

National College of Ireland
BSc in Computing
2015/2016

Neal Chadwick
x12431938
neal.chadwick@student.ncirl.ie

Chadwick's Football Blog

Technical Report



Table of Contents

Executive Summary.....	3
1 Introduction.....	4
1.1 Background	4
1.2 Aims	4
1.3 Technologies	4
1.4 Structure.....	6
2 System	8
2.1 Requirements	8
2.1.1 Functional requirements	8
2.1.2 Data requirements	8
2.1.3 User requirements	8
2.1.4 Environmental requirements	9
2.1.5 Usability requirements	9
2.2 Design and Architecture	10
2.3 Implementation	10
2.4 Testing.....	11
2.5 Graphical User Interface (GUI) Layout	11
2.6 Customer testing	14
2.7 Evaluation.....	16
3 Conclusions.....	17
4 Further development or research	19
5 References	20
6 Appendix	21
6.1 Project Proposal	21
6.2 Project Plan	24
6.3 Requirement Specification.....	25
6.4 Monthly Journals	42
6.5 Other Material Used	56

Executive Summary

The main objective of this project is to provide users with a means for discussing the hot topics in football today. Users have the ability to comment on the articles that are posted. These comments will be in the forum. The forum has the ability to sort each post into its correct topic. For example, posts about the Premier League will not appear with posts about international football. Site administrators will have the ability to delete posts if they are deemed to be offensive, racist etc. In order to post a comment, users will have to set up an account on the forum. Users can sign in with their social media accounts from various social networks including Facebook, Twitter and Google Plus.

1 Introduction

1.1 Background

I chose to do my project on a football blog website because I am passionate about football. I feel that users will enjoy my forum more than the other forums that I saw when I was doing my research. In these forums, users see every comment made by other users whereas in my forum, users will only see comments that are about the topic that they want to comment on. I believe that this gives my forum an advantage over the other forums that do not have this capability. I think that the old way of commenting in a forum is outdated and that my way is more dynamic.

Given that I have an interest in many sports, I felt that doing my project on something sports related was of paramount importance. I think that, in the future, my project could be used in a real world situation.

1.2 Aims

One of the aims of my project is to create a football blog site that contains a forum that has the ability to sort forum posts into their correct topic. For example, a post about the Premier League should be displayed in the Premier League topic and a post about international football should be displayed in the international football topic. The website part of the site aims to allow users to view the blogs that are posted by the websites administrators. The forum part of the site aims to allow users to comment on the hot topics in football. Users must be authenticated in order to post their comments.

1.3 Technologies

The website was developed using HTML5 and CSS3. The forum was embedded using Tal.ki Embeddable Forums. The map with the markers on each stadium in the Airtricity League Premier Division and the Barclays Premier League and the map showing where Chadwick's Football Blog is located were created and embedded using Google Maps.

HTML5: HTML5 is a revised version of the HTML language. HTML is the standard programming language that is used for describing the appearance and contents of web pages.

("What Is HTML5? - Definition From Whatis.Com")

HTML5 contributes greatly to my project because it allows the website to be dynamic. I found the code to be easy to navigate through. This meant that valuable time was not wasted navigating my way through the code in order to edit one part of the code.

CSS3: CSS3 is a version of the Cascading Style Sheets language. It aims to extend CSS2. It brings new features, such as transitions or animations, rounded corners, shadows and gradients. New layouts like grid layouts, multi-columns and flexible boxes are also included. The experimental parts are vendor-prefixed. These should either be used very cautiously or be completely avoided in production environments. This is because both their semantics and syntax can be changed in the future.

("CSS3")

CSS3 contributes greatly to my project because it gives me a wider range of designs to use in order to enhance the look and feel of my project.

Tal.ki Embeddable Forums: The forum was embedded using Tal.ki Embeddable Forums. I found embedding the forum using Tal.ki was the easiest and simplest way to embed the forum into my project. The forum provides plenty of ways for people to sign up/sign in and it is very easy to use.

The Tal.ki Embeddable Forum that I have embedded into my project contributes a lot to my project, mainly because the forum is the main part of the project. It allows me to check the members list so I can see who is a member. I can also edit my own profile. As the forum administrator, I can ban members, promote members to moderators, delete members, change the name and description of the topics and decide who can access the topic.

Google Maps: Google Maps provides information about geographical regions and sites worldwide. The information provided is incredibly detailed. Google Maps is a web-based service. Satellite and aerial views of locations are also provided. This is in addition to road maps which are more conventional. Google Maps uses vehicles to take photographs of some cities. In these cities the street views are comprised of the photographs that were taken in the vehicles.

("What Is Google Maps? - Definition From Whatis.Com")

Google Maps is an important part of the project as it contributes an important feature of the project in the Stadium Map. The functionality that Google Maps provides allowed me to create the map very quickly and in great detail. The location map that shows users where Chadwick's Football Blog is located is also an important feature as it allows users to find out where Chadwick's Football Blog is located in relation to things like bus routes and train stations.

1.4 Structure

The first section provides the user with a general overview of what the project is. It describes what the background of the project is, what its aims are and what technologies were used to create the project.

The second section describes the project requirements (these include the functional requirements, data requirements, user requirements, environmental requirements and usability requirements), how the project was designed, how the project was implemented, how I tested the project, screenshots of the GUI, customer testing (this includes comments and ratings from each customer) and an explanation as to how the system was evaluated.

The third section describes the conclusions that were drawn from the project. Included in this was a list of the advantages and disadvantages of the project and a list of the opportunities for and threats to the project. I also included a couple of my thoughts on the experience of doing the project.

The fourth section is where I have detailed the areas which I believe the project can develop into.

The fifth section contains all of the references to websites that I have used to help me write this report.

The sixth and final section contains the appendices to this document such as the original project proposal, the project plan, all of the monthly reflective journals and any other materials that were used.

2 System

2.1 Requirements

2.1.1 Functional requirements

User requirements:

- View Articles
- Register to join forum
- Users must be authenticated in order to comment
- Manage forum posts
- Locate stadiums on the stadium map
- Visit blog's social media pages

The user is required to register to the forum so some of their personal details are required to progress. They can register and login via various social media sites such as Facebook or Google Plus. To verify their account the user will be sent an email from the website with a link in it which they will have to click in order to verify their account. Once the user clicks on the link their account will be verified.

Below is a list of requirements that are required for the user to be registered using Facebook.

