

Activity-Fest

IEEE Website Requirements Specification Document

TITLE: Activity Fest

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National College of Ireland
BSc (Honours) in Technology Management

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1. Executive Summary

Activity- Fest Is an application that will allow users to book a wide variety of fun leisure activities and events in their local area and in their country.

The idea behind the concept of this project was chosen arose from an experienced that was encountered during work placements. After a long week of work undergrads found it challenging to find fun activities to do in the little free time they had. The traditional drinks and nights out were becoming a boring routine and repeated cycle. After research online was carried out for activities to do in Ireland, it was soon realized that there was not a real platform that specifies in satisfying this need for people in providing activities for people.

This encouraged me to take on this project in creating a detailed requirement specification document which tackles a real life business need and also satisfies the business analysis project of my course that I am required to do.

The project involves me gathering and documenting requirements to be implemented for the activity fest activity provider app. Initially this involves outlining all the key stakeholders involved in the application. Once the stakeholders are identified, a variety of elicitation techniques will be used in gathering requirements effectively. The main techniques that will be used are brainstorming sessions, multiple interviews with 2-3 stakeholders. 2 prototypes, document analysis, requirement workshop and a survey. This requires plenty of research behind each technique and research on how their used and when is best to use it.

The stakeholders of the project will be identified in the initial planning of the project. Their importance to the project will be illustrated in a detailed matrix.

Following the identification of the proposed techniques, they will be carried out amongst the most relevant stakeholders participating in a series of elicitation session with the aim to generate requirements from different viewpoints of each stakeholder.

The requirements will then be recorded, documented and analysed. After this process, they will be prioritized with different analysis tools which will help determine which of the key requirements will be implemented in app.

The results will be used to formulate a highly detailed IEEE requirement specification document. Within the document functional and non-functional requirements are formed and documented in detail. The results will be used by a development team to construct the Activity-Fest App

2. Preliminary Requirements Elicitation Analysis Planning

2.1 Introduction

Before beginning of the requirement, elicitation of the project a plan must be put in place.

This project involves gathering and documenting requirements for the development of a new application, which would provide users with several fun leisure activities that are available in the country they are located.

The document will be a detailed IEEE specification document with various amount of techniques used to gather requirements such as brainstorming, surveys and interviews. These requirements will be gathered from a list of stakeholders such as tourists and students.

Within the document, the used techniques, recording of the techniques used, project plan, stakeholders, recording of results, analysis of results and fully detailed requirements will be discussed and documented for the development of the application.

2.2 Business need

In the year of 2016 Ireland received 10.3 million visitors, 8.7 million in the Republic of Ireland and 2.1 million in Northern Ireland. This statistic here suggests that there are 10.3 potential users of the application just from tourists alone. Technology

is rapidly growing and an application to make this process easier seems to be very profitable. An application that helps users (e.g. tourists and student) make the process of finding and planning activities in their city and foreign cities is a great potential area for success.

The need for this application that I plan to develop is there is not an actual platform that specifies in helping the users find fun activities in their city. The development of this app will benefit its users save a lot of time and effort trying to find new places for fun and experience different categories of activities e.g. swimming and sky diving. The users will be able to plan the type of activity that they will like to do, this can depend on the weather like a warm day in the summer and they will be able find many outdoor activities to do. They can find information, budget activities based on the amount they have to spend, plan the cost of their journeys, the location and depending on the activity and receive timing information. The users can use this application across all countries, which will be a great benefit in abroad areas where they do not recognize.

This app provides a solution for the users for finding activities. The development of this app will have personal requirements that I want to have functioning on the app.

The personal requirements:

- Attractive and user friendly GUI
- Login functions (Username and Password)
- Filter settings (categories for activities)
- Provide free activities.

As progression is made within the development of the app and gathering of requirements from the techniques and meeting with stakeholders, the business needs will be satisfied. More substance will be added as I conduct the requirement elicitation techniques and document ideas.

2.3 Business Case

The business need for this application is to provide its users, tourist, student, parents and couples etc. a platform for where they can look for ideas and find

solutions in regarding activities to do in their area or in the city that they are in. There are some applications, which also provide some ideas for activities, but they are limited activities and their focus is not to provide activities but to offer deals on products, restaurants, hotels etc.

This application focuses on satisfying users experience in the activity and the experience of deciding what they would like to do. The application will provide the customers to ability to search for the types of activity they will like to do. Activities will be listed in categories based on the type of activity they are. E.g. Swimming, jet ski, canoeing will be subcategorized in water activities. The users will have the capability to find activities easily, find the location, filter pricing to their budget, book transport to the location or plan their own journeys. The aim is to make the process of finding activities easy, quick and effective.

There are some risks associated with the development of this project. Existing competitors such as Groupon and living social can hinder the ability to maximize its consumers.

There is a risk that the purpose of the app could be miss-interpreted this would lead to stakeholders creating unrealistic ideas of the app. The purpose and goal of the app will need to be very clear, distinct and definitive.

Scope creep is another risk that could be encountered as I gather the requirement from the stakeholders. The scope creep could wander the aim of the app off track from the type of requirements that will be gathered. The app purpose and goal again, will need to be clear and distinct. In addition, to prevent this stakeholder's requirements and expectations will need to be managed from the very beginning of the project.

The full scope of the project is not 100% laid out and more ideas could lead to implementations of new features. As this app will be developed, there is also precautions and notice that new features could be added as time goes.

Choosing the right developer to develop the app is a big risk that will be well maintained. For the success of the app, the right developer plays a crucial role. To prevent the issue, the developer will be fully assessed on their abilities and understanding of the app. If the developer does not understand the business need fully, it can lead them missing important requirement which will frustrate stakeholders, and add to cost to re develop. Requirements will continuously have communicated with relevant stakeholders including the business analyst and developer, before and after implantation. Updates will be continuously communicated in order to keep each party clear on the progress of the project at every stage.

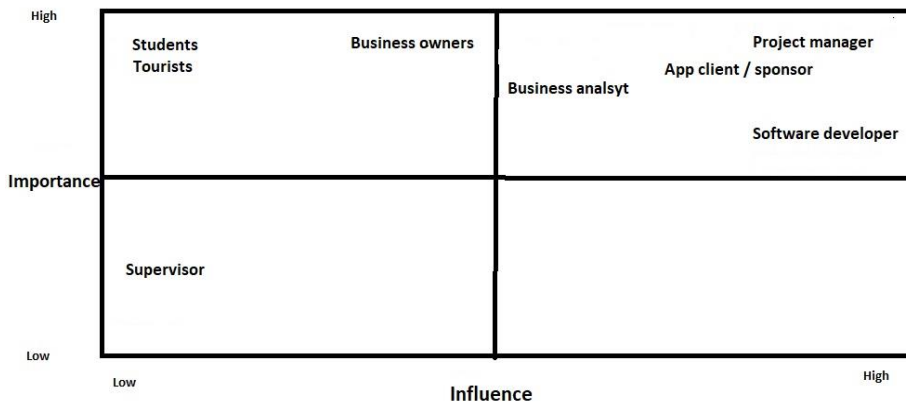
Communication is also a risk that will need to control from the beginning. The process and rules of communication will be outlined, deadlines and targets will be set in order to keep every stakeholder up to date and keeping the development progress on track with the project plan.

2.4 Stakeholder list

- Business analyst (me)

- Students
- Business owners
- Software developer
- Tourists
- App Client/Sponsor
- Project Manager
- Supervisor

2.5 Importance/Influence Matrix



Business Analyst- the business analyst has high importance on this project, as he is responsible for gathering and documenting requirements from stakeholders. His influence on building, designing the app contents and the

features that will be implemented are limited as has not specialized to do that.
(High, Medium)

Students- The students have high importance on the project as they are potential customers and their needs need to be met to be attracted to use the app. The requirements that are requested by students will be highly considered for implementation. Students will have little influence on how the app will be built and designed and how the features will be implemented.
(High, Low)

Business owners – The business owners are the activity and event providers, business owners will have high importance to the project as their businesses will be partnered and represented with the app. Business owners requirements and needs will need to be met to insure a good relationship is built and the project goal is achieved. Business owners will have medium influence on the layout in terms of which activities will be displayed first on the app but low influence on how the app will be built and designed and how the features will be implemented.
(High, Medium)

Software developers- The software developer will have medium importance on the project features and requirements, software developers will have high influence on how the app will be built designed and how the features will be implemented.
(Medium, High)

Tourists – The tourists have high importance on the project as they are the potential customers and their needs need to be met because they must be attracted to use the app. The requirements requested by the tourists will be highly considered for implementation. The tourists will have little influence on how the app will be built, designed and how the features will be implemented.
(High, Low)

App client/ Sponsor – The app client/ sponsor have high importance to the project as their requirements need to be met to ensure the purpose and goal of the app is fulfilled. They have medium influence on the design and features and development of the app, as they will be responsible for funds and special resources available.
(High, Medium)

Project Manager- The project manager has high importance to the project, the project manager will be responsible for the how the project will be delivered, delegating the work to the team, reporting and communicating concerns with the stakeholders. They have high influence on how the app will be built and the duration of the project to be delivered.
(High, High)

Supervisor- The supervisor has low importance and influence on the project. His role will be to assist the business analyst, provide help and input on recommendations.
(Low, Low)

2.6 Requirements Elicitation Techniques

2.6.1 Brainstorm

Participants:

- 1) Two Students.
- 2) Two Tourists.
- 3) One software developer.

Date of Meeting: 22nd November 2017.

Location of Meeting: National College of Ireland (1.05).

Time of Meeting: 11:00 am – 12:30 am.

Brainstorming Session Rules and Guidelines:

- 1) **No** Criticism of other people's ideas.
- 2) **One** speaker at a time.
- 3) **Arrive** at least 10 minutes before start time.
- 4) **All** mobile or electronic devices should be switched off.
- 5) **Listen** to build on others ideas and to avoid repetitive ideas.
- 6) **All** ideas are positive.
- 7) **Questions** and **Comments** will be taken at the end.

Objective: During the brainstorming session with the different stakeholders there will be an independent moderator which will document all of the different ideas presented from stakeholders. A list of app features will be gathered and documented during the session. Any comments will be also documented and defined within the document. After all the features and comments are gathered, they will then have prioritised and analysed.

Overview: The Purpose of the brainstorm session is to gather a variety of different viewpoints from the stakeholders involved. This session will provide an opportunity to hear and gather different ideas that can be incorporated in the App. This session will give some information on what features the stakeholders would like to have and the important features that the App should include.

Question asked to participants: You are away on a holiday or at home bored looking for plans to do, if an app was created to help, you find activities to do while you are away on holiday or you are in your hometown. What kind of features, ideas and requirements would you like to see on the app?

2.6.2 Survey

Survey overview

Distribution method: Google Forms.

Date released 8th February 2018

Survey Objective: The objective of the survey is to identify the demand level of certain features, and features stakeholders would like to see present in the app. large variety of the target market will be reached and the must have features will be analysed. The survey will identify viewpoints of different user’s opinion on some features and interest in the app. The survey will encourage users to provide information on features that are desired to them and outline the benefits of the app to them.

Survey overview: the survey will be constructed and a list of questions put together in order to gather requirements from a variety of stakeholders and users. The survey will be distributed and constructed using Google Forms. The aim is to receive a minimum of 100 survey results.

Survey question:

https://docs.google.com/forms/d/14JkN2eYpVKFQUpT_Uav8HHiff8UPPsdn7D0242aIZfU/prefill

1. Please, indicate your gender

- ❖ Male
- ❖ Female

2. Please, indicate your age

- ❖ Under 18
- ❖ 18-25
- ❖ 26-40
- ❖ 41-50
- ❖ 50+

3. What circumstance describes you best?

- ❖ Student (Part and Full time)
- ❖ Part-time employment
- ❖ Full-time employment
- ❖ Graduate
- ❖ Retired
- ❖ Other:

4. What Smartphone do you particularly use?

- ❖ iPhone
- ❖ Samsung
- ❖ HTC

- ❖ Huawei
- ❖ Windows
- ❖ Nokia
- ❖ I do not have a smartphone
- ❖ Other:

5. Select the 3 social media platform you use the most.

- ❖ Facebook
- ❖ Twitter
- ❖ Snapchat
- ❖ WhatsApp
- ❖ Instagram
- ❖ YouTube
- ❖ LinkedIn
- ❖ Other:

6. How often do you engage in the following leisure activities?

	Never	Occasionally	Often	Routinely
Holiday abroad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Site seeing tours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water and Amusement parks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Day Cruises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fashion events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Concerts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bar, Clubs and Pub Tours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visit Historic Sites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. In the last 3 months how frequently do you engage in the following leisure activities?

Activity-Fest

Mayo Bakare X14503817

	Never	Occasionally	Often	Routinely
Ice skating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch sports matches (in stadium)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attend evening drinks & entertainments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visit art galleries, museums and tourist sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Golfing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Play video games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Concerts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Day tours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. How useful would a price filter feature on the activities provided be to you?

	1	2	3	4	5	
Not useful at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very useful

9. What features / Ideas would you like to see on an app that provided you with leisure activities? (Max 3 features)

You answer _____

10. Which features would you like to have on an app that provides you with leisure activities?

- ❖ Free activities
- ❖ Information on public transport
- ❖ Booking events and activities through the app
- ❖ leisure activities nearby to you
- ❖ Price budget filter
- ❖ Upcoming events recommendations

11. How would like to receive information on upcoming events and new leisure activities?

- ❖ Email
- ❖ Phone notifications
- ❖ Texts
- ❖ App notifications
- ❖ Other:
- ❖

12. Activity reviews will affect my decision on choosing an activity to book.

- ❖ Strongly disagree
- ❖ Disagree
- ❖ Neutral
- ❖ Agree
- ❖ Strongly agree

13. If Incentives and special offers were provided to registered users of the app, how likely are you to become a member?

1 2 3 4 5

Not likely very Likley

14. If transport information and service were provided on the app to get you to the location of the activities, how often would you utilize this feature?

- ❖ Never
- ❖ Rarely
- ❖ Sometimes
- ❖ Frequently

15. How would you prefer the different activities to be shown on the app?

- ❖ Video
- ❖ Audio
- ❖ Image
- ❖ Text
- ❖ All of the above

16. How willingly are to you pay a subscription fee to find and have access to more fun leisure activities?

1 2 3 4 5

Not very willing Very willing

17. What is your favourite thing to do in Ireland?

You are Answer_____

2.6.3 Interview

Interview overview: Interview briefings will be sent participants of the Interviews prior to the interview date to provide insight to the topic of the interview. The briefings will outline Application Name, Interviewer Name, Interviewer Title, Interview Objective, and Application Overview, Initial proposed requirements and features and a prototype demonstration.

The briefings are to ensure full productivity will be taken advantage of in the interview once the Interviewees have a strong understanding of the app.

Interview objective: The interviews will be conducted with some specific stakeholders. From the one on one interviews more detail on features will be outlined, better insight to what each stakeholder wants will be generated and any issues that may not stand out using the elicitation techniques will be identified. Interviews with a couple of stakeholders, (Software developer, Tourists, App Sponsor) will be undertaken.

Detailed information from each different perspective will be gathered to ensure the requirements gathered are airtight. Set dates and times with each interviewee and set locations will be delegated. The interview notes will be taken and answers will be recorded and documented.

Interview one

Participant of interview: Software Developer.

Interview Location: Trinity College.

Date of Interview: Wednesday 21st February 2018.

Time of Interview: 15:00pm – 16:30pm.

Interview Preparation: The software developer is briefed and provided with the project idea and features gathered from previous techniques (Brainstorm and Surveys) prior to the interview. The software developer will be the creator and developer of the app.

Interview Objective: The objective of this interview with the software developer is to gather some functional and non-functional requirement, ideas on the design and layout of the app and possible risks that might be faced.

- 1). what are your initial thoughts of the App idea?
- 2). How will each feature be implemented? What is the process, technologies needed and risks involved in implementing them?
- 3). what features can be definitely implemented on the app?
- 4). Where would think activity reviews be located on the app? How beneficial would this feature be?
- 5). what payment methods do you suggest be used? What are the security risk and measures to overcome the risk?

- 6). what do you think can be used to measure the distance of the location of the user to the location of each activity/ event? Is there a specific application needed to do this? What is the application if so?
- 7). what issues are likely to be faced in developing the app?
- 8). what features can you suggest to track user-buying patterns?
- 9). How useful would a subscriber feature be? What way do you suggest we go about notifying users of activities and events?
- 10). If you could leave out some features for an updated new version of the app what would it be?

Interview Two

Participant of interview: App Sponsor.

Interview Location: Huntstown Community Centre.

Date of Interview: Saturday 24st February 2018.

Time of Interview: 18:00pm – 20:00pm.

Preparation of Interview: The App Sponsor is an owner of a tourist agency who wishes to use this app to reach into a bigger and wider market.

Interview objectives: The objective of the interview is to provide insight to what important features and requirements must be implemented. Identify what objectives the sponsor wishes to gain from app. In addition, to identify features that will be utilised on the App

- 1). what are your initial thoughts on the app idea?
- 2). what are the most important must have features that will need to be implemented?
- 3). what are the process of each of these features?
- 4). what social media platforms would be suited for investments for marketing, and creating sign up accounts for the app?
- 5). what are the main functionalities you wish the application to have on each page? (Presented with sample Home page, Activities page, registration page and booking page).
- 6). which booking payment methods would you recommend?
- 7). what features do similar apps or websites have that we could improve on for competitive advantage?
- 8).How beneficial would this be for the success of the app and user's satisfaction? (**Features from question 7**).
- 9). should a website and app be developed for this idea and why

Interview Three

Participation of interview: two Tourists.

Interview Location: Trinity College.

Date of Interview: Wednesday 28th February 2018 & Tuesday 20th March.

Time of Interview: 15:00pm – 15:45pm.

Preparation of Interview: Tourist will be briefed and provided with the project idea and features gathered from previous techniques (Brainstorm and Surveys) prior to the interview.

Interview Objectives: The objective of the interview will be to develop ideas & features and to gather insights to what issues tourist generally face when finding activities, and to determine how the app will aid to solve some of these issues.

Interview Three

Participation of interview: Tourist

- 1).** what are the main activities you do when you come to Ireland?
- 2).** what difficulties do you generally face when finding activities when you come to Ireland?
- 3).** what features can you think of that will help make finding activities easier?
- 4).** what social media accounts do you feel should be incorporated based on your activity level on that social media?
- 5).** Do you use or aware of any apps, website, tourist guides or equivalent to find activities? What flaws they have and areas you wish they could improve on?
- 6).** Preview videos and pictures of activities are a planned feature to be implemented into the app, how could we further improve the feature that would grab your attention?
- 7).** When looking for activities e.g. site seeing and tours, what are main Information you looking for to be provided with?
- 8).** would you join / register on a subscription service if it provided you with exclusive notifications of events or activities?
- 9).** How would you like to receive notifications about events and activities?

2.6.4 Prototype

Prototype overview: Prototyping will be used to elicit the needs of stakeholders that will lead to the design of the app and the requirements that will be implemented into the app. It will also create the users experience, provide design options and provide the foundation for developing the final business solution.

It is important to use prototyping as you can visualize all the stakeholders' needs on the prototype of the app. The end users can provide feedback and their opinion in the early development stage and this will allow stakeholders to give criticism that is more constructive since it is not published, and is a mock up. The changes will be considered and documented for improvement a second prototype will be created with the changes implemented.

Prototype objective: The prototype will serve as the visual representation of app. The prototype will be being used to illustrate all the needs and requirements of the stakeholders.

The results of the survey interview and brainstorm will be illustrated on the prototype. In final, the prototype will give a wireframe as to how the app will look and the functionality it will have.

The prototype will be low fidelity type produced with balsamic. It will visualise the pages and also the navigation of pages.

2.6.5 Document Analysis

Document analysis overview: Document analysis is used to elicit business analysis information, including contextual understanding and requirements, by examining available materials that describe either the business environment or existing organizational assets (Babok, 2017).

Document analysis Objective: This technique will be used to find information on ranges of features that are popular amongst competitors. Similar documents and platforms to this app will be reviewed to find solutions on how to implement requirements. Documents regarding rules and regulations will be analysed to provide requirements for safety of users on the application.

2.6.6 Interface analysis

Interface analysis Overview:

Interface Analysis is an elicitation technique that helps to identify interfaces between solutions/applications to determine the relevant requirements to make sure that the components interact with one another effectively.

Interface analysis Objectives: This technique will be used to gather requirements for interfaces needed for each stakeholder. Discussion were made to decide which interfaces should be included and how stakeholders will be able to interact with the finished product. This will be done through review of similar projects and their interfaces to incorporate some of their solutions.

2.6.7 Requirements workshop

Participants

- 1) Business analyst – Coordinator of the requirements workshop.
- 2) App sponsor- App funder and tourist agency owner.
- 3) Tourist – End-user.
- 4) Student- End-user.

Workshop Preparation checklist:

- Identify key stakeholders participating in the requirements workshop.
- Define objective and agenda of workshop.
- Define workshop session duration, location, date, time.
- Identify all resources required for workshop session.
- Acquire all resources required.
- Invite all participants via Email or text.
- Confirm attendee's availability.
- Conduct other eliciting techniques.

Workshop Location:

Huntstown Community Centre.

Date of Workshop:

30th March 2017.

Time of Workshop:

6:15 – 8:15pm.

Requirements workshop Objectives: The primary objective of the requirement workshop is to discuss the layout and design of Activity Fest. The discussion is based around what the stakeholders demand levels are on how the App pages should be structured, the layout, which features will be implemented on certain pages and how the navigation process will flow. This is executed by firstly evaluating prototype version 1 that is created from requirements gathered from previous techniques. Changes made will be addressed in this stage. Secondly, stakeholders will explore and evaluate competitor apps and pages to identify ideas that can be generated, strengths and weaknesses.

The secondary objective is participants will have the opportunity to provide new features and requirements they have come across.

Lastly, further validation and follow up on requirements gathered from stakeholders. The validated requirements will then be prioritized with stakeholders based on demand and preference levels. Notes and documentation will be taken throughout the workshop.

Agenda:

1. Define what a workshop is.
2. Define the purpose of the workshop and the reason of carrying out the workshop.
3. Define each participant's role in the workshop.
4. Outline the house rules of the workshop.
5. Outline the outcome and objectives of the workshop detailing what needs to be accomplished upon completion of the requirements workshop.
6. Evaluate the first prototype amongst the stakeholders participating.
7. Assess some competitor apps and websites amongst the stakeholders participating.
8. Discover new relevant requirements that may have been discovered during.
9. Ensure mutual agreements amongst all stakeholders with new features, layout and design.
10. Prioritize initial gathered requirements with MSCW solution.

Requirements workshop Rules:

- 1) **No** Criticism of other people's ideas.
- 2) **One** speaker at a time.
- 3) **Arrive** at least 10 minutes before start time.
- 4) **Mobiles or electronic can only** be used for research purpose to meet agenda.
- 5) **Listen** to build on others ideas and to avoid repetitive ideas.
- 6) **All** ideas are positive.
- 7) **Questions** and **Comments** will be taken and addressed in the end.
- 8) Collaboration is an important prospect of the workshop so respect for all participants is a **must**.
- 9) All participants must maintain standard level of **professionalism**.

Requirements workshop Resources required

- 1) First prototype of initial app interface.
- 2) Meeting room in Community Centre.
- 3) iPhone.
- 4) Brainstorm Sheet to take down ideas.
- 5) Acer Aspire Laptop.
- 6) Microsoft PowerPoint for displaying prototype.
- 7) Microsoft Word for prioritisation and documentation.
- 8) Food and Drinks for participants.

Workshop Outcome:

- The outcome of the requirement workshop will be notes and documentation of the prioritization and validation of requirements.
- Documentation and notes of requested changes to prototype version 1 in regards to layout, design and features.
- Finalized visual idea for prototype version 2.

3. Requirements Elicitation Techniques Results**3.1 Brainstorming result and report.**

The brainstorm session was carried out successfully and went according to the time schedule. All ideas and comments were documented and recorded. The stakeholders provided some valuable ideas, which will be prioritised and discussed with the project manager and app sponsor before being chosen for implementation. The chosen prioritization technique that will be used is the MoSCoW solution, which will also involve discussion with the Software developer.

Students The main issues they were having is that when they were abroad it was difficult sometimes to find new things to do other than drink in clubs or in bars. It was quite fun to get intoxicated which often led to an adventure, but in terms of actually finding activities to do, they were not always in good luck unless research was done before travelling. They mentioned that they would like to have local activities provided for them on the app, a distance where they could easily walk to their destination. With the local activities, they also said the distance of the activity from their location should be stated, as it would be very beneficial in deciding whether they would like to participate. As students they believed that not every fun activity should cost a sum of money, they would love to be aware of free activities including fun fairs in the park, sports days and cultural events. The activities on the app needed to have a lot of information before they decide whether they would like to participate. The activities should provide insights to what exactly is involved in the activity, equipment needed and the duration of the activity. They mentioned that they need to be mentally prepared for whatever activity they are about to participate in. Providing this information would allow them to set appropriate expectations to prevent them becoming disappointed. Recommendations as to what the popular activities are in the area would be very beneficial, also based on the activities they have looked at they have looked at and purchased, the app should discover what kind of activities they are interested in and more activities suited to them should be recommended. In the purchasing of activities, they should be able to book activities through the app as links to other pages for bookings are already annoying as it is. The app should produce vouchers or ticket scanners that you can scan with your phone instead of printing out tickets. They mentioned that printing out tickets was very inconveniencing. Finding directions to the activities is also an activity in itself, so directions to the activity or events directly through the app would be a huge benefit to them. An additional feature to the directions would be the app suggesting bus or train services they could get directly to the

activity would be also helpful the duration of their journey included would be a bonus. They also insisted that the cost of taxis should be provided exactly as it is on google maps. This would be very beneficial as they would be able to plan spending budgets. Since they would like to use the app while they are away in different countries a list of different language options should be included in the case that the country they are visiting's first language is not English. Lastly, although there are many features and ideas they would like to have, simplicity is one of the biggest factors. The students said they would be completely turn away from the app if it were not user friendly and easy to operate.

Tourists: The app idea would be very beneficial and classed as an essential when travelling away for fun holidays abroad. The tourists approved of the ideas and features made by the input of the students. The tourists mentioned that in the app there should be an availability checker to see what date and time the activities are free to be booked. This prevents those buying tickets to an activity and when they finally arrive at the activity, they cannot participate because the activity is already at full capacity. The tourist said they would like a reminder that they have booked activities and it should remind them of date and time. The tourist said that activities should be sorted in categorical organisation, this would be beneficial to them because if they are going to travel to a hot country, they may just focus on plenty of water activities because it is suited to the weather. The activities should be in categories such as water, outdoor, adventure, nightlife, and so on. As tourist they always have planned budgets and limits at to what they can spend on certain things, they insisted that the activities should be able to be filtered by the price. A user should be able to put activities less than 50 euro and only activities within that price range should be displayed. The tourist said part of the reason for their travels is to experience different cultures, they would love to see cultural tours, historic sites and traditional events within the app. They also said that they would like to see notices for upcoming events so that they can plan to visit the country when there is a big event-taking place. They often hated when they have booked their return tickets back home just days before popular events takes place. An important feature they would like to see is a reviews section on each of the activities. They mentioned that they would like this because they will be able to set their expectations for the activities they are participating in. The reviews will also be able to allow them to decide what activities they will purchase. Lastly, they wanted to be able to receive discounts on the app for activities, this will persuade them to using the app above other choices.

Brainstorm: Two Tourists & Two Students

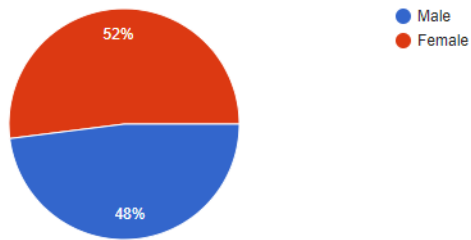
Requirements gathered.

1. App should provide local activities.
2. App should provide user with distances of activities in Kilometers.
3. App should provide free activities.
4. App should provide cultural events, tours and historical based type of activities.
5. App should provide description of what is included in the activity.
6. Apps should provide information of equipment necessary to participate in the activity.
7. App should provide duration of activity.
8. App should provide recommendations based each users preferred activities.
9. App should be able to track user preference in activities.
10. App should have in app purchasing.
11. Users should be able to scan tickets with their phones.
12. App should provide directions to activities.
13. App should suggest bus or train services to users.
14. App should provide approximate taxi fares from location to activity.
15. App should provide language options.
16. App should be very simplistic to use.
17. App should be user friendly.
18. App should provide availability checker for activities in dates and times.
19. App should sort activities in categories based on type of activity it is.
20. App should allow users to filter activity by price.
21. App should provide notifications of upcoming events and activities.
22. App should send reminder notifications on time and date of activities booked.
23. App should provide reviews of activities.
24. App should provide discounts offers when a user books a certain amount of activities

3.2 Surveys results and report.

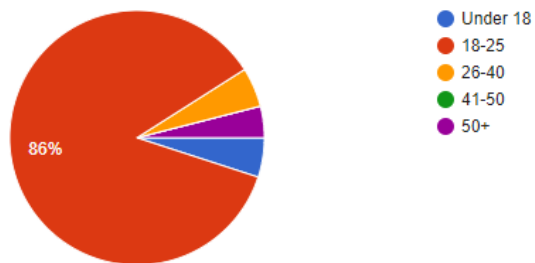
1. Please indicate your gender

100 responses



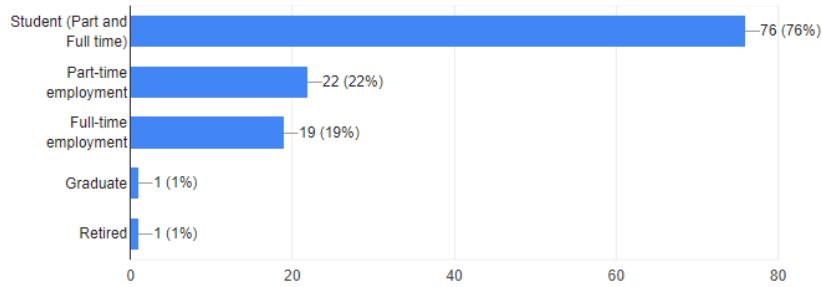
2. Please indicate your age

100 responses



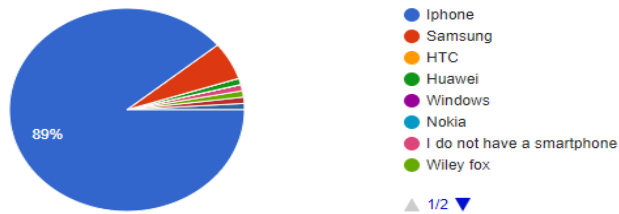
3.what circumstance describes you best ?

100 responses



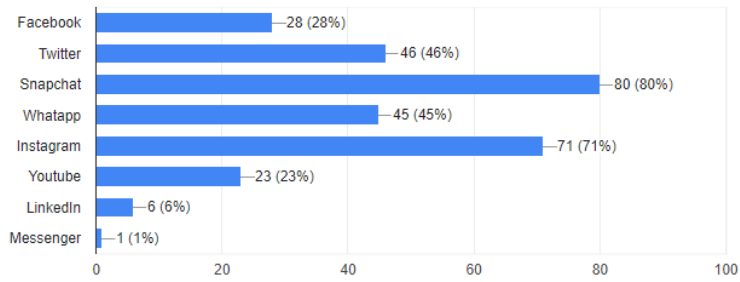
4.What Smartphone do you particularly use ?

100 responses

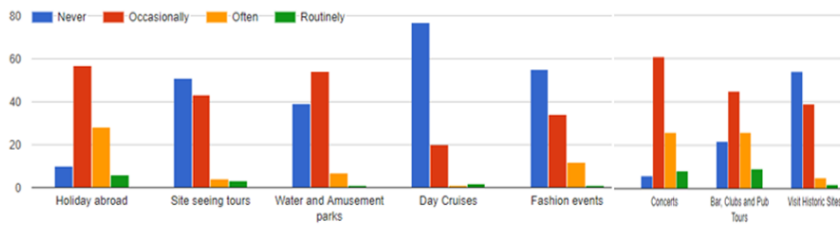


5. Select the 3 social media platform you use the most

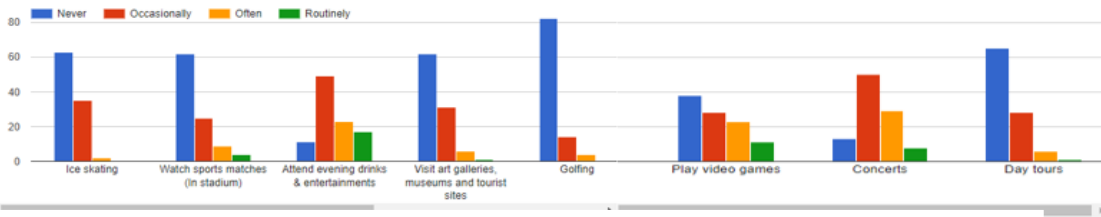
100 responses



6. How often do you engage in the following leisure activities ?

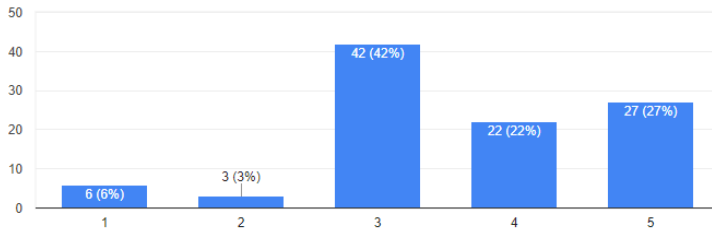


7. In the last 3 months how frequently do you engage in the following leisure activities ?



8. How useful would a price filter feature on the activities provided be to you ?

100 responses



9. What features / Ideas would you like to see on an app that provided you with leisure activities ? (Max 3 features)

100 responses

- Price, location (2)
- Sports and gym (2)
- Training courses (2)
- Location, price and duration (2)
- Worth money activities (2)
- Discounts , free passes (2)
- Price, location, contact number (2)
- Local activities
- None.
- Ability to compare to other prices
- Recommendations
- Upcoming activities and save your favourite activities

- Information
- Not sure
- Location, price, time
- To see who else is doing activities
- Locations close to me
- Place Prices and how to get two the place
- Budget filter
- Things to do in your area or close to your location
- Budget filter
- feedback
- Price filter
- Price, times, most popular events taking place

Areas they're available
Comparisons
Good descriptions
Location
Categories
Availability timings and price
The venues capacity, prices and ways of public transport
Dunno
Times, price & dates
Go filters n a wide range of options
Reminder

Top rated activities in an area
Closest activity
Age suitability, directions and prices
Don't have a phone so none
Price,
Place, Price, Rating
upcoming activities near by
Yes
Things to do and places to go on nights out
Bus, time, food
Time Duration, Transport, Most popular activities

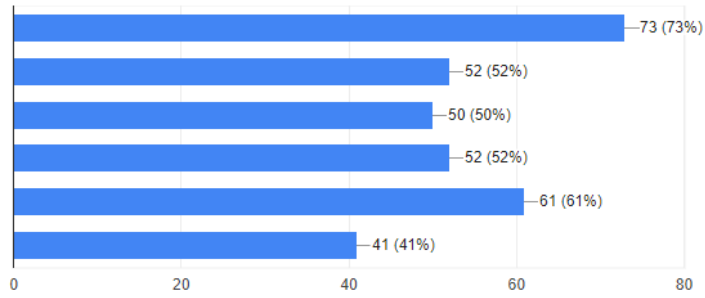
Price and location, examples of past activities/events, pictures
Deals for students or weekday deals
Student discount availability, special offers/group deals available at the time
•Events by BBE •Events for people visiting dublin •Too restaurants to visit
Availability, price
Videos
Video games
Price, availability, location
Different events
How many times someone watches your snaps
Screen shot without notification

Free activities, Location, timing, pre pay information
What's happening on the present day
Shj
Booking things using app
Good activities
Ratings and written reviews. An alternative option for people who can't partake in certain leisure activities. Price
Information on activities etc video of te activities
Pictures of the place, budget
maps
Best deals(group) , discounts, suggestions of other leisure activities
Specials/offers, reviews,

Transportation, 3D printing
How to get to the activity (and distance) and prices
Booking on the spot
Easy access to communicate with the with others
Price, booking and transport
Price
Budget , maps , google
I don't understand this quèstion
Who I know that is going
Directions, reviews, price, deals,
Booking, price and transport
Prices, age group it attracts
.....
Competitions
Information, easy booking, reviews
Don't know to be honest
3-4 pics, reviews are very important to me, also recommendation on best time of year to visit or partake in that activity
Simple no clutter and easy to use
Price, location details, time start/end
Category, location and price

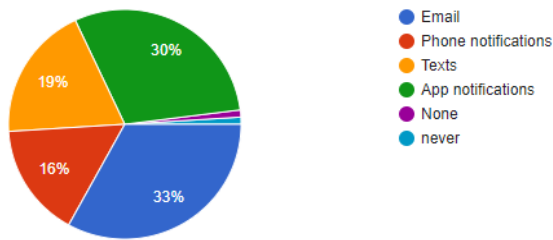
10. Which features would you like to have on an app that provides you with leisure activities ?

100 responses



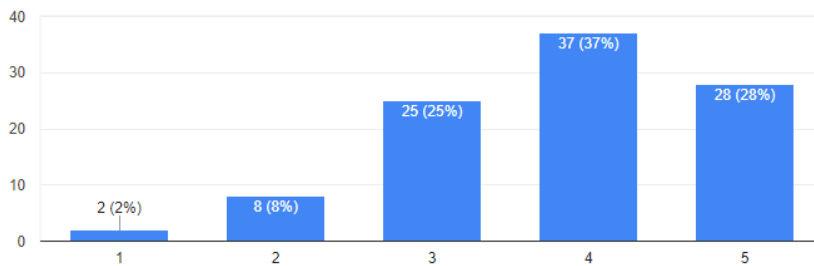
11. How would like to receive information on upcoming events and new leisure activities ?

100 responses



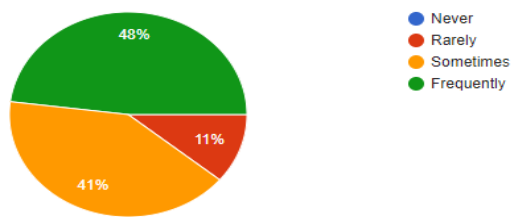
13. If Incentives and special offers were provided to registered users of the app, how likely are you to become a member?

100 responses



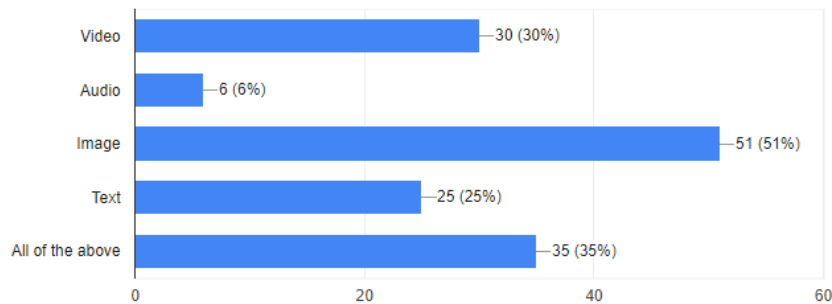
14. If transport information and service was provided on the app to get you to the location of the activities, how often would you utilize this feature ?

100 responses



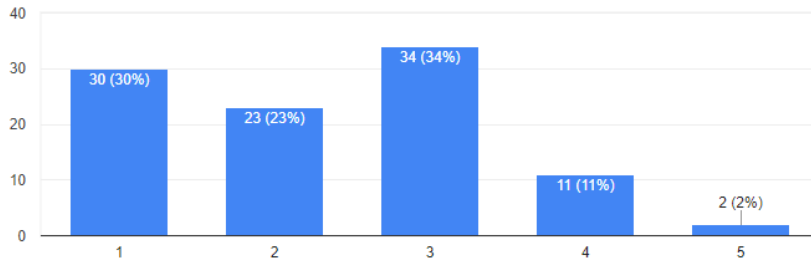
15. How would you prefer the different activities to be shown on the app?

100 responses



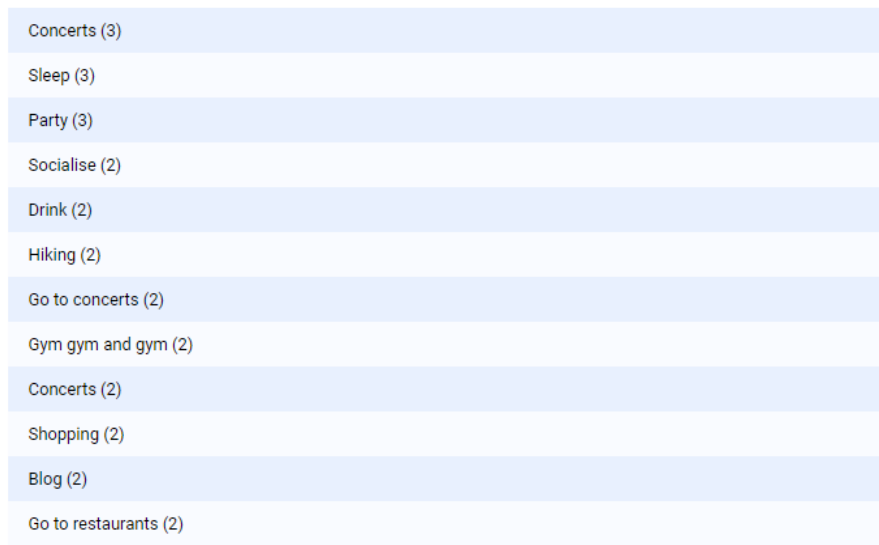
16. How willingly are you pay a subscription fee to find and have access to more fun leisure activities ?

100 responses



17. What is your favourite thing to do in Ireland ?

100 responses



going out for some drinks (2)
Traveling (2)
Drinking (2)
Site seeing
Visit casual restaurants
Spend time with friends
Drink pints
Visit art , galleries and musuems
Visit art galleries
Movies
Have the craic
Nothing Ireland's fucked

Concerts, cinema, bars
Drink Guinness
Sports
walking
Festivals
Go out to different bars and clubs
Road Trips
Netflix & Chill
Sports
football
Outdoor activities
Nightlife

Eat out in restaurants.
Clubbing
.
Session
Chill in a park or somewhere nice with friends
Walk around Dublin City
play football
Nothing
Drink alcohol
Sightseeing
Walks in the park with bae, enjoy the city night life, be with friends, play ball
Eating in different restaurants

The Survey Conclusion

The Survey was completed by a wide variety of stakeholders, variety in terms of the age, gender, occupation and interest. Because of this, I was able to collect a huge range of viewpoints during the process of the survey and I was able to obtain many information and potential requirements that can be used in the analysis stage of the project. This was my initial objective of the survey and thanks to the generous stakeholders; I am now able to draw out a huge amount of requirements from various different types of stakeholders. There is a fair split between male and females participants, but 86% of overall participants were in the range of 18-25 years old. This suggest to me that the app should be simplistic and the activities will need to be fun and engaging.

76% of the participants are students working either part time or full time, this suggest to me that prices of the activities will need to be quite timid as, financial stress on students are often difficult. The activities need to be quite affordable for many students to participate without too much cost on the pockets.

89% of the participants use IPHones and 6% use Samsung, this is a huge and important indication that the app should work flawlessly on the IOS devices. Even though Samsung users result to 6% of the participants, the app will also work on the Android devices. With these two devices and based on the survey results 95% of potential users use either IOS or Android devices.

An interesting observation was made on the social media usage; Twitter, Snapchat and Instagram are the three most used social media platforms. The app will need to incorporate amongst these three platforms but a final decision is yet to be confirmed with Facebook and YouTube. Personally, they are quite important to have incorporated with the app.

Within question 6, 85 participant confirmed that they "always" or "occasionally" travel on holiday; this confirms that the app potential will be useful for travelling. 43 participants occasionally like to go site seeing, 54 participants occasionally like to go to water and amusement parks 55 participants never attend fashion events. 61 participants occasionally attend concerts. The result in this is that more concert, holiday activities will be researched and used in the app and fewer fashion event will be included in the app.

Over 60 participants in the last 3 months participated in football matches, visit art galleries, golfing or day tours. Many factors could have affected these results including exams, weather, and the Christmas period. From this in the period of winter and early spring, limited amount of these types of activities will be included.

91% of participants felt on a scale of 3-5 about a Price range filter, this indicates that will be a useful and important feature.

73 participants indicated they would like to have free activities on the app. 52 indicated they would like to have information on public transport. 50 participants would like to be able to book activities through the app. 52 participants want to be able to locate activities which are close to them. 61 participants would like to have a price range filter and 41 participants would like to receive

recommendations on upcoming events. The distribution between the features participants would like to have on the app are close range within each other, which indicate that all features will be favourable on the app.

33% of the participants suggested that they would like to receive notifications through email, while 30% of the participants suggested that they would like to receive notifications through app notifications. The main source of notifications will be delivered through both email and notification.

62% of participants said that they strongly agree or agree that reviews would affect their decisions in which activities they will take part in. overall there is a sense that reviews would indeed be helpful for the users of the app. Therefore reviews will be included in the features of the app.

90% of the participants said that on a scale of 1-5 they felt 3-5 likely to register as a user on the app if there were incentives provided for the registered users. Incentives and offers will be provided to registered user as a strategy to accumulate plenty of users for the app.

48% said they would "frequently" use the transport service information if it were implemented feature. 41% said they would "sometimes" use the transport service information if it were implemented feature. This suggest transport information should be provided to users 89% suggested that they would really utilise this feature.

50% of participants said they would like to see Images of activities to be shown on the app. 35% of participants said they would like to have videos, images, texts and audios. With over 1/3 suggesting their preferences, all of the above will be featured on the app. Majority of the participants scored 1-3 in a rating of 1-5 to the question of "How willingly are you are pay a subscription fee to find and have access to more fun leisure activities?" This suggests that the subscription feature may be left out.

From question nine, the most popular features given by the participants were that they would like student discounts, location information, activities located near users, comparing prices of activities with other companies providing same activities. The participants wanted to be able to save their favourite activities, and be provided with reminders of their booked activities. Participants also want the app to be very simplistic and easy to use.

The most popular type of activities provided by the participants were, concert, training courses, visiting art galleries, site seeing, museums, bars and clubs and sports activities. This indicates the type of activities that will be provided in the app for users to book.

Survey requirements gathered.

1. App should operate on IOS and Android devices.
2. App should incorporate with snapchat, Facebook, Twitter, Instagram and YouTube.
3. App should provide activities in all European countries.
4. App should provide wide variety of "different activities".
5. App should have a price range filter.
6. App should provide free activities.
7. App should provide information on public transport.
8. App should allow users to book activities through the app.
9. App should provide activities in local areas to the user.
10. App should send recommendations to users on upcoming events and activities.
11. App should send notifications through email and app notifications.
12. App should provide reviews on activities.
13. App should display pictures, videos and audio of the activities on the app.
14. App should have discounted activities.
15. App should have information on the location of the activities.
16. App should compare prices of their activities to other organizations.
17. Users should be able to save their favorite activities.
18. User should receive reminders of their activities booked.
19. App should be simplistic and user friendly.

3.3 Interview results and report

Interview one Questions and Answers.

Participant of interview: Software Developer.

Interview Location: Trinity College.

Date of Interview: Wednesday 21st February 2018.

Time of Interview: 15:00pm – 16:30pm.

Q1. What are your initial thoughts of the App idea?

The Software Developer mentioned that the app was a “wonderful and profitable” idea. He indicated that many people including tourists, students and “people here in Dublin” are not aware of different fun activities to do other than clubs, cinemas etc. in the country. Lastly, he said that a popular platform that people can turn to, to be adventurous, find things to do is missing, and that is what the app can provide.

Q2. How will each feature be implemented? What is the process, technologies needed and risks involved in implementing them?

Based on the initial features gathered from the Survey and Brainstorm sessions. *

Price budget filter- The Software developer said he would create the app using Python Programming language. For the price filters feature there will be an algorithm used for users to input the exact budget amount. A maximum and minimum bar will have both a drop down menu going up and down in 10 euros. The bar will allow users to input the exact amount. If no activities are within the price setting a pop up will display “No activities available, please search again”. If there are activities, a list of activities will be displayed according to what the user selected. Risk: only risk occurs if not implemented correctly and the feature does not work.

Transport service information – The Software Developer mentioned that Google map JavaScript’s API would be needed for this implementation to allow the app to locate activities location. GEO location features would be used to locate the user location and measure distance to activities. With the implementation of the two, buses, transport information, and a map would display to show which bus and route to take. The users will have the option to just input their own currently location in text. Risk: Privacy issue, if user does not turn on location on their phone the feature will not be as useful.

Video and picture of activity- The Software Developer insisted the easy way is to implement a link on the app where users can send their videos of them on the activities, with consent edit them, and use them as preview with a link from YouTube. YouTube channel must be created. Pictures can be saved into a database and uploaded with admin access on the app for display. Risk: YouTube deletes YouTube crash, or reported videos.

Notification for upcoming events – The software developer stated that an interlinked relationship with business partner's database, servers and app where if they make an update I will receive an update. Google firebase will be the required database. The notifications can be sent to email, phones or app notification pop ups at assigned times. Risk: Database or server crash issues.

Booking activities through app- The Software Developer said Credit Card payment should be incorporated. The payment process should be with PayPal and verify through visa for safe payments. The users should be able to add to basket and click "check out" and an "add more" feature in case more activities wants to be purchased. Time and date availability will be incorporated to see if activities are available on certain days. A timer should also be included so users have "10 minutes" to book the activity to make sure availability is not wasted. Risk: "There are always risks of fraud".

Login/ register features on the app- The users should be able to login with Facebook and twitter. The accounts will allow users to prove they are a real person and get interest, contacts from their pages. For logging and registering the user's passwords will be displayed in "*". The user's passwords should have one capital letter a number and minimum of eight characters. E.g. Activityfest2018.

There will be 2-way authentication for first time login. When registering they will be asked for emails, name, age, address, gender, contact number and interests and a verification code sent to email for activation.

Q3 what features can be definitely implemented on the app?

The Software Developer mentioned that all features could be implemented. He also stated, "They all have their own level of difficulty" The Notification implementation with businesses and sharing of server may be really and expensive feature to implement.

Q4 where would think activity reviews be located on the app? How beneficial would this feature be?

The Software Developer said the reviews should be located under each activity in form of "5 Gold stars". A link should be displayed in faint colour stating "reviews", the link will bring users to a page where full reviews from other participants of the activities. The reviews should also give a full description of the activities and state the number of reviews given. A user will have a box where they can leave their own reviews with a submit button.

Q5 what payment methods do you suggest be used? What are the security risk and measures to overcome the risk?

The Software developer suggested that PayPal and verification from Visa should be used for a secure payment. He also suggests that we should incorporate the app with PCI DSS, which are data security standards used for enhancing payment accounts data security. He mentioned, "You can never fully prevent fraud and web attackers". The risk should be minimised with the PayPal Payment and incorporation of PCI DSS.

Q6 what do you think can be used to measure the distance of the location of the user to the location of each activity/ event? Is there a specific application needed to do this? What is the application if so?

The Software Developer said Google API and Geo Location features would be appropriate tool to use measure distance between location of user and activities/event. The process would be similar to operating transport services the Geo location API has features to measure the location of your real time location.

Q7 what issues are likely to be faced in developing the app?

The Software Developer said the likely issues developing the app would be that time would be a big factor, the implementation and connection of web servers, databases and APIs need to be tested several times to ensure its safe working as its suppose to. Each line of code will need to be reviewed. To prevent user data from being lost, a backup storage must be refreshed daily.

8). what features can you suggest to track user-buying patterns?

The Software Developer said the app could be logged in and incorporated with Facebook to find user traits and what they like. Cookies will be implemented and the app will allow users to accept if they will allow the cookies to be used. This will be first asked when it is the first time a user's phone has used the app.

9). How useful would a subscriber feature be? What way do you suggest we go about notifying users of activities and events?

The software developer said he does not think there should be a subscriber feature, as apps are downloaded "If there are not continuous updates of activities on the app, there would not be much to be subscribed to" He also insisted that subscribed users should get a discount on an activity for subscribing. The developer said that notifications on emails, on the app or text should be sent out every weekend or Friday.

10). If you could leave out some features for an updated new version of the app what would it be?

The software developer said in quotes, "I would leave out continuous updates notifications, in the sense that when activity business update their own pages, we would get the update through the database and servers. To get the databases/servers in sync could lead to privacy issues, trust issues, miscommunications and more."

Interview one: Software developer**Requirements gathered.**

1. App should be built with Python programming language.
2. There should be a minimum and maximum search bar for price amounts.
3. Drop down menu of price amounts going up and down in 10 euros.
4. Input bar for exact price amounts.
5. Pop up box displaying “No activities available please search again”. (If no activities avail of within price range).
6. Submit button for entering activity search criteria’s.
7. App should Incorporate Google map Java script API.
8. App should Incorporate Geolocation API
9. Users should be able to input current location in text manually.
10. App should be able to use the “user’s location”.
11. App should incorporate a YouTube link for video previews.
12. Admin should be able to upload pictures of activities with admin access.
13. App should be able to send notifications via Email, texts, notification pop ups.
14. App should be able to send notifications on a weekly schedule.
15. App should Incorporate PayPal.
16. App should Incorporate Visa verification.
17. Users will be able to add to basket and checkout.
18. Ten Minute timer counts down from when user clicks “add to basket”.
19. User should be able click on “add more” to add more activities in basket.
20. Time and availability button should be beside “add” to basket button to check availability of activity.
21. Users should be able to login and register with Facebook and Twitter.
22. Password should be displayed in *
23. Passwords must have at least one number, one capital letter and eight characters.
24. User must input name, contact number, interest, gender and email when registering.
25. App should send verification code to email when registering for activation
26. Reviews should be located in gold stars of five under picture of activity.
27. Review link should be display under activity
28. Review page will display review information and activity description.
29. Review box should have “submit” button to add reviews.
30. App should Incorporate Payment cards industry data security standards.
31. App should display distance between their location and the location of selected activities.
32. App should incorporate cookies.
33. APP should display pop up of accepting use of cookies.
34. App should have a subscription button.
35. Activities amount reduce by 20% for first purchase when user subscribes.

Interview Two Questions and Answers

Participant of interview: App Sponsor.

Interview Location: Huntstown Community Centre.

Date of Interview: Saturday 24st February 2018.

Time of Interview: 18:00pm – 20:00pm.

Q1. What are your initial thoughts on the app idea?

The app sponsor said that Activity Fest was a great idea, a “go to platform” to find activities in the industry is missing. From an entrepreneur point of view, the idea and features can make Activity Fest quite profitable.

Q2. What are the most important must have features that will need to be implemented?

The App sponsor suggested a list of ideas and features. The app sponsor mentioned activities sorted in different categories based on the type of activity. Price budget filters, review pages, displaying location and address of activities, login and register features, remember password options, booking activities through the app, description of the activities, ratings, activities located close to the user.

Q3. What are the process of each of these features?

The App sponsor described the process of some the features and how the feature will be used. Some of the given processes are the same as the software developer, so listed below are the different features and processes.

Firstly, the home page will display Logo in middle of the page when the app is first opened and loading.

Price Filter will display a min and max criteria bar where the user will simply click “filter” to input the minimum and maximum price.

Activities sorted in different category’s based on the type of activity--After homepage is loaded, a page will display 3 activities with a button stating “Search more activities” on this page the users will be provided with different categories of activities such as “water” “Outdoor” “tours” and “Upcoming events”.

Review - (Same Process as Software developer).

Login / Register- (Same Process as Software developer).

Search activity by name –Users will have a search bar where they can input the name of the activity they want.

Booking through the app - (Same Process as Software developer)

Q4. What social media platforms would be suited for investments for marketing, and creating sign up accounts for the app?

The app sponsor proposed we used Facebook Twitter, YouTube. "The Facebook and Twitter accounts can verify if they are real accounts, they can generate their interests, hobbies and personality traits and YouTube can help show some of our cool activities on the app."

Q5. What are the main functionalities you wish the application to have on each page? (Presented with sample Home page, Activities page, registration page and booking page).

The app sponsor provided some initial functions that should be functioning on each of the provided pages.

Homepage 1 – loading page with logo.

Homepage2 -sign in, search activities, display some activities, and "Search more activities button".

Registration page – Name, Age, Email, click on images to ensure they are not a robot, questionnaire for type of activities they enjoy.

Booking Page – add to basket, availability, total amount, and checkout, PayPal or Verify by Visa. Order successful or failed.

Q6. Which booking payment methods would you recommend?

The app sponsor mentioned that PayPal or incorporate third party security experts.

Q7. What features do similar apps or websites have that we could improve on for competitive advantage?

The app sponsor said that when he is on holiday abroad he normally books hotels through TripAdvisor. Within the app, they provide him with some local activities. The issues he normally faced were, no transport information, activities were being displayed but they were never available due to dates and times, finally they were boring old activities.

The app sponsor said how we could keep get an advantage is always providing popular activities and keep up with our target market. Communicate with them with surveys, questionnaire and notifications.

The app sponsor mentioned additional features.

Display weather conditions for the day of the activity.

Video or people providing good feedback of activity and service.

Similar activities suggestions.

Currency changer.

Language translator.

Q8. How beneficial would this be for the success of the app and user's satisfaction? (Features from question 7).

The app Sponsor said that if all features are implemented correctly and usability is simple and easy to navigate, then the app could be successful.

Q9. Should a website and app be developed for this idea and why?

The app sponsor suggested that Activity fest should remain just an app for now, and if the app is successful, it will determine whether to create a website following on.

Interview two: App Sponsor

Requirements gathered.

1. Activities should be sorted in categorized based on type of activity.
2. User should be able to sort activities based on price limits.
3. App should incorporate reviews page.
4. App should display location and address of activities beside the name of the activity.
5. Users should be able login and register with Facebook and twitter.
6. Users should have options to save password.
7. Users can book activities through the app.
8. App should display description of activity.
9. Rating of activities should be located under each activity in stars of 5.
10. App should display activities close to user's location. (20km radius)
11. Homepage1 should have logo in middle of page while page is loading when app is first opened.
12. Users can input exact amount in minimum and maximum price filter.
13. User can search for more activities with "search more activities" button.
14. Users can search activities by name on search bar.
15. Registration page should have Name, Age, Email, click on images to ensure they are not a robot, questionnaires
16. Homepage2 should display some activities
17. Users should be able to check availability of the activities by available time and dates.
18. Users should be able to pay via PayPal and credit Card
19. App should ask for verification code.
20. App should display weather conditions for dates of activities booked.
21. Review page should have video links to YouTube displaying feedback videos.
22. App should provide similar activities recommendations,
23. Users should be able to change currency.
24. Users should be able to search words in their own language.

Interview Three

Participation of interview: Tourist

Interview Location: Trinity College.

Date of Interview: Wednesday 28th February 2018.

Time of Interview: 15:00pm – 15:45pm

Q1. What are the main activities you do when you come to Ireland?

The Tourist said that when they come to Ireland the main activities they do is visit museums, take the Dublin city centre historical tour buses, visit the spire, participate in events in phoenix park, tour guides, locate statues, Go- Karting, Aquatic centre, clubs and bars.

Q2. What difficulties do you generally face when finding activities when you come to Ireland?

The tourist said that they always had a problem with the distances of activities that they were always too far. Locating the activities was time consuming and difficult at times. She mentioned some activities needed to be booked previously before attending but they were not aware, the duration of activities were never specified except in movies.

Q3. What features can you think of that will help make finding activities easier?

The tourist said that an app that categorised activities would be helpful; the exact pricing per person should be specified not "From". The distance and duration of activities should be outlined; new fun activities and price friendly activities should be provided. The tourist mentioned that those were their major concerns.

Q4. What social media accounts do you feel should be incorporated based on your activity level on that social media?

The tourist mentioned that they were mostly active on Facebook and that was the main social media that they use to communicate with each other and for leisure purposes. The tourist said other than Facebook they mostly used Snapchat and Twitter. They specified Facebook should most definitely be incorporated.

Q5 Do you use or aware of any apps, website, tourist guides or equivalent to find activities? What flaws they have and areas you wish they could improve on?

The tourist said that they use Groupon a lot of the time, as it was cheaper than most platforms. They mentioned that they were always given tour guides and brief lets with some activities. In Ireland, they recently came across Tourism Ireland. The tourist mentioned areas that they could improve on were providing more exciting activities, information on the journeys and activities for just one person.

Q6. Preview videos and pictures of activities are a planned feature to be implemented into the app, how could we further improve the feature that would grab your attention?

The Tourist insisted that discount offers should be made, free activities should be promoted more, and ratings of the activities should be displayed. The tourist mentioned that notifications with a short video link of the activities sent to them would be "very cool".

Q7. When looking for activities e.g. site seeing and tours, what are main information you looking for to be provided with?

The tourist mentioned that they main information they would be looking to be provided with was the exact price of the activity. The tourist also said the location of the activity and the duration of the journey from his or her own location. Finally, the duration of the activity should be displayed as part of the description of the activity in minutes.

Q8. Would you join / register on a subscription service if it provided you with exclusive notifications of events or activities?

The comments the tourist made about this question were that too many notifications would annoy them and force them to delete the app. They would prefer notifications to be provided close to weekends. They would like to join on a subscription service to be updated and maybe book upcoming events like electric picnic and longitude through the app.

Q9. How would you like to receive notifications about events and activities?

The Tourist said that they would like to be notified through email and phone notifications. The tourist stated, "I am most likely to be aware of the activity with phone notifications, but I check my emails very often so I would receive it there too."

Interview Three: Tourist

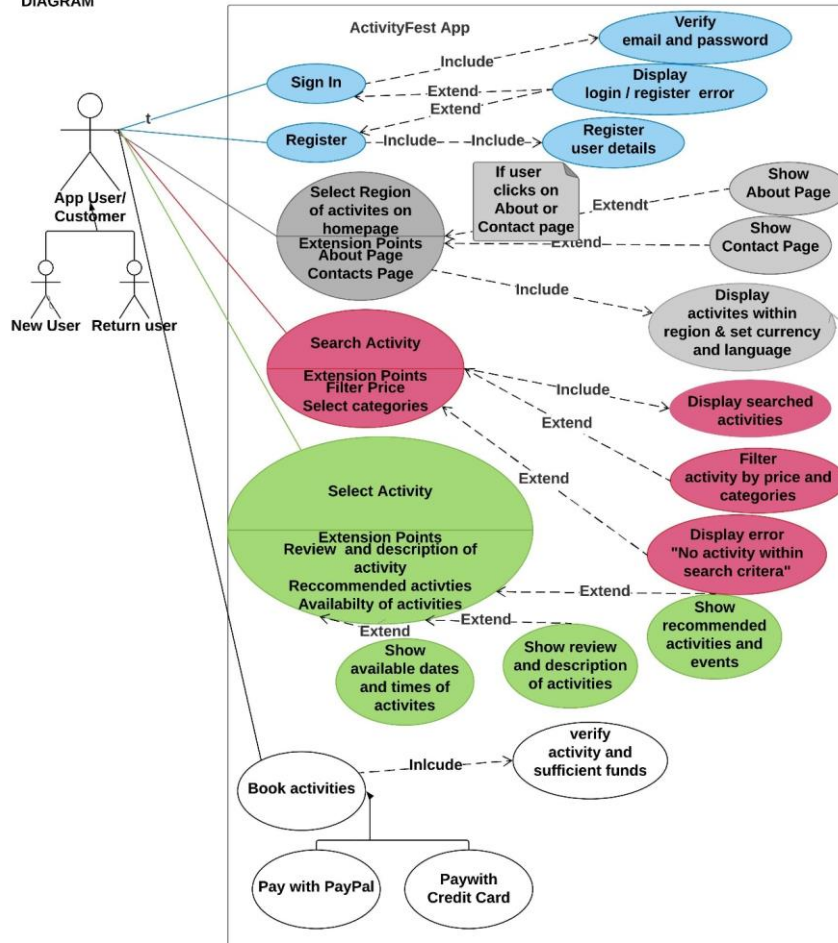
Requirements gathered.

1. App should display distance between activities and their location.
2. App should display duration of the journeys.
3. App should display duration of activities in minutes in the description.
4. App should display activities in categories eg Water Activities, Tours and Free Activities.
5. App should display exact price of activities.
6. User should be able to login via Facebook and Twitter.
7. App should provide Transport information.
8. App should provide singular activities.
9. App should provide free activities.
10. Notifications sent to users should have preview video links of activities within the notification.
11. Notifications should be sent close to weekends.
12. Notifications should be sent Via Email or through phone notifications.
13. App should display address of activity.
14. App should allow users to “subscribe” for upcoming events and incentives.
15. App should allow users to pay for external events and festivals through app eg Longitude

3.3 Interface Analysis result and report

ACTIVITY FEST USER INTERFACE ANALYSIS USE CASE DIAGRAM

| March 26, 2018



Activity Fest UML Use Case Diagram Results and Report:

The Use case diagram visually portrays the relationship that exist between the relevant stakeholder (App users / Customers) and the activity fest app. The actors are placed on the outside of the case diagram. This represents them as stakeholders and interactors of the app. Within the case diagram defines the scope of the app and its main functionalities from medium- high level of detail. The colour coded use cases represent the five main functionalities that the actor will be able to interact with and the relationship the actor has with the use cases within the app. The actor has a relationship with each of the use cases in the diagram and the actor is able to interact with each of the use case, which provides different functionalities.

The user can be a new or a returning registered user of the app. The new user will be able to register for the app and when he provides his details, the app will register his details to become a registered user. In the case, the user provides missing information needed to register his details the user will be displayed with a registered error message. A returning user will be able to sign in with credentials; the app will verify his email and password and direct the users to the Homepage. In the case the user fills in the wrong credentials the app will display an error message.

Once the users have successfully signed in/ registered, they will be displayed with a Homepage where they will have links to an About page and Contact page. They users will also be able to set the region they want to search activities in e.g. Ireland Dublin or Spain Madrid. The app will adjust currency and provide language options for users to choose from. Following on the app will display activities within the region selected.

On the page providing activities, the users will be able to search activities within the page. The users will have the option to input the name of activities they want to search and a price filter will be provided. This price filter will allow the users to search for activities within a specified price range. E.g. Min \$20 – Max \$70. The users are able to search for activities in categories, the users will be provided with activities displayed within the categories for example based on feedback gathered on the type of activities from previous techniques: Categories

Water activities {Aquatic Centre, Cool mine swimming centre, Fort Lucan}

Tours, Galleries and Sites {Dublin tour bus, The Molesworth Gallery, St Patrick Cathedral}

Upcoming events {longitude, African Day, Summer Fest, Electric Picnic}

The user will also be able set price ranges within the categories. The app will then display activities that are filtered and categorised by users. In the case users search an activity or price range that is not available the app will display an error message "No activities within search criteria".

When the user successfully searches activities within their search criteria, they will be shown a list of activities. The users will be able to select the activity they want to participate in. Within their activities, the users will be provided links to

see-to-see reviews, description and availability of activity or event. The reviews page will allow users to see previous participants review on the activities.

A clear description of the activity will be supported by videos and ratings. The availability link will display dates and times the activity is available to be booked at.

The user will be able to see recommended activities based on popular and similar activities to the activity the user has selected. The user will then be able to begin their booking process of the activity they have selected.

The user will be able to book their selected activities provided they have selected their dates and times. The app will add their activities to their cart, display an order summary and checkout. Following on the user has the option to book activities with their PayPal or Credit Card. The app will verify the activities and verify if there are sufficient funds in the users account to book the activities.

The Use Case diagram ensures the app is highly efficient and provides clear understanding of the function of the app. The users will not be able sign in without correct sign in credentials nor will the user be able register without the relevant information needed for registration.

3.4 Prototype Results and report. Prototype Version 1

Sign in Page.



Register page.



Homepage

(Select region and progress to activities page)

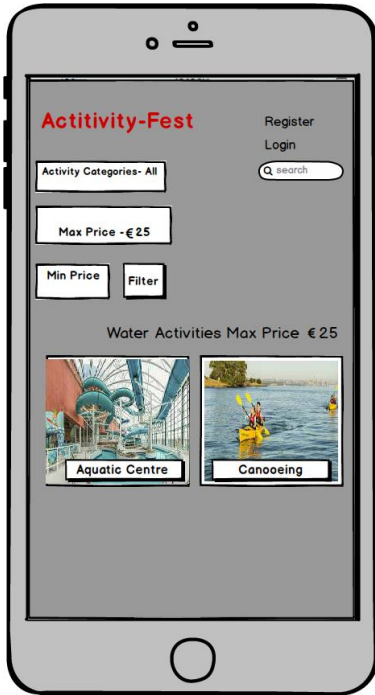


Display Activities

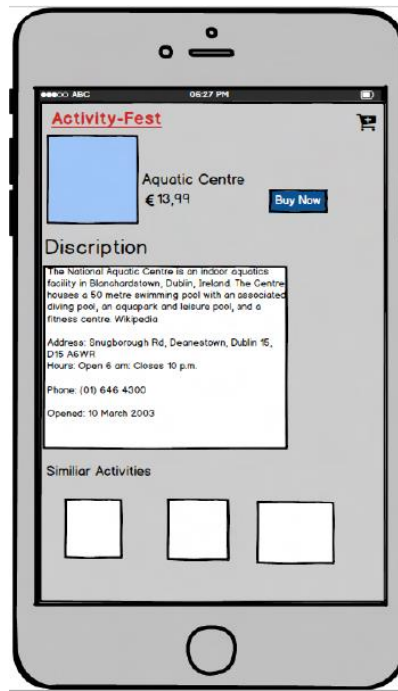
(User sets price and type of activity)



Select Activity Page



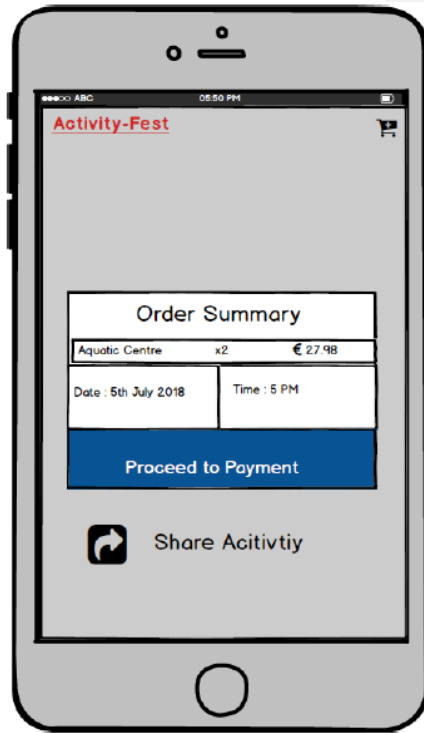
Description of Activity.



Activity Review Page



Book Activity page



Purchase Page



Prototype Version 1 Report.

This prototype version 1 was created and developed with some of the results and conclusions of the previous elicitation techniques, including brainstorming, multiple interviews, and a survey with at least 100 responses. The results were analyzed and the features and basic requirements gathered were used to create the foundation of Prototype Version 1. Prototype Version 1 will be used during the requirement workshop, where the prototype will be evaluated and assessed by the stakeholders. For the objective of the requirement workshop to be reached, modifications that need to be made to Activity-Fest prototype version 1 including designs, layouts, functions and additional requirements will be documented and implemented into Prototype version 2 matching the needs and preferences from the stakeholders. Further analysis gathered from the brainstorm, survey and interviews will be completed to generate further specified requirements and this will be implemented into Prototype Version 2.

From the three different elicitation techniques, I generated many requirements, some being the same and many different. After analysis on the requirements, it was noticed that some requirements seemed to be in high demand after many stakeholders requested them. The focus on prototype version one was to implement the main requirements on each page of the App based on the feedback given by stakeholders from the techniques. Initially the Login and Sign in pages were created to allow users to become and member of Activity-Fest and sign in if they are already a member.

It was mentioned in the Interviews, brainstorm and survey that the stakeholders wanted activities to be sorted in categorized based on the activity it is. This was implemented on the homepage where users can see all different types of activities in categories. It was several times in the survey that users would like activities located close to them. On the homepage, the users can set the region they are in to find activities just in that area.

A popular demand requested throughout the elicitation techniques was the price filter setting which allows users to search activities only in a set price range. Users are also able to search activities by simply inputting the name of the activities. There were requirements also gathered for the type of activities that will be implemented for example, in the survey 73 out of 300 responses requested that they would like free activities to. 51 out of 147 responses said they would like to see images of the activities. This was implemented on the select activities page. Throughout the survey interviews and brainstorm, a huge amount wanted description and reviews of their activities. This was implemented when a user selects activities they also are able to see the description and a link takes them to the review page. During the interviews, the tourist said they would like to be able to see availability of activities; this was also implemented on the reviews page. Booking activities through the app was also requested throughout the techniques conducted. This is implemented on the last page where the user books activity directly from the app. The Activity-Fest prototype has nine pages with features and designs based on foundations of the interviews, surveys and brainstorm

Prototype Version 2

Sign in Page.



Register Page.



Commented [MB1]:

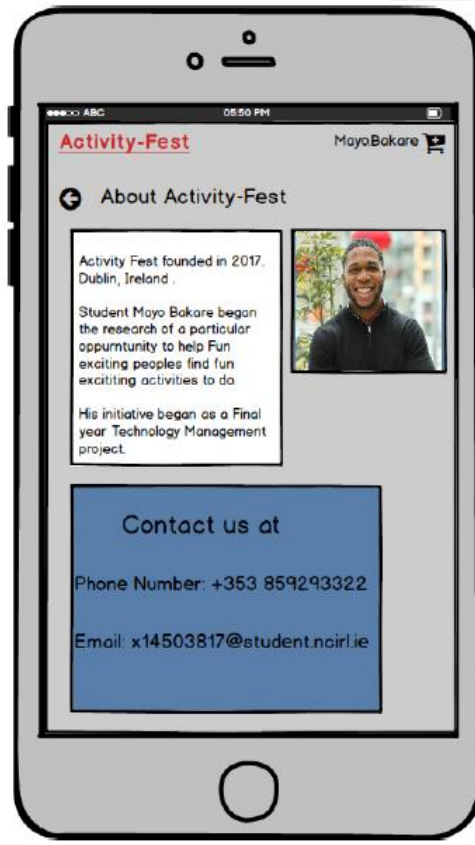
Homepage

(Select region and progress to activities page)



Activity-Fest

About Page



Mayo Bakare X14503817

Select Activities

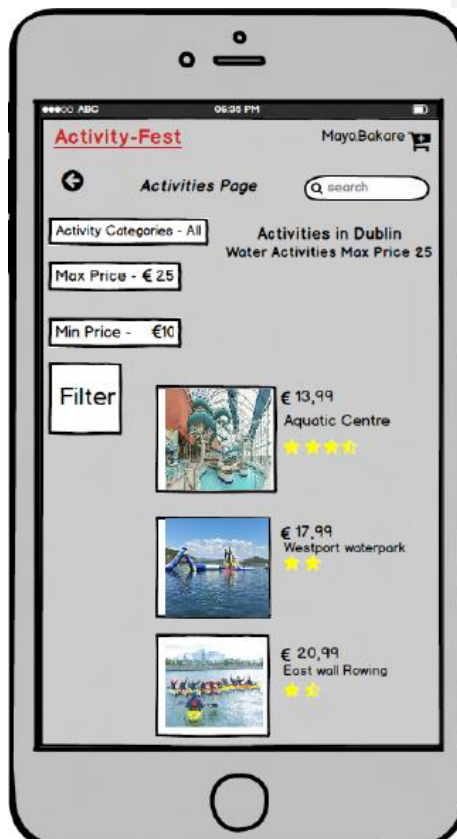
(User sets price and type of activity)



Activity-Fest

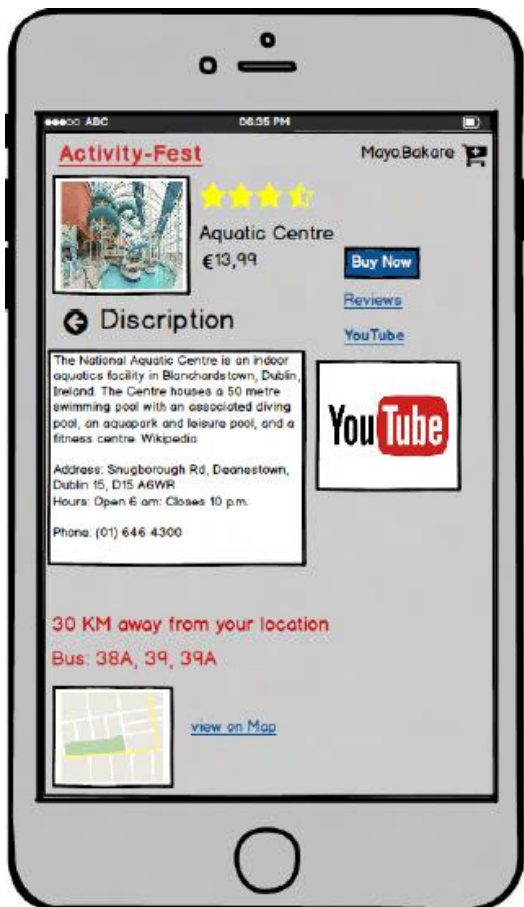
Activities Page

(User Selects Aquatic Centre)



Mayo Bakare X14503817

Activity Description Page



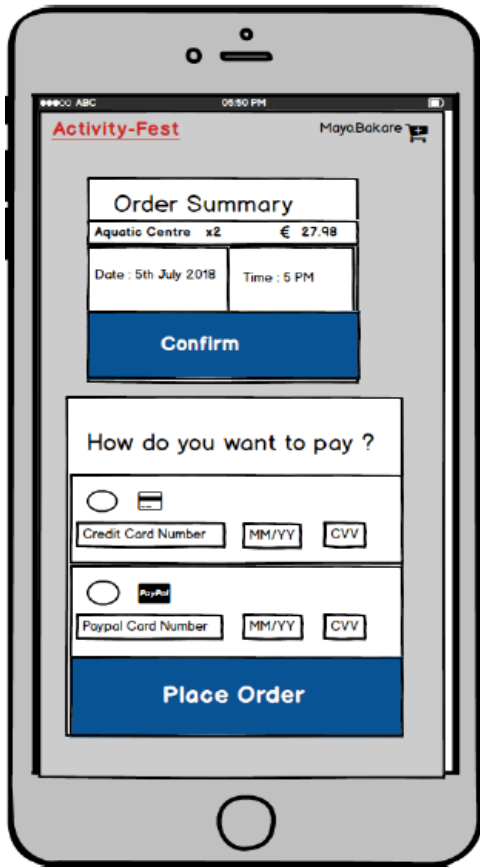
Activity-Fest

Activity Review Page



Mayo Bakare X14503817

Booking Page



Voucher Page



Prototype Version 2 Report

The second prototype was completed after the requirements workshop took place on the 30th of March. Many changes and modifications have been made to prototype version 1 with further detailed analysis and requirements gathered from the workshop.

The sign in page now has an option to sign in with Facebook and Twitter; it also has a function to allow users to reset their passwords if they forget it. On the registration, page users now need to provide more details such as 'Gender' 'Phone Number' and 'Favorite activities'.

The Homepage now consist of language and currency to allow users to set the language of the app to whatever they want and the currency to the currency of their country. An about and Contact page has been added, where users can see more information on Activity-Fest and contact details.

On the Select activities page the categorised activities have been added here, the username of the user displays at the top of the page, the set region also is displayed here on the page. A back button to return to the previous page has also been added.

On the Activities page the set price and region is also displayed as well as the activities selected. There has been ratings in five gold star illustration to show user rating towards each activity.

On the activity description page, the star ratings is also displayed here also. The distance between the user and the activity has also been implemented as well as a map for directions and recommended public transport. A video link with YouTube has been added to provide the users with a video description and a previous participant in the activity. Users are able to click on the buy now button to purchase the activity after the description. A Link has been added to take users to the review page.

On the review page the changes made here is that the weather forecast has been implemented here when the user searches for the available dates of activities, weather forecast will display if available for that day. Recommended activities are also displayed on the bottom of the page to offer similar activities to the one the user searched for.

On the booking page, the order summary and payment methods are on a single page. The user has option to pay by credit card Visa etc. or PayPal.

The last page added was the voucher page where users can scan the QR code to enter the activities. This is following on as a confirmation that the activity is booked. The users can also share the activities they just purchase on Facebook, Twitter and Snapchat. The users can also save the activity as a favourite.

3.5 Requirements workshop results and report.

The requirements workshop day was a success in terms of meeting the objectives set out. The workshop day was conducted with the following key stakeholders: The application sponsor, the business analyst, and two end users one student and one tourist. The session began with each the business analyst the coordinator of the workshop outlining time schedule, house rules, explaining what the workshop was and the purpose and finally each stakeholder's important role to the workshop.

The stakeholders evaluated the prototype version 1 of Activity-Fest but were not asked for feedback at this stage. They stakeholders then were instructed to evaluate competitor's websites, apps and platforms. After completion of evaluating both the prototype version one and competitor profiles, they were then asked for their recommendations, new features and changes for the prototype of Activity-Fest. The proposed recommendations, new features and changes will then be implemented into the prototype version 2 of Activity-Fest.

The following recommendations, new features and changes were made to the business analyst: As a whole, the stakeholders were happy with the layout and design of the prototype version 1, but many additional features and changes were mentioned for prototype version 2.

The app sponsor made recommendations on the sign in and register page. The app sponsor outlined that the sign in page needed a function to allow user to change their password in the case the users forget them. A forget password link option will need to be added to the sign in page. The users should also be able to sign in with their twitter or Facebook accounts. On the register page, the tourist and student suggested there should be more details needed for registration, specifically Phone number, gender and to list their favorite type of activities to allow the app to first recommend activates to each user's preference.

On the homepage the app sponsor was happy with the layout and structure but insisted that instead of the activities being displayed on the homepage, he would like there to be an "About and Contact us". These pages will outline the president of Activity -Fest and what the app offers. On the contact us pages will be contact information available in the case users have any issues or inquires they would like to address. The tourist and students suggested that the usernames should be displayed, and when the user sets the region or a non-English speaking country, the languages and Currency have the option to be changed also.

The activities page satisfied all participants initially but with closer evaluation, they mentioned some small details. The app sponsor said that the page titles will need to be displayed on each page, usernames should also be displayed on each page also. The region set in the homepage should also be displayed to allow the users to acknowledge the location of the activities they are being displayed with are. The tourist insisted that the activities in this section should all have ratings in 5-star gold. This is quite eye-catching to the users and will give great initial indication from what activities to choose. They also said that there should be a search text box for users to just type in the name of the activities they want in

the case that the users already know. All participants agreed with the structure of the Min-Max Price Filter and the way the Categories were displayed and insisted no changes should be made to them. The app sponsor also mentioned there should be a back button to change the region they want to search in or a drop down menu within the activities page.

A number of changes were requested for the selecting activities page. In regards to the pages when the user selects an activity the tourist said that firstly they want to see the description and relevant information, the price and specifically how to get there on a map. The tourist outlined that the distance of how far the activity is away from them is in Kilometers and also public transport that can be used to get there e.g. Bus numbers. Also the location of the activity should be displayed on a map for directions. The username, the rating should also be displayed in the description page and a video description should be included. The tourist and student outlined that they would like to see videos of participants on the activities, the video is critical when choosing activities to purchase.

All participants agreed that the recommendations, review and availability should be displayed on a separate page. The App sponsor mentioned that review page should have few reviews displayed and the total number of reviews given. The star rating should always be displayed as well as the price and add to basket button. The students and tourist agreed that there should be a calendar highlighting the available days and weather news for the date selected if available.

All participants suggested that the recommended activities and events should be displayed at the bottom of the app page in just images, but they should be similar to the activity already selected. When the user clicks on the buy now button the page should navigate to the bookings page.

The student and tourist indicated they both hate long and inconvenient payment processes. They insisted that the payment process should be on a single page but they are happy with the display and layout of the booking pages. The Tourist outlined that in completion of payments that they should receive confirmation of payments on the phone and they would like to receive a voucher on the phone that they could screenshot and store. The users will be able enter the activities with the voucher on the phone rather than the activities sent to email addresses and having to print them out.

The app sponsor also said that there should be a share button which allows users to share the activities they have just bought on Snapchat, Facebook, Twitter and Instagram.

The students mentioned that in completion of the booking, there should be a love heart favorite button to save activity as a favorite.

In all, the stakeholders were fine with all the suggested changes requested and clear idea of how prototype version 2 will be displayed.

Validation and prioritisation of new requirements gathered from Workshop session.

The following new requirements were generated from the workshop session. At the break of the session during the food and drinks time, the new requirements were listed. When the workshop session commenced the stakeholders viewed and validated the requirements re-confirming they were correct. They also prioritized the new requirements based on the level of importance the feature was to them. The requirements were ranked in a High, Medium Low category to determine their importance to help prioritize the requirements implementation for the prototype version 2.

New requirements validated and prioritized by stakeholders.

1. App should have a back button to direct users to previous pages. **(High)**
2. The users should be able to save favorite activities with a Love heart symbol. **(MEDIUM)**
3. App should display page titles on each page. **(HIGH)**
4. Users should receive voucher for activities booked. **(HIGH)**
5. Voucher should be able to be scanned through the phone. **(HIGH)**
6. App should display informative content on about page. **(HIGH)**
7. App should display contact information on contact page. **(HIGH)**
8. App should display weather condition on calendar dates if available. **(MEDIUM)**
9. Users should be able share activities via Snapchat, Facebook Twitter and YouTube. **(MEDIUM)**
10. Users should receive confirmation of payment on the app. **(HIGH)**

3.7 Document analysis results and report.

Document: The General Protection Regulation

Personal Data requirements

(Article 5 Principle relating to processing of personal data)

(B) The protection of processing user personal data is very strict and under the General Data Protection Regulations personal data should only be used for legitimate purposes and no further processing of data should be carried out unless clearly communicated with provider of the Data.

(D) Personal data should be accurate for purpose of creating personal account for the users. Inaccurate data should be erased or rectified.

In Activity-Fest user must verify details through their email account. Users will be sent a verification email, where they must verify to ensure their details are accurate.

In Activity-Fest user data such as (Name, Age, Email, Gender, Phone Number and activity preference) shall not be utilized for any other means other than to create user profiles and to display relevant activities for users.

(Article 13 Information to be provided where personal data are collected from the data subject)

- (A) The identity and contact details of the controller and their representatives shall be provided to the data subjects/Users.

Requirement1: User details shall be protected with SANS standard encryption technology information security programs.

Requirement2: User information shall only be accessible by Activity-Fest admin.

Requirement3: User must be able tick "Terms and conditions" granting permission to use data for user account creation and use data to provide better user experience.

Requirement 4: User must be able to verify their details through email account.

Requirements 5: About page shall display contact details and identity of admin.

Document: Apple Inc. Support

Recommendation feature: Apple recommend Music based on three factors for users.

- The music that you listen to from the Apple Music catalogue.
- What you tell them you love or dislike.
- The genre and artist choices that you made when you first joined Apple Music.

Apple use this information given to them to provide better suggestions of the music they will provide to you to listen to.

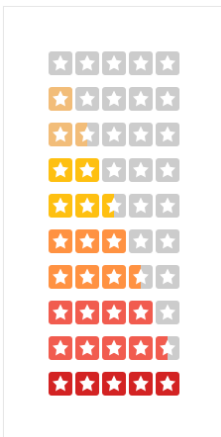
In Activity-Fest, the same concept will be used in order to provide users with better suggestions of the type of activity they like to do. When the user signs up, they will be asked to provide their preference in the "Favourite activities list".

The information here is processed and used to provide users with better suggestions for activities.

Requirement 6: User must be able to select their favourite activities when registering on the app.

Document – Yelp developer display requirements.

Rating Feature: Yelp use branded stars sprite when representing a rating for their offers. These stars rating are generated from the reviews provided by users.



In Activity-Fest, star rating will used in the same manner. The ratings will be generated in five Gold stars located beside the activity.

Requirement 7: Activities ratings will be represented in five gold stars located next to the activity very clear and visible for customer to see.

Logo Feature: In Yelp the logo is displayed on all pages, this logo is used to allow users to click onto the logo in order to be redirected back to the home page.

In Activity-Fest the logo will be colored red and displayed on every page, this logo will bring users back to the home page whenever and wherever it is clicked on.

Requirement 8: The Logo should be direct users to the home page whenever and wherever it is clicked on, the logo should clear and visible for users to see.

4. Total Requirements Gathered Analysis (High-Level)

1. App should display activities in local areas to the user. **(Brainstorm, Survey, Interview 2).**
2. App should display user with distances of activities in Kilometers. **(Brainstorm).**
3. App should provide free activities. **(Brainstorm, Survey, Interview 3).**
4. App should provide cultural events, tours and historical based type of activities. **(Brainstorm).**
5. App should provide description of what is included in the activity. **(Brainstorm & Interview 2).**
6. Apps should provide information of equipment necessary to participate in the activity. **(Brainstorm).**
7. App should display duration of activities in minutes in the description. **(Brainstorm & Interview 3).**
8. App should provide similar activities recommendations. **(Brainstorm, Survey, Interview 2).**
9. App should be able to track user preference in activities. **(Brainstorm, Survey & Brainstorm).**
10. Activity voucher should be able to scan through all types of phones. **(Requirements workshop & Brainstorm).**
11. App should provide directions to activities. **(Brainstorm).**
12. App should provide information on public transport. **(Brainstorm, Survey, Interview 3).**
13. App should provide approximate taxi fares from location to activity. **(Brainstorm).**
14. App should provide language options. **(Brainstorm).**
15. App should be simplistic and user friendly. **(Brainstorm & Survey).**
16. App should provide availability checker for times of activity **(Brainstorm & Interview 2).**
17. App should sort activities in categories based on type of activity it is. **(Brainstorm, Interview 2 & Interview 3).**
18. App should allow users to filter activity by price. **(Brainstorm, Survey & Interview 2).**
19. App should provide notifications of upcoming events and activities. **(Brainstorm & Survey).**
20. App should send reminder notifications on time and date of activities booked. **(Brainstorm & Survey).**
21. App should provide reviews of activities. **(Brainstorm, Survey, Interview 2).**
22. App should operate on IOS and Android devices. **(Survey).**
23. Users should be able to login and register with Facebook and Twitter. **(Interview 1, Survey, Interview 2 & Interview 3).**
24. Users should be able share activities via Snapchat, Facebook Twitter and YouTube. **(Requirements workshop).**
25. App should provide activities in all European countries. **(Survey).**
26. App should be able to send notifications via Email, texts, notification pop ups **(Interview 1, Interview3 & Survey).**
27. App should display pictures, videos and audio of the activities on the app. **(Survey).**
28. App should have discounted activities. **(Survey).**
29. App should display location and address of activities in the description. **(Interview 2 & Survey).**
30. App should compare prices of their activities to other organizations. **(Survey)**
31. The users should be able to save favorite activities with a Love heart symbol. **(Requirements Workshop & Survey).**

32. Reviews should be located in gold stars of five under picture of activity. **(Interview 1 & Interview 2).**
33. Homepage1 should have logo in middle of page while page is loading when app is first opened. **(Interview 2).**
34. Users can input exact amount in minimum and maximum price filter. **(Interview 1 & Interview 2 & Interview 1)**
35. Users can search activities by name on search bar. **(Interview 2)**
36. User must input name, contact number, interest, gender and email when registering. **(Interview 1 and Interview 2.**
37. Users should be able to pay via PayPal and credit Card **(Interview 1 and Interview 2).**
38. App should display weather condition on calendar dates if available. **(Interview 2 & Requirements workshop).**
39. App should incorporate a YouTube link for video previews. **(Interview 1 and Interview 2)**
40. Users should be able to change currency. **(Interview 2)**
41. App should display distance between their location and the location of selected activities. **(Interview 1 & Interview 3).**
42. App should display duration of the journeys. **(Interview 3).**
43. App should display exact price of activities. **(Interview 3).**
44. Notifications sent to users should have preview video links of activities within the notification. **(Interview 3).**
45. Notifications should be sent close to weekends. **(Interview 3).**
46. App should allow users to “subscribe” for upcoming events and incentives. **(Interview 1 and Interview 3).**
47. App should allow users to pay for external events and festivals through app e.g. Longitude **(Interview 3).**
48. App should be built with Python programming language. **(Interview 1).**
49. Drop down menu of price amounts going up and down in 10 euros. **(Interview 1).**
50. Pop up box displaying “No activities available please search again”. (If no activities avail of within price range). **(Interview 1).**
51. App should have ‘submit’ button for entering activity search criteria’s. **(Interview 1).**
52. App should Incorporate Google map Java script API. **(Interview 1).**
53. App should Incorporate Geolocation API **(Interview 1).**
54. Users should be able to input current location in text manually. **(Interview 1).**
55. App should be able to use the “user’s location”. **(Interview 1).**
56. Admin should be able to upload pictures of activities with admin access. **(Interview 1).**
57. App should send notifications on a weekly basis. **(Interview 1).**
58. App should Incorporate Visa verification. **(Interview 1).**
59. Users will be able to add activities to their basket. **(Interview 1).**
60. Ten Minute timer counts down from when user clicks “Buy Now”. **(Interview 1).**
61. User should be able click on “add more” to add more activities in basket. **(Interview 1).**
62. See availability link should be beside “Buy Now” to basket button to check availability of activity. **(Interview 1).**
63. Password should be displayed in * **(Interview 1).**

64. Passwords must have at least one number, one capital letter and eight characters. **(Interview 1).**
65. App should send verification code to email when registering for activation **(Interview 1).**
66. Review link should direct users to the review page **(Interview 1).**
67. Review page will display review information. **(Interview 1).**
68. Review box should have review link to add reviews. **(Interview 1).**
69. App should Incorporate Payment cards industry data security standards. **(Interview 1).**
70. App should incorporate cookies. **(Interview 1)**
71. APP should display pop up of accepting use of cookies. **(Interview 1)**
72. App should have a back button to direct users to previous pages **(Requirements workshop).**
73. App should display page titles on each page. **(Requirements workshop).**
74. Users should receive voucher for activities booked. **(Requirements workshop).**
75. App should display informative content on the about page. **(Requirements workshop).**
76. App should display contact information on contact page. **(Requirements workshop).**
77. Users should receive confirmation of payment on the app. **(Requirements workshop).**
78. User details shall be protected with SANS standard encryption technology information security programs. **(Document analysis).**
79. User information shall only be accessible by Activity-Fest admin. **(Document analysis).**
80. User must be able tick "Terms and conditions" granting permission to use data for user account creation and use data to provide better user experience. **(Document analysis).**
81. User must be able to verify their details through email account. **(Document analysis).**
82. About page shall display contact details and identity of admin. **(Document analysis).**
83. User must be able to select their favorite activities when registering on the app. **(Document analysis).**
84. Activities ratings will be represented in five gold stars located next to the activity very clear and visible for customer to see. **(Document analysis).**
85. The Logo should be direct users to the home page whenever and wherever it is clicked on, the logo should clear and visible for users to see. **(Document analysis).**
86. Users should have options to save password. **(Interview 2).**

Administrator requirements:

1. Admin should be able to login
2. Admin should be able to update new activities.
3. Admin should be able to delete reviews and its content.
4. Admin should be able to delete user accounts.

4.1 MoSCoW Solution Prioritization Chart

Project Title: Activity-Fest
Version: 1.0

Must Have

Should Have

Could Have

Wont Have

- M**
- Requirement 1
 - Requirement 3
 - Requirement 4
 - Requirement 5
 - Requirement 8
 - Requirement 10
 - Requirement 15
 - Requirement 17
 - Requirement 18
 - Requirement 21
 - Requirement 22
 - Requirement 23
 - Requirement 27
 - Requirement 29
 - Requirement 34
 - Requirement 35
 - Requirement 36
 - Requirement 37
 - Requirement 38
 - Requirement 44
 - Requirement 52
 - Requirement 53
 - Requirement 54
 - Requirement 56
 - Requirement 58

- S**
- Requirement 2
 - Requirement 6
 - Requirement 7
 - Requirement 9
 - Requirement 11
 - Requirement 12
 - Requirement 19
 - Requirement 26
 - Requirement 31
 - Requirement 32
 - Requirement 33
 - Requirement 40
 - Requirement 42
 - Requirement 50
 - Requirement 55
 - Requirement 57
 - Requirement 61
 - Requirement 62
 - Requirement 84
 - Requirement 85

- C**
- Requirement 14
 - Requirement 20
 - Requirement 24
 - Requirement 28
 - Requirement 39
 - Requirement 41
 - Requirement 43
 - Requirement 47
 - Requirement 48
 - Requirement 65
 - Requirement 66
 - Requirement 67
 - Requirement 68

- W**
- Requirement 13
 - Requirement 25
 - Requirement 30
 - Requirement 45
 - Requirement 46
 - Requirement 51
 - Requirement 16
 - Requirement 49
 - Requirement 60

Requirement 59
Requirement 63
Requirement 64
Requirement 69
Requirement 70
Requirement 71
Requirement 72
Requirement 73
Requirement 74
Requirement 75
Requirement 76
Requirement 77
Requirement 78
Requirement 79
Requirement 80
Requirement 81
Requirement 82
Requirement 83
Requirement 86

5. Activity-Fest IEEE Requirement Specification

5.1 Introduction

5.1.1 Purpose

The IEEE requirement specification is being developed for Activity-Fest new application. This report will clearly identify key functional and non-functional requirements that shall be related with the Activity-Fest Application. This requirement specification must be reviewed, evaluated and approved by the App sponsor before being finally passed to the developer to begin the development process. Prior to Activity-Fest being developed by the Software Engineer, all changes suggested by project stakeholders must be implemented and approved.

5.1.2 Scope

Activity-Fest application is being developed for the app sponsor to provide and other project stakeholders. The app sponsor is using the application in addition to his tourist business. Tourist of the business have often inquired for recommendations on the various amount of activities that were being offered to do in Ireland.

The purpose of the app is to provide not only tourists but also all people looking for activities to do in Ireland. The app provides fun, adventurous and a various amount of different activities for users to explore and enjoy.

Activity-Fest aims to make the whole process of the finding activities to do a whole lot easier. Activity Fest provides plenty of features that enables this easy process. Users are able to find activities easier, as activities are sorted into categories based on the type of activities there are.

User can sort activities through price budgets, which enables them, find activities they can afford. With the user's favorite activities collected at the registration stage, users are suggested with activities that they would have some interest in.

The users have the capabilities to them view ratings and description of their chosen activities and find directions to the location of the activities. With some accurate description and review of the activities, users are sure to get the experience they have paid money for.

The goal is to ensure users such as tourist enjoy their time with fun and adventure and always look forward to returning to Ireland.

5.1.3 Definitions

User: Any stakeholder who interacts directly with the Activity-Fest Application.

Admin: The stakeholder whom has exclusive access to the application and make changes to activities and registered members of the app.

Stakeholder: A person who is associated in the app through either interaction management or development.

5.1.4 References

IEEE Software Engineering Standards Committee, "IEEE Std 830-1998, IEEE Recommended Practice for Software Requirements Specifications", April 30, 2018.

5.2 Functional Requirements.

5.2.1 User Class one – (User)

5.2.1.1 Sign in page

ID Code:	Functional Requirement 1 (Located on all pages).
Title:	Logo Link
Description:	The Logo link will be displayed on the top left of every page. This logo will bring users back to the Homepage when clicked on by user. The logo is "Activity-Fest" in red.
Location:	Top left of every page.
Justification:	Gathered from document analysis. Allows users to navigate easily.
Priority:	Should have

ID Code:	Functional Requirement 2
Title:	Signing in
Description:	Users should be able to input their email address and passwords to sign in
Location:	Page: Sign in
Justification:	Gathered from Interview 2 and Interview 3. Allow registered users to sign in to the accounts.
Priority:	Must Have

ID Code:	Functional Requirement 3
Title:	Signing in with Facebook and Twitter
Description:	Users should be able sign in with the Facebook or Twitter profile accounts.
Location:	Page: Sign in
Justification:	Gathered from Interview 2 and Interview 3. Allow registered users to sign in to the accounts.
Priority:	Must Have

ID Code:	Functional Requirement 4
Title:	Reset Passwords
Description:	Users should be able to reset passwords when they click on the "forgot Password Link".
Location:	Page: Sign in
Justification:	Gathered from Interview 2 and Interview 3. Allow users to access their account with new passwords
Priority:	Must Have

ID Code:	Functional Requirement 5
Title:	Register link
Description:	Users will be directed to the register page when they click on the register with us link.
Location:	Page: Sign in
Justification:	Allow new users to register to Activity-Fest.
Priority:	Must Have

ID Code:	Functional Requirement 6
Title:	Page Titles
Description:	Page titles should be displayed on top off pages of the app
Location:	Page: all
Justification:	Gathered from Requirements workshop. Allow users to identify what pages they are on.
Priority:	Must Have.

5.2.1.2 Register page

ID Code:	Functional Requirement 7
Title:	Register user details
Description:	User must input their first name, last name, email, passwords, phone number, gender and favorite activities.
Location:	Page: Register with us
Justification:	Gathered from Interview 1 and Interview 2. Allow users to register to Activity-Fest.
Priority:	Must Have

ID Code:	Functional Requirement 8
Title:	Join Now button
Description:	The app should register user details into database when user clicks on the Join Now Button and navigate users to Homepage.
Location:	Page: Register with us
Justification:	Allows users to create accounts
Priority:	Must Have

5.2.1.3 Homepage

ID Code:	Functional Requirement 9
Title:	Set region dropdown.
Description:	Users will be able to select the region they want activities to be located in the drop down.
Location:	Page: Homepage
Justification:	Gathered from. Allows users to choose region to find activities in a chosen region.
Priority:	Should Have

ID Code:	Functional Requirement 10
Title:	Set Language dropdown.
Description:	Users will be able to set the language they want the app to be displayed in
Location:	Page: Homepage
Justification:	Gathered from Brainstorm. Allows users to choose their first language to understand all words in app.
Priority:	Could Have

ID Code:	Functional Requirement 11
Title:	Set Currency dropdown.
Description:	Users will be able to select the currency to the one they use
Location:	Page: Homepage
Justification:	Gathered from Interview 2. Allows users to choose currency to book activities in the currency they are using. Users will not have to exchange their money externally and know the exact price of activities in their own currency.
Priority:	Could Have

ID Code:	Functional Requirement 12
Title:	Display Usernames
Description:	User should be able to see their user names located in the top right corner of the pages
Location:	Page: Activities review, Activity description, Homepage, About, select activities, activities, booking and voucher.
Justification:	Gathered from Interview 2. Allows users to see their user accounts active
Priority:	Must Have.

ID Code:	Functional Requirement 13
Title:	Save passwords
Description:	Users should be able to save passwords to automatically sign in on the app.
Location:	Page: Homepage
Justification:	Gathered from Interview 2. Allow users to sign in automatically and with ease.
Priority:	Should Have

ID Code:	Functional Requirement 14
Title:	See Activities Button
Description:	User will be directed to the activities page when they click on "See Activities" button.
Location:	Page: Homepage
Justification:	Gathered from Requirement Workshop. Allow user to navigate to activities page
Priority:	Must Have

5.2.1.4 About Page

ID Code:	Functional Requirement 15
Title:	Back Button
Description:	The Back button will direct user to the previous page they were on when clicked by the user. This button will be labelled as an arrow pointing left.
Location:	Pages: About, select activities, activities, description and review.
Justification:	Gathered from requirements workshop. Allows users to navigate easily.
Priority:	Must Have

ID Code:	Functional Requirement 16
Title:	Contact Us link
Description:	Users will be directed to the "Contact us" page when they click on the "Contact us" image.
Location:	Page: About
Justification:	Gathered from Requirement Workshop. Allows users to find out contact information.
Priority:	Must Have

ID Code:	Functional Requirement 17
Title:	About
Description:	Users will be directed to the "About us" page when they click on the "About us" image.
Location:	Page: About
Justification:	Gathered from Requirement Workshop. Allows users to find out information Activity-Fest.
Priority:	Must Have

ID Code:	Functional Requirement 18
Title:	About Information
Description:	App displays about information and content.
Location:	Page: About
Justification:	Gathered from Requirement Workshop. Allows users to find out information about Activity-Fest.
Priority:	Must Have

ID Code:	Functional Requirement 19
Title:	Contact information
Description:	App displays contact information
Location:	Page: About
Justification:	Gathered from Requirement Workshop. Allows users to find out information on contacts
Priority:	Must Have

5.2.1.5 Select Activities Page

ID Code:	Functional Requirement 20
Title:	Searching Activities
Description:	Users enter the name of the activity they want on the search bar and the activity closest to the text in the search bar will be displayed.
Location:	Pages: select activities & activities.
Justification:	Gathered from Interview 2. Allows users to find activities more efficiently by name.
Priority:	Must Have

ID Code:	Functional Requirement 21
Title:	Display activities within set region
Description:	Users will be displayed activities within the region they have set in the Homepage.
Location:	Pages : Select Activities
Justification:	Gathered from Interview 2, Brainstorm and Survey. Allows user to find activities in areas that they are located in.
Priority:	Must Have.

ID Code:	Functional Requirement 22
Title:	Display Picture of activities
Description:	Users will see a picture of the activity providing clear image of what the activity is.
Location:	Page: Select activity, Activity, Activity description and Activity review.
Justification:	Gathered from Survey. Allow user to see clear images of the activities.
Priority:	Must Have

5.2.2.6 Activities Page

ID Code:	Functional Requirement 23
Title:	Display Exact price of Activity
Description:	Users will be displayed the exact price of their selected activity.
Location:	Pages: Activities, Activity description, Activity review & Booking.
Justification:	Gathered from Interview 3. Allows users to prepare ahead for their activities allowing them to dress according to the weather conditions.
Priority:	Must Have

ID Code:	Functional Requirement 24
Title:	Pop up error message
Description:	A pop up error message displaying "No activities available please search again". This is if users searched activity or pricing criteria is not available at present.
Location:	Pages : Select Activities
Justification:	Gathered from Interview 1. Notifies users that the requested activity is not available.
Priority:	Must Have

ID Code:	Functional Requirement 25
Title:	Filter activities by price.
Description:	Activities on the app should be filtered by the price based on the inputs of the users pricing criteria's. The order should go from top - bottom from lowest to highest priced activities.
Location:	Pages : Activities
Justification:	Gathered from Interview 2, Brainstorm and Survey. To find activities within their price budgets.
Priority:	Must have.

ID Code:	Functional Requirement 26
Title:	Enter price in minimum and maximum price filter.
Description:	Users should be able to put their exact figure in the minimum and maximum price filter, the app will display activities within that amount.
Location:	Pages : Activities
Justification:	Gathered from Interview 2, Brainstorm and Survey. To find activities within their price budgets.
Priority:	Must have.

ID Code:	Functional Requirement 27
Title:	Star review ratings
Description:	Review ratings are represented by 5 gold star stars.
Location:	Pages: Activities, Activities review & Activities description. Beside the picture of each activity.
Justification:	Gathered from Interview 1 and Interview 2. To see how each activities are rated by other people's experiences.
Priority:	Should have.

5.2.1.7 Activities Description Page

ID Code:	Functional Requirement 28
Title:	Add Activity to basket
Description:	User add their selected activity to the basket when they click on the "buy now" button on the activity selected.
Location:	Pages : Activity description & Activities review
Justification:	Gathered from Interview 1. Allows users to purchase their selected activity.
Priority:	Must Have

ID Code:	Functional Requirement 29
Title:	Display distance of activities of selected activities in Kilometers.
Description:	Users will be displayed the distance of their selected activities in Kilometers.
Location:	Pages : Activity description.
Justification:	Gathered from Interview 2, Interview 3 and Brainstorm Allows users to acknowledge distances of activities in Kilometers.
Priority:	Must Have.

ID Code:	Functional Requirement 30
Title:	Display available public transport information for activities
Description:	The app displays information on public transport and routes to the selected activity. Information such as buses and trains to take.
Location:	Pages: Activity description.
Justification:	Gathered from Interview 3, Brainstorm and Survey. Allows users to find and plan their route to the activity.
Priority:	Should Have.

ID Code:	Functional Requirement 31
Title:	Categorized activities
Description:	Activities on the app should be in categories specifically (Free activities, Water Activities, Events, Adventure Activities, Tours and historical sites).
Location:	Pages : Select Activities
Justification:	Gathered from Interview 2, Interview 3 Brainstorm and Survey. Allows users to find and plan their route to the activity.
Priority:	Must have.

ID Code:	Functional Requirement 32
Title:	Display activity description
Description:	Clear description of what is included in the activities and necessary equipment needed should be displayed in the description box.
Location:	Pages : Activities Description
Justification:	Gathered from Interview 2 and Brainstorm. Allows users to prepare for the activities they selected.
Priority:	Must have.

ID Code:	Functional Requirement 33
Title:	Address and location of activity.
Description:	The address and location of the activities will be clearly included in the description box of the activities.
Location:	Pages : Activities Description
Justification:	Gathered from Interview 2, Brainstorm and Survey. Allow users to plan their route and schedule to attend the activity selected.
Priority:	Must have.

ID Code:	Functional Requirement 34
Title:	Activity Duration
Description:	The duration of the activity should be displayed in the description box in the minutes.
Location:	Pages : Activities Description
Justification:	Gathered from Interview 3 and Brainstorm. Allows users to acknowledge the length of time their activity will last.
Priority:	Should have.

ID Code:	Functional Requirement 35
Title:	Review link
Description:	Review link should direct the users to the review page when the link is clicked on.
Location:	Pages: Activities description
Justification:	Gathered from Interview 1. Allow users to navigate to the review page from the description to see reviews.
Priority:	Must have.

ID Code:	Functional Requirement 36
Title:	YouTube preview link
Description:	Users will be able to click on the YouTube link to see a video preview of the activity they select. The video will play directly on the app.
Location:	Page: Activity description.
Justification:	Gathered from Survey, interview 1 and interview 2. Allow user to see video previews of the activities.
Priority:	Must Have

5.2.1.8 Activities Review Page

ID Code:	Functional Requirement 37
Title:	See Availability
Description:	Users will be displayed a calendar of availability dates for the activity they have chosen.
Location:	Pages : Activities review
Justification:	Gathered from Interview 1. Allows users to purchase their selected activity on their preferred date.
Priority:	Should Have

ID Code:	Functional Requirement 38
Title:	Display weather forecast
Description:	Users will be displayed a weather forecast (when available) for the selected dates of the activity.
Location:	Pages : Activities review
Justification:	Gathered from Requirements workshop. Allows users to prepare ahead for their activities allowing them to dress according to the weather conditions.
Priority:	Must Have

ID Code:	Functional Requirement 39
Title:	Display reviews
Description:	Reviews of the activities should be displayed, including the amount of reviews and the person who wrote it in the review box.
Location:	Pages : Activities review
Justification:	Gathered from and Brainstorm, Survey, Interview 2. Allows users to find other peoples experience on the activity they have selected.
Priority:	Should have.

ID Code:	Functional Requirement 40
Title:	Add review link
Description:	Users can write their own reviews when they click on the "Review" link .
Location:	Pages : Activities review
Justification:	Gathered from Interview 1. Allows users add their own review experience on the activities.
Priority:	Could have.

ID Code:	Functional Requirement 41
Title:	Suggest users favorite activities
Description:	App should display activity suggestions based on the user's favorite activities.
Location:	Pages: Activities review
Justification:	Gathered from Brainstorm & Survey. Allow users to find activities similar to the activities they like.
Priority:	Should have.

ID Code:	Functional Requirement 42
Title:	Suggest Similar activities.
Description:	App should display similar activities to the one the users have selected.
Location:	Pages: Activities review
Justification:	Gathered from Brainstorm & Survey. Allow users to find activities similar to the activities they have selected
Priority:	Should have.

5.2.1.9 Activities Booking Page

ID Code:	Functional Requirement 43
Title:	Pay via PayPal and Credit Card.
Description:	User will be able to book and pay for activities with PayPal or Credit Cards
Location:	Page: Booking
Justification:	Gathered from interview 1 and interview 2. Allow users to book activities securely.
Priority:	Must Have

ID Code:	Functional Requirement 44
Title:	Credit Cards verified by visa.
Description:	User must input their verified by visa passwords
Location:	Page: Booking
Justification:	Gathered from interview 1 and interview 2. Allow users to book activities securely.
Priority:	Must Have

ID Code:	Functional Requirement 45
Title:	Credit Cards verified by visa.
Description:	User must input their verified by visa passwords
Location:	Page: Booking
Justification:	Gathered from interview 1 and interview 2. Allow users to book activities securely.
Priority:	Must Have

ID Code:	Functional Requirement 46
Title:	Credit Cards verified by visa.
Description:	User must input their verified by visa passwords
Location:	Page: Booking
Justification:	Gathered from interview 1 and interview 2. Allow users to book activities securely.
Priority:	Must Have

5.2.1.10 Activities Voucher Page

ID Code:	Functional Requirement 47
Title:	Users must receive confirmation of booking
Description:	Users receive confirmation on the app with "Congrats" text when they have booked and payed for their activity.
Location:	Page: Voucher
Justification:	Gathered from Requirements workshop. Allow users to confirm they have successfully booked their activity
Priority:	Must Have

ID Code:	Functional Requirement 48
Title:	Users must receive Vouchers
Description:	Users receive Voucher used to scan and enter activity on the app when they have paid for their activity.
Location:	Page: Voucher
Justification:	Gathered from Requirements workshop. Allow users have entry vouchers for activities.
Priority:	Must Have

ID Code:	Functional Requirement 49
Title:	Share activities
Description:	Users should be able to share activities via Facebook, Twitter and Snapchat when they click on the logos
Location:	Page: Voucher
Justification:	Gathered from Requirements workshop. Allow users have entry vouchers for activities.
Priority:	Could Have

ID Code:	Functional Requirement 50
Title:	Save activities
Description:	Users should be able to save activities as favorites when they click on the love heart.
Location:	Page: Voucher
Justification:	Gathered from Requirements workshop and survey. Allow users to save their favorite activities
Priority:	Should Have

5.2.2 User Class Two – (Administrator)

5.2.2.1 Sign in page

ID Code:	Functional Requirement 51
Title:	Admin Login
Description:	Strictly, Admin should be able to login to Access site when they enter their details. Only admin has access to this site with their sign details.
Location:	Page: sign in
Justification:	Administrators must log in to have overall control of the app having access that users cannot have.
Priority:	Must Have.

5.2.2.2 Activities Page

ID Code:	Functional Requirement 52
Title:	Admin update activities
Description:	Admin should be to manually update new activities that will be visible to users in the app.
Location:	Page: Activities.
Justification:	Administrators manually update the new activities and remove old activities.
Priority:	Must Have.

5.2.2.3 Activities Description Page

ID Code:	Functional Requirement 53
Title:	Admin edit reviews and descriptions
Description:	Admin should be to manually delete or remove reviews and edit description of activities.
Location:	Page: Activities review, Activity description.
Justification:	Administrators manually edit the activities descriptions and reviews.
Priority:	Must Have.

5.2.2.4 Register Page

ID Code:	Functional Requirement 54
Title:	Admin control user accounts
Description:	Admin should be to manually delete or remove and edit user accounts
Location:	Page: Register
Justification:	Administrators manually edit user accounts for changes.
Priority:	Must Have.

5.2.2.5 Activities Review Page

ID Code:	Functional Requirement 55
Title:	Admin upload pictures and videos for activities.
Description:	Admin should be to manually upload new pictures and video previews for activities
Location:	Page: Activities review, Activity description, select activities, Activities
Justification:	Administrators manually Upload and choose relevant pictures and preview videos for activities.
Priority:	Must Have.

5.2.3 User Class 3 (App System)

ID Code:	Functional Requirement 56
Title:	Send notifications through email, texts and pop ups
Description:	App should send any notifications to registered users via email, texts messages and app pop ups.
Location:	User phones and Emails
Justification:	Gathered from Interview 1, Interview 3 and Surveys. Allows users to be kept up to date with updates and new activities information. selected
Priority:	Should have.

ID Code:	Functional Requirement 57
Title:	Notifications should be sent for new upcoming events and activities.
Description:	Notifications should provide information on new upcoming events e.g. Longitude and new activities implemented into the app.
Location:	User phones and Emails
Justification:	Gathered from Brainstorm & Survey. Allow users to be updated with new events and activities.
Priority:	Should have.

ID Code:	Functional Requirement 58
Title:	Notifications reminders
Description:	Notifications should be sent to the users as reminders including the dates and times of their booked events 30 hours before the activity time.
Location:	No location
Justification:	Gathered from Brainstorm & Survey. Allows users to be kept up to date with their booked activities.
Priority:	Could have.

ID Code:	Functional Requirement 59
Title:	Notifications Video Links
Description:	Notifications should be sent to the users providing them with a link to YouTube of the new updated Activities video previews
Location:	User phones and Emails
Justification:	Gathered from Interview 3. Allows users to see video previews of new activities added.
Priority:	Could have.

ID Code:	Functional Requirement 60
Title:	Notifications Video Links
Description:	Notifications should be sent to the users providing them with a link to YouTube of the new updated Activities video previews
Location:	User phones and Emails
Justification:	Gathered from Interview 3. Allows users to see video previews of new activities added.
Priority:	Could have.

5.3 Non-Functional Requirements.

5.3.1 Performance Requirements

ID Code:	Non-Functional Requirement 1
Title:	Search activity engines
Description:	Search engines should display activities or events with the letters input from users in the title of the activity or event name.

ID Code:	Non-Functional Requirement 2
Title:	Geolocation API
Description:	User's location and distances should be displayed in kilometres and track real-time data on users' location.

ID Code:	Non-Functional Requirement 3
Title:	Google map JavaScript API
Description:	Google map should display routes and locations of activities and events.

ID Code:	Non-Functional Requirement 4
Title:	Verification codes
Description:	The app should send verification codes to user's email in a mean time of 60 seconds soon as the users register for an account.

ID Code:	Non-Functional Requirement 5
Title:	Payment confirmation

Description:	Users should receive confirmation of booking in a mean time of 30 seconds after payment is made.
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ID Code:	Non-Functional Requirement 6
Title:	Payment decline
Description:	Users should receive "Payment Decline" message if there are insufficient funds in payment accounts in a mean time of 30 seconds after payment is made.

ID Code:	Non-Functional Requirement 7
Title:	Error messages
Description:	App should display error messages with instructions of corrective actions for users.

5.3.2 Usability Requirements

ID Code:	Non-Functional Requirement 8
Title:	Imagery and videos on app should be displayed Full HD
Description:	All Images and videos of activities should be displayed in 1920 x 1080 px; equivalent to Full HD.

ID Code:	Non-Functional Requirement 9
Title:	Videos Subtitles
Description:	All videos should have English subtitles in white displayed on the videos

ID Code:	Non-Functional Requirement 10
Title:	Operate on mobile devices
Description:	App should operate on iPhones oldest version 5 and Samsung oldest version s4.

ID Code:	Non-Functional Requirement 11
Title:	Operate on Laptop and tablets devices
Description:	App should operate on laptop and tablet devices with at least windows 7 update.

ID Code:	Non-Functional Requirement 12
Title:	Font Type
Description:	App content should be displayed in large Dynamic Text that is clear and easy to read even for people with low levels of vision.

ID Code:	Non-Functional Requirement 13
Title:	Navigation layout
Description:	App should be simple navigations with all forms of navigation being clear visible areas allowing users to move throughout the page easily.

ID Code:	Non-Functional Requirement 14
Title:	Loading time span
Description:	App should load pages in a mean time from 0.5 seconds with devices with latest IOS and Android updates.

ID Code:	Non-Functional Requirement 15
Title:	Load registered users to database
Description:	App should register user details within 3 seconds of user pressing "Join now" to register details.

ID Code:	Non-Functional Requirement 16
Title:	Stars Ratings
Description:	Stars ratings should be bright and golden colour that is easy to see and to catch users attention span and for activities.

5.3.3 Availability Requirements

ID Code:	Non-Functional Requirement 17
Title:	YouTube Links
Description:	App should load and play videos from and with all versions of YouTube on mobile, tablets and laptop devices.

ID Code:	Non-Functional Requirement 18
Title:	Pay for external events via app
Description:	App should allow users to pay for external events such as Longitude, MK and electric Picnic directly on app.

ID Code:	Non-Functional Requirement 19
Title:	Voucher QR codes
Description:	Voucher QR codes should scan as images on all mobile devices.

5.3.4 Scalability Requirements

ID Code:	Non-Functional Requirement 20
Title:	IOS and Android
Description:	App should operate on all IOS and Android software's operating systems and devices.

ID Code:	Non-Functional Requirement 21
Title:	Python and Swift Programming language
Description:	App should be developed for both Python and Swift programming languages.

5.3.5 Security Requirements

ID Code:	Non-Functional Requirement 22
Title:	Visa Verification
Description:	Users must input Visa verification password to pay with credit cards.

ID Code:	Non-Functional Requirement 23
Title:	Sans standard encryption
Description:	User details shall be protected with Sans standard encryption technology information security program

Commented [MB2]:

Commented [MB3]:

ID Code:	Non-Functional Requirement 24
Title:	Passwords
Description:	User passwords should be displayed at asterisks at all times.

ID Code:	Non-Functional Requirement 25
Title:	Passwords restrictions
Description:	User password must be one number, one capital letter and eight characters.

ID Code:	Non-Functional Requirement 26
Title:	Incorporate PCI DSS
Description:	Incorporate payment cards industry data security standards for credit card schemes.

5.3.6 Other Requirements

ID Code:	Non-Functional Requirement 27
Title:	Cookies
Description:	App should activate cookies when user agrees with terms and conditions.

ID Code:	Non-Functional Requirement 28
Title:	Terms and conditions
Description:	App should process user's data and information to find users preferred activities and make suggestions when users clicks to agree with terms and conditions.

5.4 Out of Scope requirements

ID Code:	Functional Requirement 1
Title:	Estimate taxi fares
Description:	App should also provide estimate on taxi fares from the location of the user to the destination of the activity
Location:	Activities description
Justification:	Gathered from Brainstorm. This is out of scope as the plan is to implement this feature on the first version of an updated version of the Application.
Priority:	Won't have.

ID Code:	Functional Requirement 2
Title:	Provide activities to all European countries
Description:	App should send any notifications to registered users via email, texts messages and app pop ups.
Location:	Page: Select Activities
Justification:	Gathered from Surveys. As part of strategy plan, the decision was made by app sponsor to start up application just in Ireland. With more time, money and expansion it shall be created in future.
Priority:	Won't have.

ID Code:	Functional Requirement 3
Title:	Price comparison
Description:	App should compare the prices of similar activities provided by different organization.
Location:	Activity description
Justification:	Gathered from Survey. With discussion, this shall not be implemented, as it is free promotion for competing organizations.
Priority:	Won't have.

ID Code:	Functional Requirement 4
Title:	Send notifications close to weekends
Description:	App should send any notifications to registered users on days close to weekends (Thursday and Fridays).
Location:	User phones and Emails
Justification:	Gathered from Interview 3. This will not be included as it limits activities occurring during weekdays.
Priority:	Won't have.

ID Code:	Functional Requirement 5
Title:	Allow users to subscribe.
Description:	App should allow users to subscribe for upcoming events and activities incentives.
Location:	Page Booking
Justification:	Gathered from Interview 1 and Interview 3.
Priority:	Wont have.

ID Code:	Functional Requirement 6
Title:	Drop down prices of 10 euro.
Description:	App should allow users to select price range in dropdown of 10 euros.
Location:	Page Select Activity
Justification:	Gathered from Interview 1. Another solution was proposed to allow users to enter their exact price range.
Priority:	Wont have.

ID Code:	Functional Requirement 7
Title:	10 minute timer
Description:	App should have a timer of 10 minute to allow users to successfully book their activity.
Location:	Page Booking
Justification:	Gathered from Interview 1. This feature will be implemented in an updated version, as app sponsor doesn't want any factors that will drive users away in the early stages.
Priority:	Wont have.

ID Code:	Functional Requirement 8
Title:	Time and date availability checker.
Description:	App should provide time and dates for available activities
Location:	Page Activity Review
Justification:	Gathered from Interview 2 and brainstorm. The app will include dates of activities but time is restricted, as some activities are not based on time arrangement.
Priority:	Wont Have.

6. Appendix

6.1 Project Proposal

6.1.1 Activity-Fest Idea

Activity-Fest is an activity provider for consumers. Activity-Fest recommends a range of different types of activities available to do in the country. Activity-Fest offers opportunity for the consumers to find a variety of fun activities a city has to offer. From water activities to sky diving, go-karting, site seeing, to free activities Activity-Fest will provide you with the best options in regards to pricing, location and ratings of every activity you choose.

6.1.2 Objectives

The primary objectives of my final year project was to create a detailed requirement specification document for a new application called Activity Fest to help users locate things to do and activities local or areas close to them. The will be accomplished by gathering viewpoints from the range of stakeholders that all have association with the App. This project will involve formulating and gathering requirements from all the relevant stakeholders through various amount of requirement elicitation techniques to gather the entire requirement. Once all the requirements needed are gathered, it will be documented in a highly detailed requirement specification document. Along with this document many other tasks will be carried out which include a project proposal, project pitch, requirement specification analysis, midpoint presentation and a project showcase.

The objectives for the new app is to provide activities to its users and save time looking for activities to do while they are away on holiday or even just wanting to be fun and find something to do in the area they located in. When you are in a foreign or new area, sometimes it can be difficult to find fun things to do. This can be due to many barriers e.g. foreign languages / not having access to the best information to help find your actives and locate them. This app will allow users to find the most popular activities to do in the city, the closest activities to them and most importantly the activities that are within their budgets. Activity Fest will allow you to search for activities in categories for the type of activities you would like to do. EG. Outdoor- Water activities – Kite surfing. Activity Fest will provide a price gauge where you will be able to first enter the price range of how much you are willing to spend on the activities. Ultimately, you will be able find fun activities of your choice and in your budget.

The secondary objective of the app is to make the app appealing to users. The App will need to clearly spotlight the advantages and benefits of using the App over its competitors. The app idea can potentially be a leader in its market once created. Simplicity plays a key factor in delivering quality websites and Apps, in this app the aim is to deliver a user friendly and simple service that will make finding activities fun and easy.

As I progress through this project, I will have to keep to a schedule. I will be undertaking other tasks such as meeting deadlines for my other modules and progressing through this project at the same time all at a high standard. Following the project plan schedule will ensure I meet all my deliverables in time

and if schedule is met, I will successfully complete my projects meeting all if not most of the key requirements of the stakeholders.

6.1.3 Background

The app idea was inspired by an experience I had in trying to find an activity to do with my friends.

Majority of the websites I looked on to help find me things to do while in Ireland or abroad kept giving a minimum amount of deals and ideas, and sometimes they were out of my budget.

When looking for something to do, the apps would display all the deals they had at once without any sort categories. It was difficult to decide what I wanted to do or even compare which deals are the best for experience and for money.

They did not provide options as to what I would like to do or even prompt me to do try something new. It felt like it was, these are the deals for activities, etc. we have, take it or leave **it!**

There was no beneficial feedback from customers who has purchased the deals before. The review would show the amount of people that purchased the deal, which was not a good indicator for how good the experience was.

The apps never had on-app maps, they displayed the address, and users would have to copy and paste the address onto google maps. Overall, it was not user friendly.

The tourism websites just provided information but will not allow you to book activities on the website or provide any review on the activities.

All these small issues add up and usually prevent you from finding activities to do. I wanted to make my own app to tackle all these small – medium annoying issues. The goal was make the time choosing activities more efficient and increase the numbers of people successfully finding activities to do.

6.1.4 Technical approach

A number of technical approaches will be used for the documentation of my app idea. A prototype will be created at an elicitation technique. The prototype will display navigation of the app and some functionality of how the app will work. This will be produced using the NetBeans software and Balsamic. Google forms will be used to create and distribute survey and create visual data on the results. Part of the deliverables for the project will be to display the projects at a project showcase in the college atrium to representatives of big organizations that will come to visit. The poster will be created using power point.

6.1.5 Building the Prototype

1) Gathering and documenting requirements:

This step will involve me meeting some of my stakeholders that will allow me to gather some initial ideas to formulate requirements. This will be my brainstorming session and will involve some students and friends. Surveys, interviews and a document analysis will be conducted. From these sessions, requirements will be generated and features are to be identified. The requirements from the sessions will be gathered and documented and a framework will be made from the information.

2) Creating prototype

This stage will be the creation of the prototype that will be used in the mid-point presentation. The prototype will be either created with balsamic or wire framing.

3) App prototype Development

This stage will involve the development of the app prototype. The requirements gathered and documented from the stakeholders will be used, as features of the app will be based on the requirements.

4) App review

This stage is prior to the project showcase. I will show my app prototype to my supervisor and he will recommend changes that may need to implement. Once I have received feedback I can then be ready for the project showcase with a poster and visual demonstration of how the app will work.

6.1.6 Benefits of Idea

- The benefits of the Activity-Fest are to provide a simplistic, easy to use service allowing you to find any type of activities in the city.
- Activity-Fest will help you with a variety of things to do if you are in a foreign city and do not know many places.
- Activity-Fest will give you opportunity to experience new and different things to do.
- Activity-Fest allows you to budget how much you are willing to spend on activities.
- Activity-Fest provides you with free local activities.
- Activity-Fest locates activities that are close to your location.
- Activity-Fest provide business more customers as they will be listed on the App.
- Activity- Fest connects you with google maps so you can easily plan your route to the activities within the app.

6.1.7 SWOT Analysis

<p>Strengths.</p> <ul style="list-style-type: none"> • Provides several of activities to do. • Provide new experiences for users. • Allows planning of journey and budgeting. • Support small- medium and startup businesses with customers with limited marketing resources. • Free activities can gain customer attention and publicity on app. 	<p>Weaknesses.</p> <ul style="list-style-type: none"> • App could be used as a onetime service so it will be tough to gain customer loyalty. • As a startup lack of popular activity businesses on the app. • Lack of market share from competitors.
<p>Opportunities.</p> <ul style="list-style-type: none"> • Can build relationship with businesses for providing customers. • Create personalized promotion of activities for users based on activities they previously purchased • Build strong customer loyalty 	<p>Threats.</p> <ul style="list-style-type: none"> • Competitors offering similar services. • Big name companies already in market will make it tough to gain market share. • Economy slows down customers will not be wanting spending money on activities. • Some activities are weather dependent.

6.1.8 Target Market

The Target group of Activity Fest are both females and males aged from 18 – 65. The target group of the app are people who enjoy opportunities to seek fun in a variety of leisure activities and event in the country they are in.

The app focuses on the people who prefer online booking and transactions

Tourist and holiday goers from all over the world. We target the people who are seeking leisure activities and excursions while they are visiting the city they are in. The aim is to allow them see the many attractions and participate in experiences that are available in a country. We realize that people who are touring may want to use the public transport to really feel atmosphere of the country.

6.1.9 Competitors

There are competitors to this app but directly and indirectly. The competition would be where do the customers first go when trying to find activities to do?

The competitors are:

1. Groupon- Offer daily recommendation service for their consumer. They offer coupon discounts for activities, restaurants, perfumes electric products and many more at discounted prices.
2. Living Social – Offer day-to-day deals for customer to purchase in their city. These offers include activities, restaurants, getaways beauty etc. They also allow their registered users to offer activities out to get further discounts for themselves.
3. Yipit – Offer the deals available in your city such restaurant’s spas sport games etc. at discounted prices.
4. Ireland – Tourism website that provides information on activities, events, accommodation and much more in Ireland.

6.1.10 Stakeholders List.

- Business analyst (me)
- Students
- Business owners
- Software developer
- Tourists
- App Client
- Project Manager
- Supervisor

6.1.11 Special resources required

Canava will be used to create a poster.

WordPress was used to develop the Activity-Fest Website.

IPhone was used to record the 3 minute video

Filmora was used to edit the videos.

I have studied programming using the software NetBeans during that module. NetBeans will be the software I will use to create my prototype

Google forms will be used to create and distribute surveys.

The following resources are going to be used to increase my knowledge and skills to carry out the tasks I need to do with the software.

Other Resources:

1. Written tutorials on how to create a poster
2. YouTube videos on how to use NetBeans efficiently
3. View applications created with NetBeans
4. Lessons with an experienced NetBeans user.
1. Dropbox
2. Microsoft
3. Coding tutorials
4. Balsamic
5. IEEE requirement document templates
6. Babok book
7. Consultancy
8. Lecture notes from Requirements management module

6.1.12 Project Plan (Ongoing)

Project Plan Activity-Fest

						Period Highlight:
Tasks	Start Date	Plan Finish Date	Actual finish Date	Duration Days	PERCENT COMPLETE	
Identify Possible Project idea	15/09/2017	01/10/2017	22/09/2017	7	100%	
Broad research of project, (stakeholders, target market, existing idea)	22/09/2017	01/10/2017	29/09/2017	7	100%	
Prepare pitch for dragon den.	28/09/2017	02/10/2017	30/09/2017	2	100%	
Pitch project idea for approval. (Deliverable 1)	02/10/2017	02/10/2017	02/10/2017	0	100%	
Create September reflective journal	04/10/2017	04/10/2017	04/10/2017	0	100%	
Continue further research for project plan	05/10/2017	27/10/2017	27/11/2017	53	100%	
Create relevant project proposal template	13/10/2017	16/10/2017	17/10/2017	4	100%	
Create project proposal document	13/10/2017	27/10/2017	30/10/2017	17	100%	
Submit project proposal (Deliverable 2)	27/10/2017	27/10/2017	27/10/2017	0	100%	
Identify stakeholders	02/11/2017	24/11/2017	30/11/2017	28	100%	
Create October reflective journal	04/11/2017	04/11/2017	04/11/2017	0	100%	
Document preliminary elicitation document	05/11/2017	24/11/2017	27/11/2017	22	100%	
Carry out Brainstorm session	22/11/2017	22/11/2017	22/11/2017	0	100%	
Create midpoint requirement specification document	27/11/2017	24/11/2017	30/11/2017	3	100%	
Submit requirement Spec Document. (Deliverable 3)	30/10/2017	24/11/2017	27/11/2017	28	100%	
Review document	27/11/2017	27/11/2017	27/11/2017	0	100%	
Submit midpoint requirement Spec Document. (Deliverable 4)	27/11/2017	27/11/2017	30/11/2017	3	100%	
Draft interview questions	27/11/2017	03/12/2017	01/12/2017	4	100%	
Draft Survey questions	27/11/2017	03/12/2017	04/12/2017	7	100%	
Create low fidelity prototype	25/11/2017	02/12/2017	04/12/2017	9	100%	
Prepare for midpoint Presentation.	02/12/2017	02/12/2017	02/12/2017	0	100%	
Create November reflective journal	04/12/2017	04/12/2017	04/12/2017	0	100%	
Midpoint Presentation	06/12/2017	06/12/2017	06/12/2017	0	100%	
Create December reflective journal	04/01/2018	04/01/2018	04/01/2018	0	100%	

Create and finalise survey questions	23/01/2018	08/02/2018	04/02/2018	12	100%
Create and finalise Interview questions	23/01/2018	08/02/2018	04/02/2018	12	100%
Create January reflective journal	04/02/2018	04/02/2018	04/02/2018	0	100%
Release and distribute survey	08/02/2018	08/03/2018	08/03/2018	28	100%
Carry out Interviews.	21/02/2018	01/03/2018	28/03/2018	35	100%
Consult with supervisor for corrections	14/02/2018	14/03/2018	14/03/2018	28	100%
Create February reflective journal	04/03/2018	04/03/2018	04/03/2018	0	100%
Create first version prototype	16/03/2018	25/03/2018	28/03/2018	12	100%
Carry out requirement workshop	30/03/2018	30/03/2018	30/03/2018	0	100%
Consult with stakeholders for corrections	31/03/2018	31/03/2018	31/03/2018	0	100%
Create second Prototype	01/04/2018	01/04/2018	01/04/2018	0	100%
Create March reflective journal	04/04/2018	04/04/2018	04/04/2018	0	100%
Document techniques results	01/04/2018	10/04/2018	12/04/2018	11	100%
Consult with supervisor for corrections	13/04/2018	13/04/2018	13/04/2018	0	100%
Create Interface analysis	16/04/2018	18/04/2018	17/04/2018	1	100%
Create document analysis	20/04/2018	23/04/2018	22/04/2018	2	100%
Document and prioritise requirements	27/04/2018	28/04/2018	28/04/2018	1	100%
Create April reflective journal	04/05/2018	04/05/2018	04/05/2018	0	100%
Create IEEE specification document	30/04/2018	08/05/2018	04/05/2018	4	100%
Create showcase poster	05/05/2018	05/05/2018	05/05/2018	0	100%
Develop project website	09/05/2018	10/05/2018	10/05/2018	1	100%
Final document submission	11/05/2018	11/05/2018	11/05/2018	0	100%
Prepare for Final Presentation	14/05/2018	25/05/2018	unknown	#VALUE!	30%
Project showcase	30/05/2018	30/05/2018	30/05/2018	0	5%

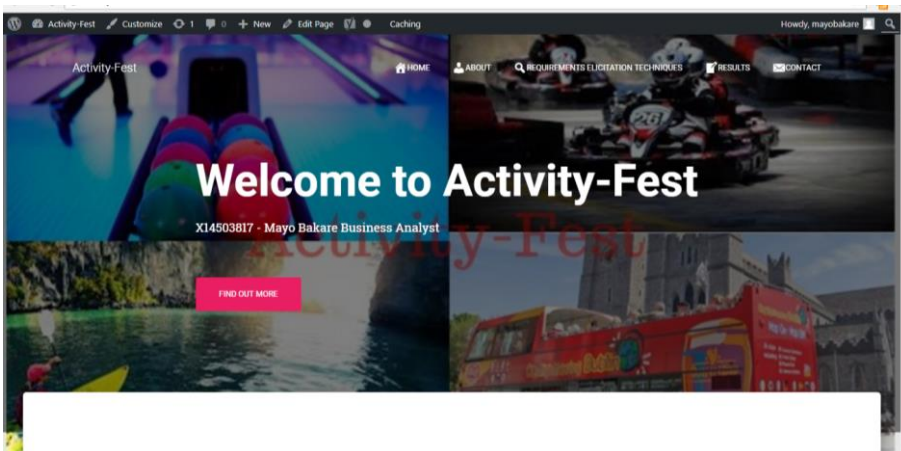
6.1.13 Technical Details

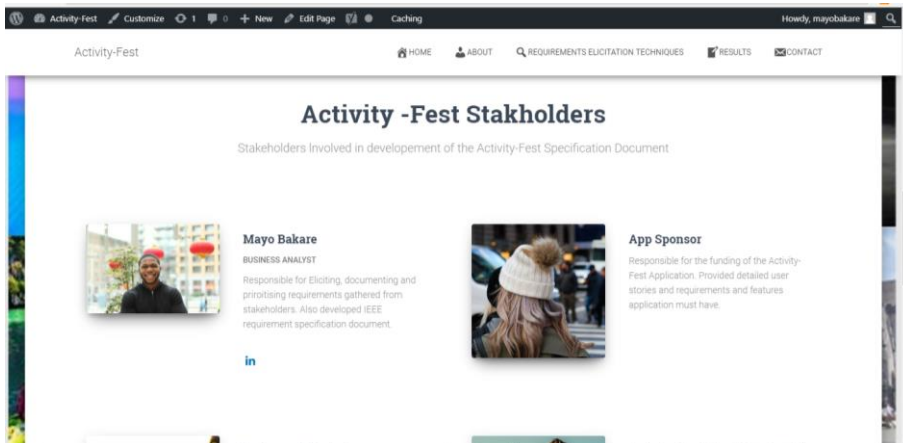
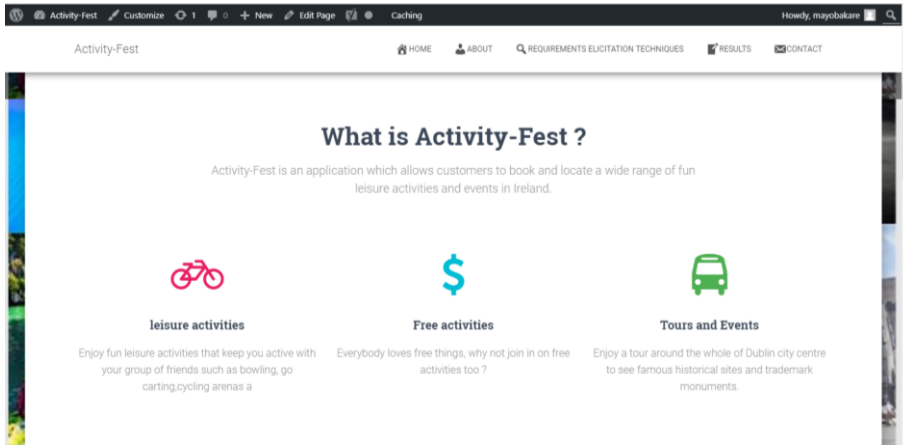
WordPress is what I decided to use to develop my Activity-fest project website. WordPress is very user friendly and allows you to make some good customization to the layout and structure of the website. Personal themes can be chosen and with many different layout structure. WordPress also allows me to publish my website free once I have fully completed my website. WordPress also provides flexibility allowing you to make some edits using your own knowledge of coding, which can be used to provide some uniqueness in the website. WordPress automatically saves work as you progress in developing the website. This provides great safety and security in the case you may lose your work. I will use WordPress to display parts of my project, such as the eliciting results and techniques. The results of techniques such as Surveys will be displayed and some visuals of my prototype and interface analysis will be displayed. I will display my add idea in the Project Showcase held on the 30th of May. This will include task and activities I completed during the project and provide a 3-minute video of me discussing my project.

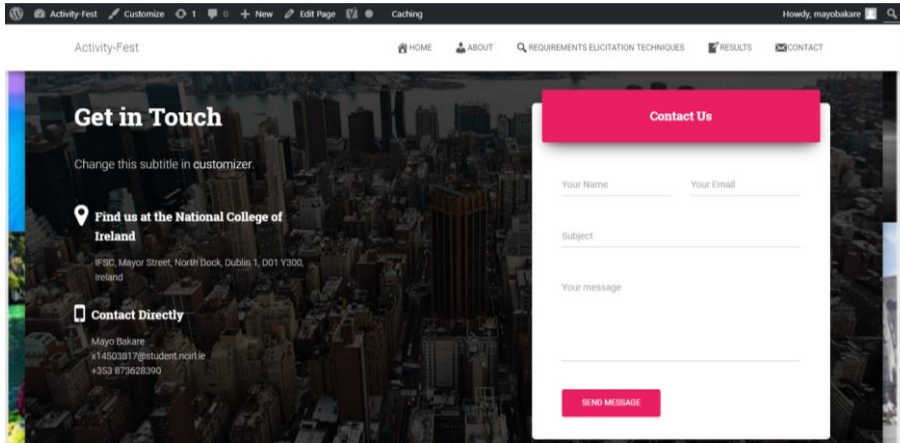
6.1.13.1 Activity-Fest.com website

(<http://activity-fest.com>)

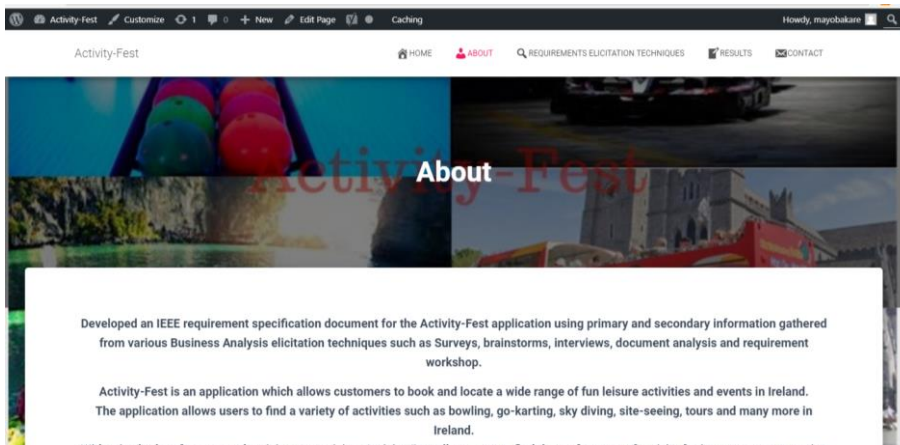
6.1.13.1.1 Homepage





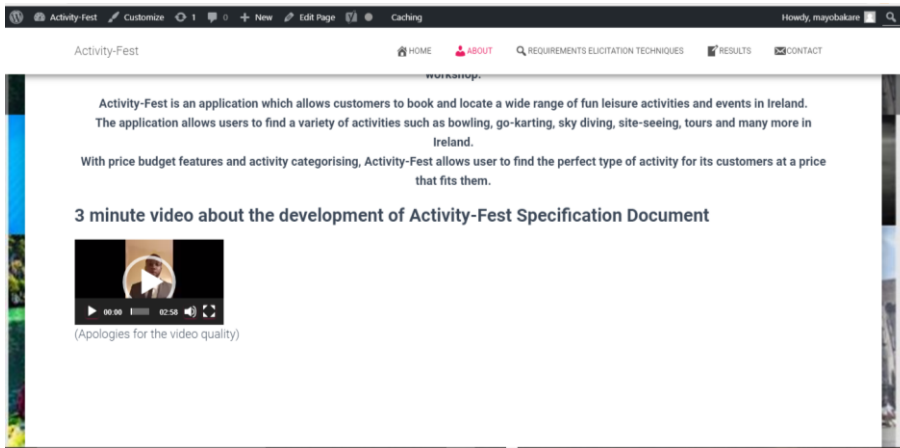


6.1.13. 1.2 About Page

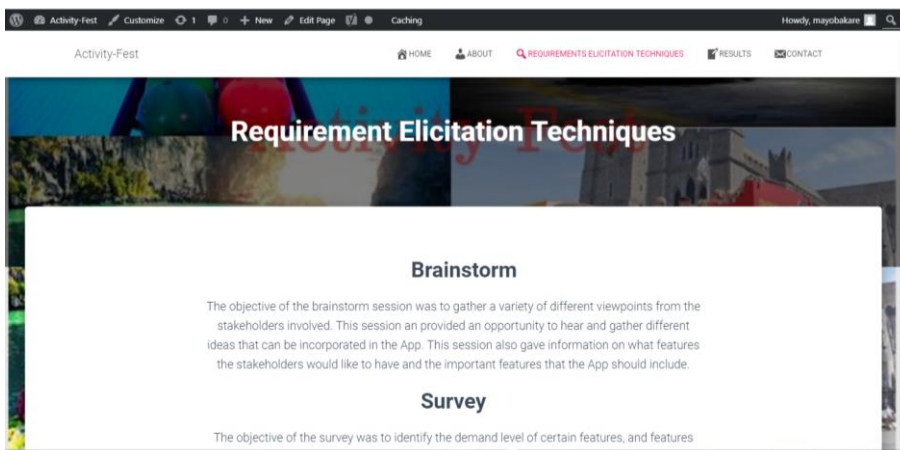


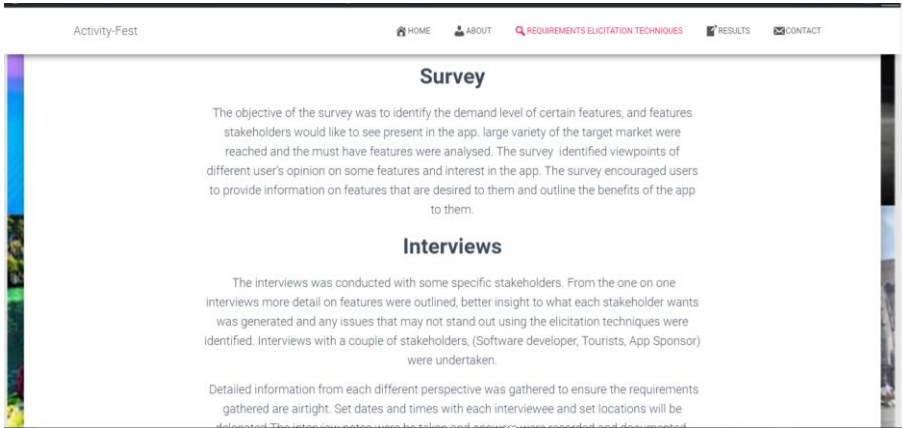
Activity-Fest

Mayo Bakare X14503817

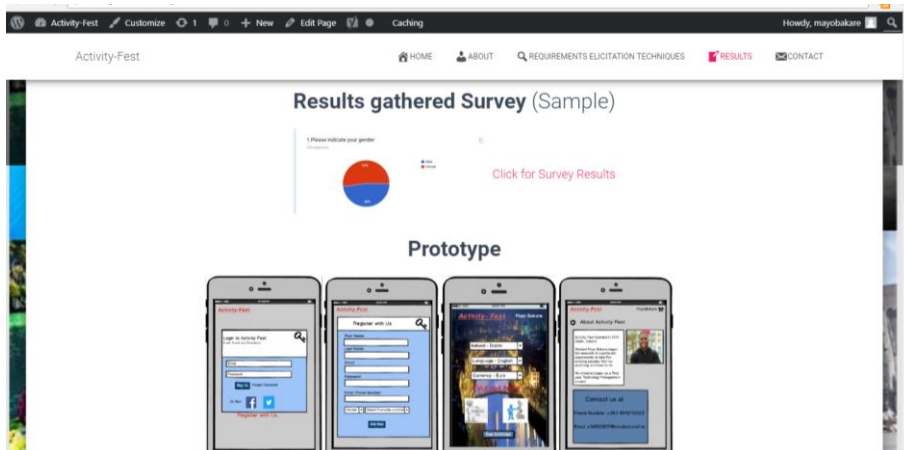


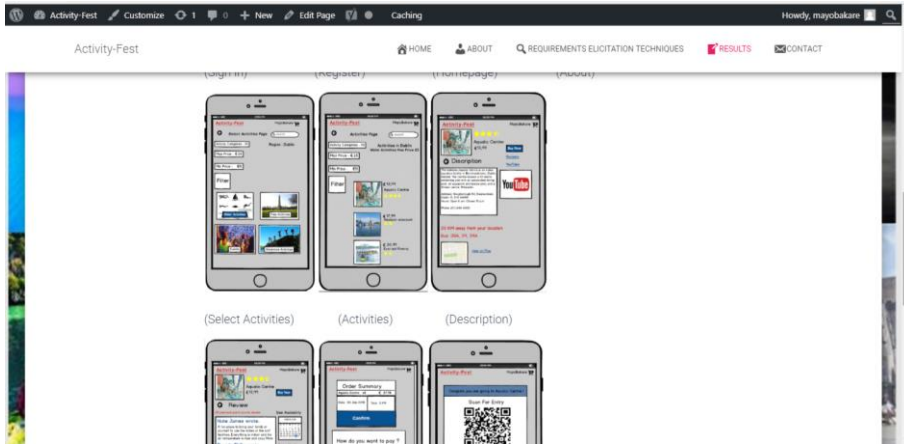
6.1.13.1.3 Requirements Elicitation techniques



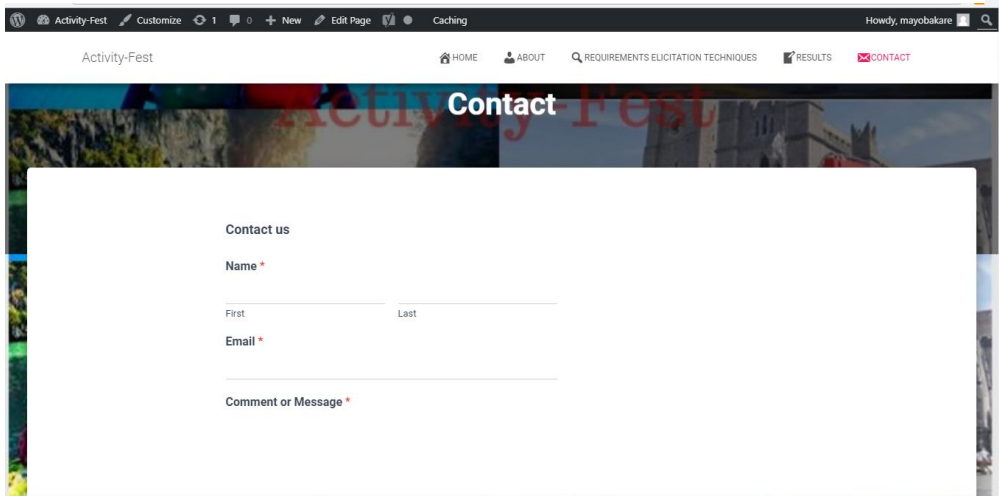


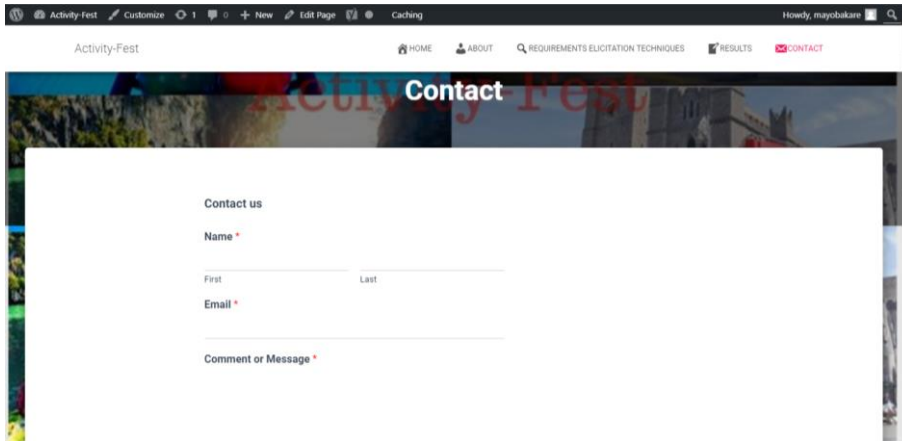
6.1.13.1.4 Results Page





6.1.13.1.5 Contact Page





6.1.14 How App Makes Money

Activity merchants

(Provide 30 customers that purchase activity vouchers from Activity-Fest app per activity merchant). After 30 customers have purchased vouchers per activity merchant, the remaining purchased vouchers after 30 will generate as Activity-Fest revenue.

Marketing Fees

There will be standard promotion and advertising charge for activity merchants to promote their company and services through Activity-Fest.

Standard charges for promotion of activity on the Activity-Fest app will stand at €80 for general promotion on app.

An additional €40 will be charged for activities and notifications sent directly to Activity-Fest registered customers per notification.

Premium additional charges starting at €30 per activity will be charged for activities to display first when customers are searching for activities.

6.1.15 Evaluation

From the beginning of my project, the plan is to use some requirement elicitation techniques to gather the requirements for the specification documents. The techniques I will be using will be surveys, interviews, brainstorm sessions prototyping and document analysis. Some of these techniques I will have previous experience and knowledge carrying them out as they are part of my requirement management assignment.

These are the general techniques I will be using but of course, I will also try implementing some other techniques to gather more requirements. Some other techniques that I could possibly be using will be estimating, decision analysis and interface analysis. From these techniques, I hope to gather important requirements for my app and it will help me to create a highly detailed requirement specification document. As soon as everything is documented and reviewed by the relevant parties, the development of the app can take place purely from the information gathered in the document.

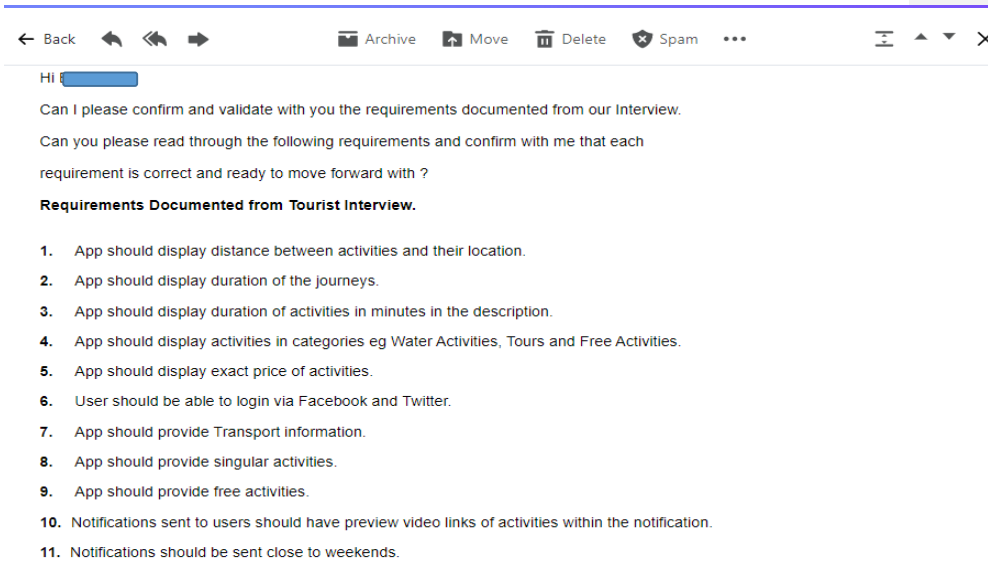
I will aim to start preparing my techniques and identify who will be participating in the sessions during the course of this month. After my midpoint presentation

in early December, I will continue to gather requirements and information and have them completed by mid-march of next semester. During the course of that time, I will be meeting with clients of my software app, as well as paying close attention to my other priorities (CAs, tests and study). After I have gathered all my requirements and information that will be implemented, I will continue to meet with clients ensuring requirements are airtight and there is no loopholes. Everything will then be documented into a file and reviewed by my supervisor for his opinion on where improvements can be made. Relevant changes will be made and the document should be finally completed by 18th of May for submission.

Signature of student and date

6.2 Validation of Requirements gathered during interview

Tourist: Email sent to tourist to validate requirements gathered from Interview.



8. App should provide singular activities.
 9. App should provide free activities.
 10. Notifications sent to users should have preview video links of activities within the notification.
 11. Notifications should be sent close to weekends.
 12. Notifications should be sent Via Email or through phone notifications.
 13. App should display address of activity.
 14. App should allow users to "subscribe" for upcoming events and incentives.
 15. App should allow users to pay for external events and festivals through app eg Longitude
- Looking forward to hearing back from you.
- Mayo Bakare.

Sent from Yahoo Mail. [Get the app](#)

> Show original message



Hi Mayo,

I confirm the documented requirements, they are accurate and I am happy to move forward with them.

Kind regards,
[Redacted]

Sent from my iPhone

> Show original message

[Reply](#), [Reply all](#) or [Forward](#)

Software Developers: Validation of Requirements Documented sent to Software Developer from Interview.

Hi [Redacted]

Can I please confirm and validate with you the requirements documented from our Interview.

Can you please read through the following requirements and confirm with me that each requirement is correct and ready to move forward with ?

Requirements gathered from Software Developers Interview.

1. App should be built with Python programming language.
2. There should be a minimum and maximum search bar for price amounts.
3. Drop down menu of price amounts going up and down in 10 euros.
4. Input bar for exact price amounts.
5. Pop up box displaying “No activities available please search again”. (If no activities avail of within price range).
6. Submit button for entering activity search criteria's.
7. App should incorporate Google map Java script API.
8. App should incorporate Geolocation API
9. Users should be able to input current location in text manually.
10. App should be able to use the “user's location”.
11. App should incorporate a YouTube link for video previews.
12. Admin should be able to upload pictures of activities with admin access.

13. App should be able to send notifications via Email, texts, notification pop ups.
14. App should be able to send notifications on a weekly schedule.
15. App should Incorporate PayPal.
16. App should Incorporate Visa verification.
17. Users will be able to add to basket and checkout.
18. Ten Minute timer counts down from when user clicks "add to basket".
19. User should be able click on "add more" to add more activities in basket.
20. Time and availability button should be beside "add" to basket button to check availability of activity.
21. Users should be able to login and register with Facebook and Twitter.
22. Password should be displayed in *
23. Passwords must have at least one number, one capital letter and eight characters.
24. User must input name, contact number, interest, gender and email when registering.
25. App should send verification code to email when registering for activation
26. Reviews should be located in gold stars of five under picture of activity.
27. Review link should be display under activity
28. Review page will display review information and activity description.
29. Review box should have "submit" button to add reviews.

25. App should send verification code to email when registering for activation
26. Reviews should be located in gold stars of five under picture of activity.
27. Review link should be display under activity
28. Review page will display review information and activity description.
29. Review box should have "submit" button to add reviews.
30. App should Incorporate Payment cards industry data security standards.
31. App should display distance between their location and the location of selected activities.
32. App should incorporate cookies.
33. APP should display pop up of accepting use of cookies.
34. App should have a subscription button.
35. Activities amount reduce by 20% for first purchase when user subscribes.

Best Wishes

Mayo Bakare.

Sent from Yahoo Mail. [Get the app](#)



Software Developers: Software Developer confirming requirements documented.

Hi Mayo,

I can confirm that I have read through the requirements and I very happy to move forward with these documented requirements.

Best wishes,

[Redacted]

> Show original message

[Reply](#), [Reply all](#) or [Forward](#)

App Sponsor: Requirements gathered validated with App sponsor Interview.

Hi [Redacted]

Can I please confirm and validate with you the requirements documented from our Interview.

Can you please read through the following requirements and confirm with me that each requirement is correct and ready to move forward with ?

Requirements from App sponsor Interview.

1. Activities should be sorted in categorized based on type of activity.
2. User should be able to sort activities based on price limits.
3. App should incorporate reviews page.
4. App should display location and address of activities beside the name of the activity.
5. Users should be able login and register with Facebook and twitter.
6. Users should have options to save password.
7. Users can book activities through the app.
8. App should display description of activity.
9. Rating of activities should be located under each activity in stars of 5.
10. App should display activities close to user's location. (20km radius)
11. Homepage1 should have logo in middle of page while page is loading when app is first opened.
12. Users can input exact amount in minimum and maximum price filter.

Activity-Fest

Mayo Bakare X14503817

12. Users can input exact amount in minimum and maximum price filter.
13. User can search for more activities with "search more activities" button.
14. Users can search activities by name on search bar.
15. Registration page should have Name, Age, Email, click on images to ensure they are not a robot, questionnaires
16. Homepage2 should display some activities
17. Users should be able to check availability of the activities by available time and dates.
18. Users should be able to pay via PayPal and credit Card
19. App should ask for verification code.
20. App should display weather conditions for dates of activities booked.
21. Review page should have video links to YouTube displaying feedback videos.
22. App should provide similar activities recommendations,
23. Users should be able to change currency.
24. Users should be able to search words in their own language.

Kind Regards,

Mayo Bakare.

Sent from Yahoo Mail. [Get the app](#)

App Sponsor: Validated all requirements bar number 15 and suggested that would be amended.

Hi Mayo,

I have had a close look at the requirements documented,

I can validate and confirm that the requirements are ready to move forward with bar requirement 15.

In a recent experience I have come to realise how annoying the extra procedures of logging in and registering are.

In requirement 15 I propose to amend the registering process to just enter their name, age, email, and short questions for the users interest.

The CAPTCHA could be removed.

Other than this small issue, I am happy to move forward with the requirements

Kind regards

Activity-Fest

Mayo Bakare X14503817

6.2.1 Validation of Interview Briefings



Mayowa Bakare

Application Name: Activity – Fest

Interviewer 1: Mayo Bakare

Interviewer 2: TBC

Interviewee title: App Sponsor

Interview Objective: The objective of the interview is to provide insight to what important features and requirements must be implemented. Identify what objectives the sponsor wishes to gain from app. In addition, to identify features that will be utilised on the App.

Application Overview

Activity–Fest is an application that provides consumers and users with a wide range of fun leisure activities to do in the city or country that they are in. . Activity-Fest provides ranges of different types of activities available a country. Activity-Fest offers opportunity for the consumers to find a variety of fun activities a city has to offer. From water activities to sky diving, go-karting, site seeing, to free activities Activity-Fest will provide you with the best options in regards to pricing, location and ratings of every activity you choose.

Initial proposed features to be implemented

1. Price budget filter.
2. Transport service information.
3. Video and picture previews of activities.
4. Notification for upcoming events.
5. Book activities directly through app.
6. Locate activities nearest to user.

Prototype demonstration

Prototype low-fidelity.

Requirement: App should filter activities according to price.

1) Homepage - User click see all activities



2) User sets price and type of activity.





Mayowa Bakare

Activity-Fest

Mayo Bakare X14503817

Application Name: Activity – Fest

Interviewer 1: Mayo Bakare

Interviewer 2: TBC

Interviewee title: Tourist

Interview Objective: The objective of the interview will be to develop ideas & features and to gather insights to what issues tourist generally face when finding activities, and to determine how the app will aid to solve some of these issues.

Application Overview

Activity-Fest is an application that provides consumers and users with a wide range of fun leisure activities to do in the city or country that they are in. . Activity-Fest provides ranges of different types of activities available a country. Activity-Fest offers opportunity for the consumers to find a variety of fun activities a city has to offer. From water activities to sky diving, go-karting, site seeing, to free activities Activity-Fest will provide you with the best options in regards to pricing, location and ratings of every activity you choose.

Initial proposed features to be implemented

7. Price budget filter.
8. Transport service information.
9. Video and picture previews of activities.
10. Notification for upcoming events.
11. Book activities directly through app.
12. Locate activities nearest to user.

Prototype demonstration

Prototype low-fidelity.

Requirement: App should filter activities according to price.

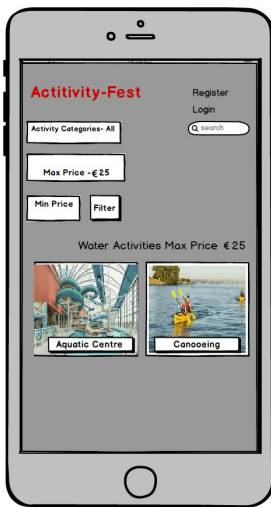
2) Homepage - User click see all activities



2) User sets price and type of activity.



3) App displays activities within the users price filter.



Sign _____ (SIGNED BUT IDENITTY TO NOT BE DISPLAYED IN DOCUMENTATION TO BE SUBMITTED)

DATE: 27/3/2017.

6.3 Reflective Journals

Student name: Mayo Bakare.

Programme: BSc in Technology Management- Business Analysis.

Month: September 2017.

6.3.1 September

Today I start the final year of my BSC Technology Management in The National College of Ireland. I have been hit with a lot of information in the first 9 am on Monday. Instantly I felt the pressure arise. I started to document my idea that I had thought of during the summer. I have been given the possible dates as to when my project pitch will be held. During the course of my first week I have been given the overview of all my courses, the assignments due dates and expectations from us. This gave me the opportunity to plan how I am going to get through the whole semester, keeping up with my studies assignments projects gym and a tiny bit of social life to keep myself sane. The second week I was given a few assignments and I was given an insight as to what is to come for the projects and also attended classes with Eugene and Eamon who will both be on my case to make sure I keep up with deadlines. I am a bit nervous of how the year will go and everything at the moment is VERY overwhelming. However, I am hoping the semester will work out in my favour. I have done a bit more research on my research and Concluded I will be doing the Business Analysis Approach My project idea will be a requirement specification document about an activity provider application. How I came up with this idea was one day during my work placement, I was fed up of working during the week and on the weekends, and my friends had to resume their own work. Life was getting boring so I decided that let try find something to do that does not include clubbing and alcohol. I could not think of anything fun and in my budget was being paid at end of the month) so I went on a number of websites and searched for fun things to do. I could not find a single thing exciting and I ended up going to a bar with work colleagues. It then hit me that there is not actually a popular website just advertising activities to do in Dublin. From there is just dotted down that in my copy and researched in college.

6.3.2 October

Student name: Mayo Bakare.

Programme: BSc in Technology Management- Business Analysis.

Month: October 2017.

In October I finally got up and running with college. I started my assignments nice and early to keep on top of all my modules. I attended all the project classes so far and Eamon has really given an insight as to what is expected from us. I completed my project pitch to my lecturers and I was approved by all the lecturers (with some minor changes to project idea). I was absolutely delighted and a weight was lifted. I began writing my project proposal and began some in depth research on my project idea. Along with my course work and project I also have been in the middle of applying for grad programmes which take up some time to fill out each application. I haven't had much luck or much responses but I'm still being hopeful in the early stages I have been assigned my supervisor which is Eugene O Loughlin and I have had a group meeting with him to discuss with us what he would like to see in the project and what is expected of us. I completed writing my project proposal and had a second meeting with Eugene. He advised me to make some changes to the pitch but insisted I was heading the right way. I made those changes and to be honest I still uploaded my proposal up late lol. (Technical difficulties).

Dates of Supervisor meetings: 9th October

20th October

6.3.3 November

In November College, work has started to take its toll. My gym sessions have started to become inconsistent and shorter from being so busy trying to stay on top of all the work. November felt like a major make or break point in college as this is where the heavy load of assignments needed to be done and submitted and the next deliverable for our projects. I continued attending Eamons classes and one on one sessions with Eugene. My biggest challenge has been developing survey questions and interviews questions that are up to the standard that Eugene wants. I did not think it would be this difficult.

For my project, I have been going along the right path. Identified the major techniques that I will be using to elicit requirements and I prepared some mock questions for my interviews and surveys.

The major content of this deliverable was to identify the techniques that will be used, executive summary, Business case and need and combine the proposal into a united document. This document was going to be marked as part of our midpoint presentation. On top of doing this, I had a few assignments that needed to be completed. I am slowly making progress in the right directions. I have been sacrificing a lot of my social and exercise but I guess sometimes it has needed to be done, as it is my final year.

I have not had much luck with the graduate progress and it has gone lower in my priority list but I am still attending meeting with Helen my career guidance.

Dates of Supervisor meetings: 3rd 10th 17th 24th November

6.3.4 December

The first 2 weeks of December were extremely busy and nerve breaking. The preliminary requirement elicitation and midpoint commenced and were submitted for grading. A lot of time and preparation was done in completing my document. The document carried most of the marks of the 25% in to total with the midpoint presentation. This is why I put so much effort in into achieving the best marks possible. Many late nights crept in but I did not mind. Once I submitted the document, I had a weekend to prepare for my midpoint, which went overly well. The morning of the presentation, I came in early to prepare and I saw many nerves coming from the other students. I was nervous as well but at the same time confident as I put excess work in and all I needed to do was believe in myself. After my presentation, I came out with joy and relief and was delighted that the first $\frac{1}{4}$ of the project work was all over. All was left was to get my results back but it was out my hand and into Gods. With many prayerful nights on the last day, before we went on break we received our results and could not believe how happy I was with my results. It really put me in the great mood and spirit before we had to go and study.

After that, all that was on my list to do was study for the exam. We have 5 and it were not going to be easy. My CA results were not as well as I hoped they would be so more pressure was added to ensuring I did well my exams.

I attend a mock interview with Helen as I finally got one call back. From a graduate programme. She gave good advised and I have taken her orders.

Dates of Supervisor meetings: 3rd 10th 17th 24th November

6.3.5 January

January reflective journal

The January month has been a hectic in terms in terms exams, work and following on progress on my project. I had 5 very tough exams and what made this worse were that the exams were a few days earlier than I previous years. Those few days make a big difference in terms of having more time for preparation. Fortunately, I made it through the exams alive and I felt very confident with them all. Due to the exams, this meant that significant progress was not made in regards to my project. Alternatively, I decided to make a small project plan outlining the days I would like to have elements I would have like to have completed in the following months. I began scheduling when my Interviews were to take place and tried to find a mutual date where my stakeholders would avail. This may seem like an easy task, but it really proved difficult trying to find a date where it would suit all stakeholders. I decided to arouse more interest by offering some incentives to the stakeholders participating in my interviews. These incentives would be something small like a free lunch or tea and coffee. I also reviewed project and made some corrective measures based on the feedback that was provided to me during my presentation. Also In late December I received my results and scored a 1st in the mid-point presentation and preliminary requirement spec. This really boosted my confidence as it showed me that I was on good track and that if I increase my work on my project on the second semester that I potentially could score very high. I had my supervisor meeting and he told me what the next series of actions that needed to be taken to make progress on my project. So far, I am on track and everything is going well for the position that I am in.

6.3.6 February

This February month was a big wakeup call and a realisation of how much work that really needed to be done. In February I really focused on carrying out activities that involved me interacting with my stakeholders. Firstly, I really concentrated on finalising my surveys. They were really giving me trouble in writing up and finalising and my supervisor previously kept telling me to revisit them. I dedicated a few night reading up how to phrase questions that will enable me to gather some requirements and features. Finally, I got them approved by my supervisor and I was able to distribute them. I was excited to find new features and to see how many people would interact with my app idea. I distributed them to many people and my former work places in order to get responses in a variety of viewpoints. I also attended classes with Eamon who tried his best to keep us up to date on what deliverables were coming next. I had attended some classes with same Cogan who gave us some classes on how to use word press, which was needed for our project show case. This was a bit complicated than I thought. I carried interviews with my software developer and a tourist in this month. Both interviews went fabulously well I gathered many different requirements and insights to what features and functionality would benefit my stakeholders. My software developer provided me with real professional insights as to how many different ways that certain features could be done and how costly it would be to implement the features onto the app. Overall it was a successful set of interviews and I plan to complete my other interviews in the next following weeks. My class assignments have started to apply pressure on me and I have just recently began a new job. This was needed to be able to provide for myself but it will keep me very disciplined as I have to ensure my projects and assignments are still to a high quality even with less time. Coming to the end of the month my survey responses are coming in very fast and from brief looks of the responses I can see some interesting data collected. I plan to close to my survey when it hits 100 responses, this will be a significant amount of responses to be able to analyse strong data and elicit requirements.

6.3.7 March

March was a very successful month in terms of progression of my project. I had a meeting with my supervisor and he held a class regarding the marking scheme of the project. A student asked what stage we should be at in the project by now. Our supervisor gave us an insight as to what should point we should be at based on experience, the response was worrying as I felt I was up to where I was supposed to be and this was a major wake up call. Earlier in the month, I successfully got 100 responses from my surveys which was the required amount and I was happy with that. I completed my final interview with my App sponsor, which he gave me, very important requirement and information that was needed for my project. This month I, felt was the make or break of my project as if enough work was not completed. Along with assignments and study for upcoming exams, I felt I would run out of time and produce an unfinished, poor quality requirement spec, so I knew this month and the 2 weeks break I was going to keep my head down, block all distractions and get some good quality work done. I started first with analysing and documenting results I gathered from my interviews, surveys and brainstorm into my document. I then contacted my stakeholders to arrange a workshop with them. By this stage, I had completed Prototype version 1 that I was going to use in my workshop session. The session was very successful and allowed me to verify, validate and prioritise some requirements. After the session I used the feedback to create my prototype version 2 and from there went on to complete my interface analysis. I then had another supervisor meeting to discuss my progress on my work. This went well I have left myself in a good position to fully concentrate on my exams and time for me to complete my project. I had a setback with news on the deliverable dates. I found out that I had to complete my WordPress and poster all due at the same time as my project. This means I have less time to complete to my requirement spec. I really I am planning to pull all nighters if it means necessary to ensure my project is complete to the highest quality possible.

7. Lessons Learned in 5 process group format

Purpose

The Purpose of the lessons learned process is to compile and document success, opportunities for improvement, failures, and recommendations for improving the performance of future projects or project phrases (Babok, 2018)

Deliverable 1 (Initiation)

Business case and proposal

During the initiation stage of the project, we created a project proposal, we first had to perform create research as to what project we will be doing, this involved defining a project, the need for the project and identify the scope of the project. This was proposed in a dragons den approach to three subject matter experts to determine if the project was viable to go ahead with it.

The subject matter experts approved me and the go ahead and further development of the business case was undergone. During the business, I developed my stakeholders, performed deep research on competitors and the market I was targeting. Identified the needs, the scope of the project and how I can differentiate Activity-Fest from my competitors.

Lesson Learned 1:

From this I learned something very basic but very effective, If I could reverse this step the first thing I would do after defining the problem and business need, I would firstly analyze lessons learned documents from my competitors and identify their pitfalls so I would be aware and able to overcome them early in the project.

Deliverable 2 (Planning)

Elicitation techniques

During the planning stages of the project I developed and identified the eliciting techniques that were going to be used to gather requirements

I used the brainstorm, survey, interview, prototype, interface analysis, document analysis, and requirement workshop.

I gathered my I developed questions with guidance of my supervisor, that were going to be asked during the brainstorm, survey, interview and requirement workshop. The results I would gather from them will then help me design my prototype and interface analysis.

Lesson Learned 2:

If I were going to do this, again I would not make many changes to the planning of the techniques I was going to use. My issue in the planning was trying to find available time to meet all stakeholders at a time and location that was suitable for all parties and myself. What I would do differently is start the planning phrase earlier and reach out to my stakeholders to meet with at the early stage of the project. I would also document meeting times and dates when identifying my stakeholders to ensure that they will be aware of dates and times that they

need to ensure they are available on. This would make planning of interviews, brainstorming and requirements workshop much easier and efficient.

Deliverable 3 (Executing)

Carryout eliciting techniques and document results.

During the execution of the eliciting techniques, I started with a brainstorm with stakeholders to generate requirements and features for the app.

I then released my survey to gather requirements and ideas from a wide and broad range audience. I received over 100 responses.

I carried out one on one interviews with each of my stakeholders to gather deeper insights and eliciting requirements and reasoning behind the requirements, they wanted.

I carried out a document analysis to determine areas and solutions to techniques that were used by other companies and I identified how they were going to be implemented into my document.

I developed the first prototype with requirements gathered, this was shown to my stakeholders at my requirements workshop. The requirements workshop allowed me to gather more requirements, and user stories that will be implemented in my second prototype.

I developed my second prototype incorporating the changes needed.

I developed an interface analysis to determine how the user interfaces will work and how users will interact with the app.

At the end of each technique, I gathered all the requirements gathered from each of them.

Lessons learned 3

The lessons learned from the executing stage is that it is important to be organised at all times and spend 1 – 2 hours right after each session to make sense of the notes that were written, if you leave them for a day or two the reasoning and logic behind each idea or requirements may be forgotten. Therefore, for each technique and each session if I were to do this again I would spend 1-2 hours reading over notes taken and making sense of them and document right after the session for accurate results. Secondly, I would incorporate a voice recording software that will allow me to record discussions in the interviews, requirements workshops and all meetings with stakeholders. This would ensure all information would be captured in the project.

Deliverable 4 (Monitoring)

Analyzing, Documenting and prioritizing.

During the monitoring stage I monitored all the requirements elicited, I documented all requirements into a big file with over 100 requirements, some being redundant. I removed all the documents that were mentioned more than once, in doing so I documented were all documented were gathered from.

I then prioritized them with my app sponsor using a MoSCoW solution to identify the Must have requirements, the Should have, the Could have and the Wont have requirements. I then defined the requirements into nonfunctional requirements and functional requirements. This was used to help me during the IEEE requirement specification document to ensure the most important requirements were documented into the accurate headings.

Lessons learned 4

In this section, I believe I would continue to use this process, as it was very effective. If were to do this process again, in the prioritizing stage I would break my functional requirements into suitable headings this would help in the organization of my requirements in the IEEE specification document.

Deliverable 5 (Closing)

IEEE Requirement specification document

During the closing stages of the project all project deliverables were completed the IEEE requirement specification document was complete and documented effectively. Deadlines were met and ready to be graded. All sections of the document were extensively reviewed. Corrections were made and perfected, and ready to be passed to software developer.

Lessons learned 5

From the closing stage of the project, I learned that it is important to ensure all areas are validated again for perfection. The stakeholders have an important say on the final deliverable so it is important to get their approvals before officially closing the project.

8. Evaluation

If I had more time in the project, I would...

If I had more time to do the project there are three main things that I would have completely have liked to do enhance the quality of the project.

Firstly, I would have developed a working programmed prototype. With more time, I would have increased the technical aspect of the project by creating a NetBeans prototype. This would have included all proposed functionality of the app and will allow users to interact with the prototype. This would have brought the project to the next level, as stakeholders would realize the value of the project as they will interact and experience how the app will work.

If I had more time I would have carried out more follow up interviews with stakeholder for better validations and requirements. The validation techniques I used were to list all requirements gathered from each stakeholder and email them to confirm that they were accurate and if changes needed to be made they could have been an opportunity to raise alert of the change.

I feel more a follow up interview to validate all requirements, which have been more effective, and I would have been able to interact with stakeholders to bring out more areas of improvement. The problem was there just not enough time to find dates that suited both parties for the follow up interviews.

Evaluation of techniques

Most effective techniques (Brainstorm, Interviews and requirement workshop.)

The most effective techniques I used were the interviews brainstorm and requirements workshop. The interviews brainstorm and requirements workshop involved interaction sessions, which allowed stakeholders to voice out opinions, ideas and requirements. The benefit of this is that particularly, in the requirements workshop and brainstorm a lot ideas were made from further progression from other participants. Stakeholders were able to give features and requirements and the most importantly no requirement or idea were wrong. This was extremely beneficial to elicit many requirement and ideas.

Technique used to gather the most requirements.

The techniques used to gather the most requirements were the interviews. In total, I gathered 75 requirements from the three interviews I carried out with my Software developer, App sponsor and Tourist. This was very time consuming but very effective.

Techniques gathered least amount of requirements.

During the document analysis, I gathered eight requirements. With the document analysis, I defined the scope to really focus on the GDPR requirements.

Techniques I would use again.

I would use the brainstorm, interviews, prototype, requirements workshop and interface analysis.

The brainstorm, interviews and requirement workshops allowed me to interact directly with stakeholders to elicit many and a variety of requirements. I would most definitely carry out these techniques more than once, if I were to undergo this project again.

The prototype and interface analysis were very important to allow stakeholders to visually experience how their features and requirements will operate in the app on each interface.

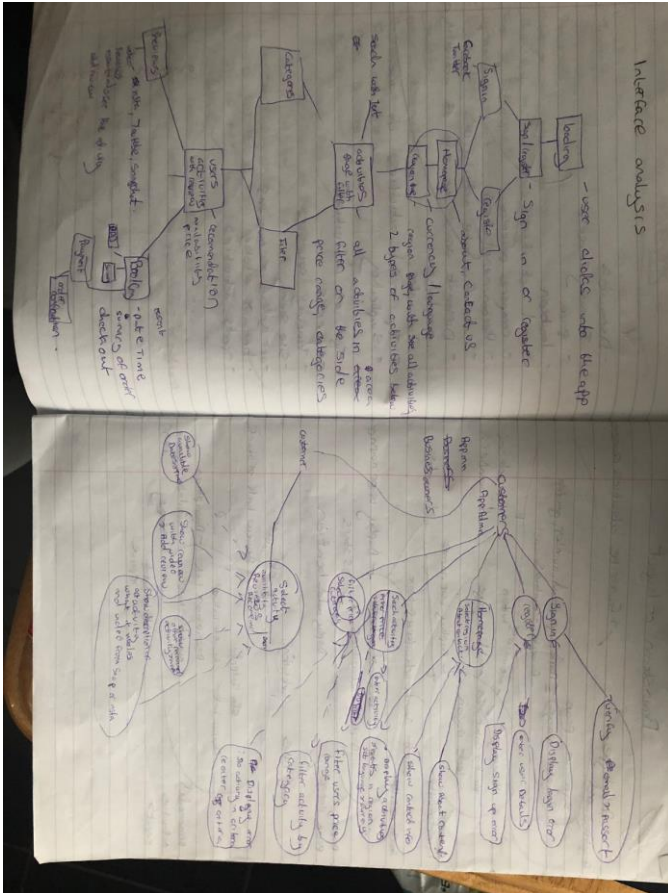
Different techniques I would use.

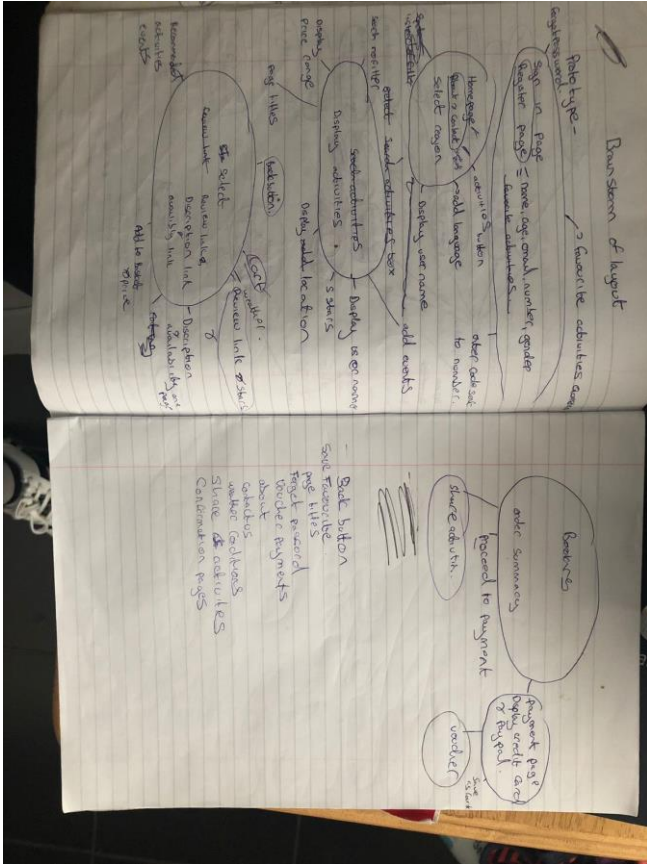
I would have started my analysis by reading through lessons learned documents in order for me to find pitfalls that I could improve on from competitors.

I would use a focus group, which involves interaction with my stakeholders to generate more requirements and gather qualitative data and information.

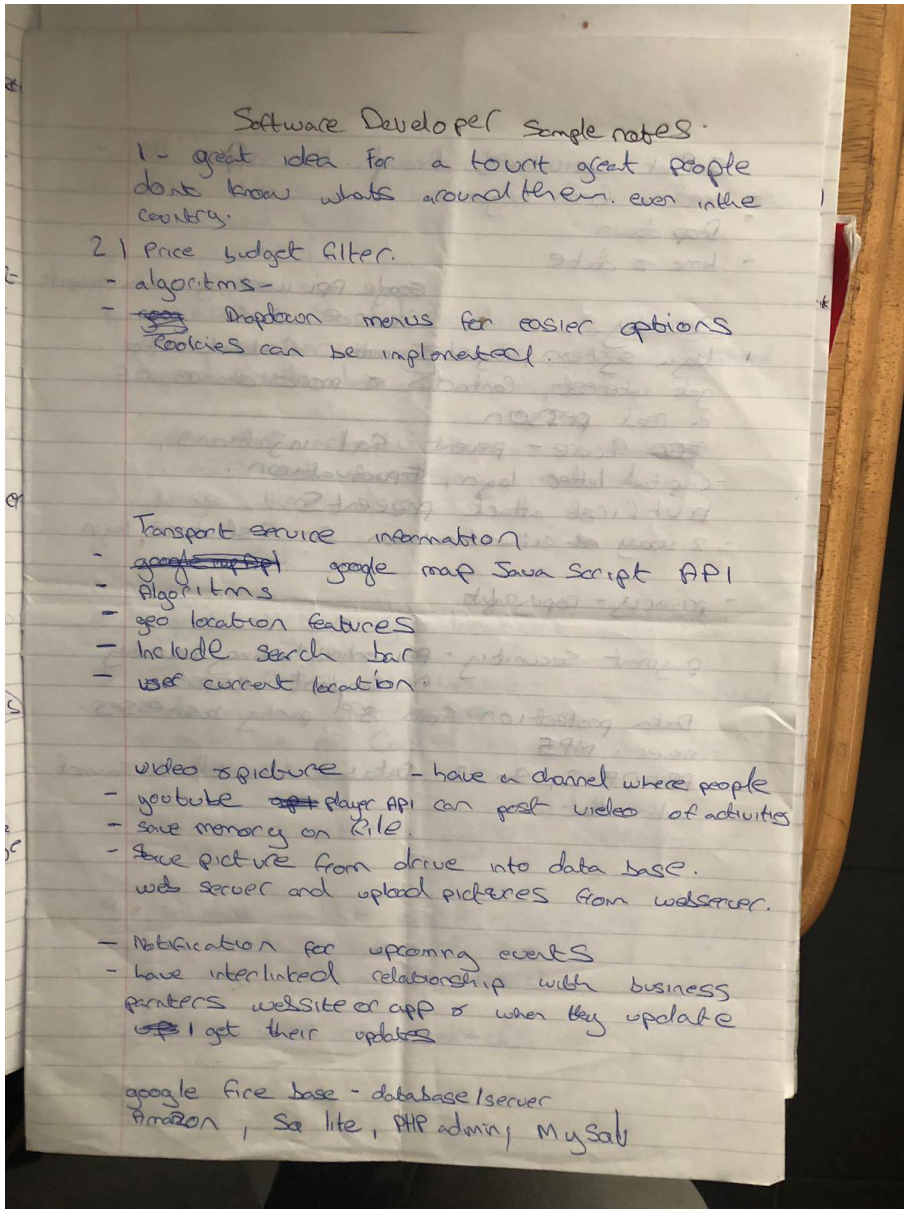
9. Others

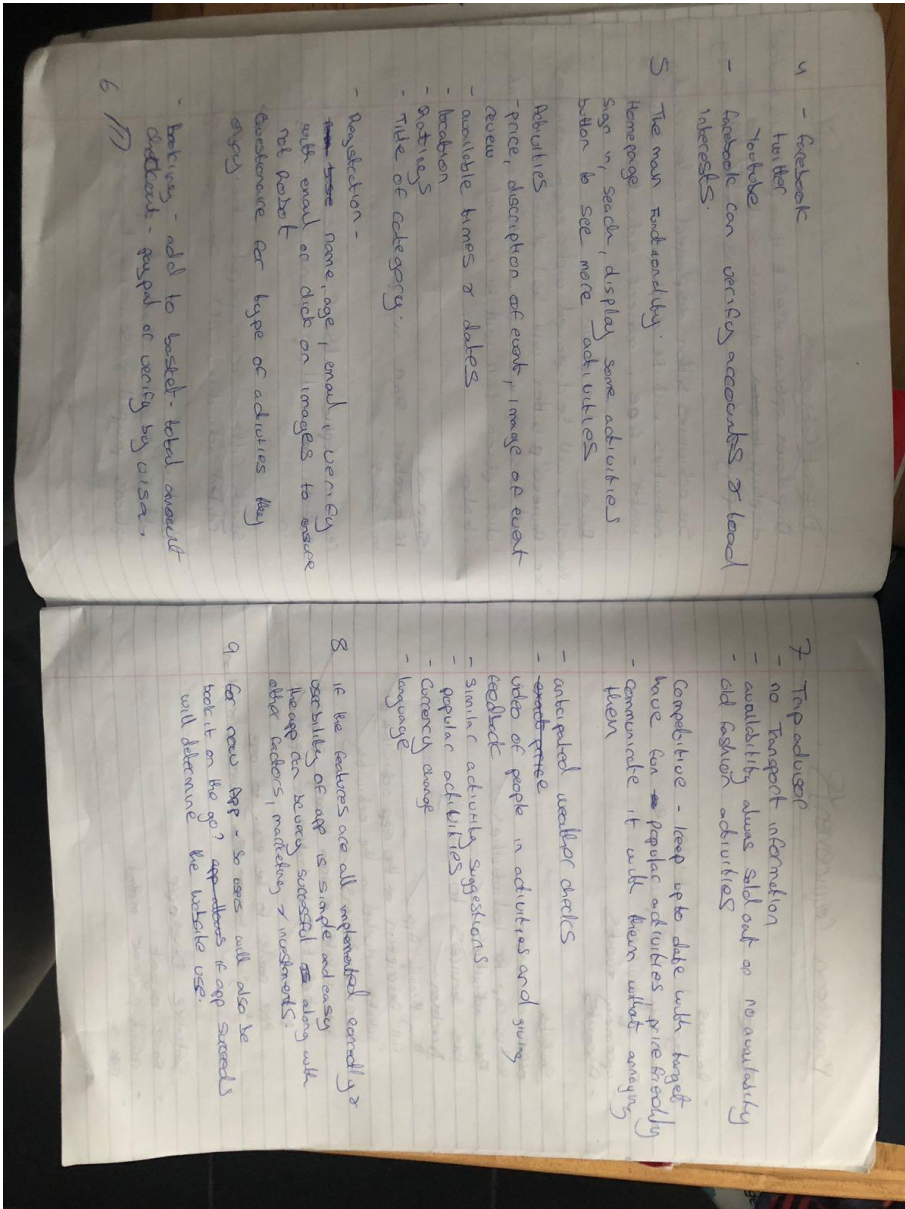
Picture of the rough work behind the Interface analysis.





Pictures of the real life notes written on the day of some of the interviews.





Activity Fest Website link: <http://activity-fest.com/>

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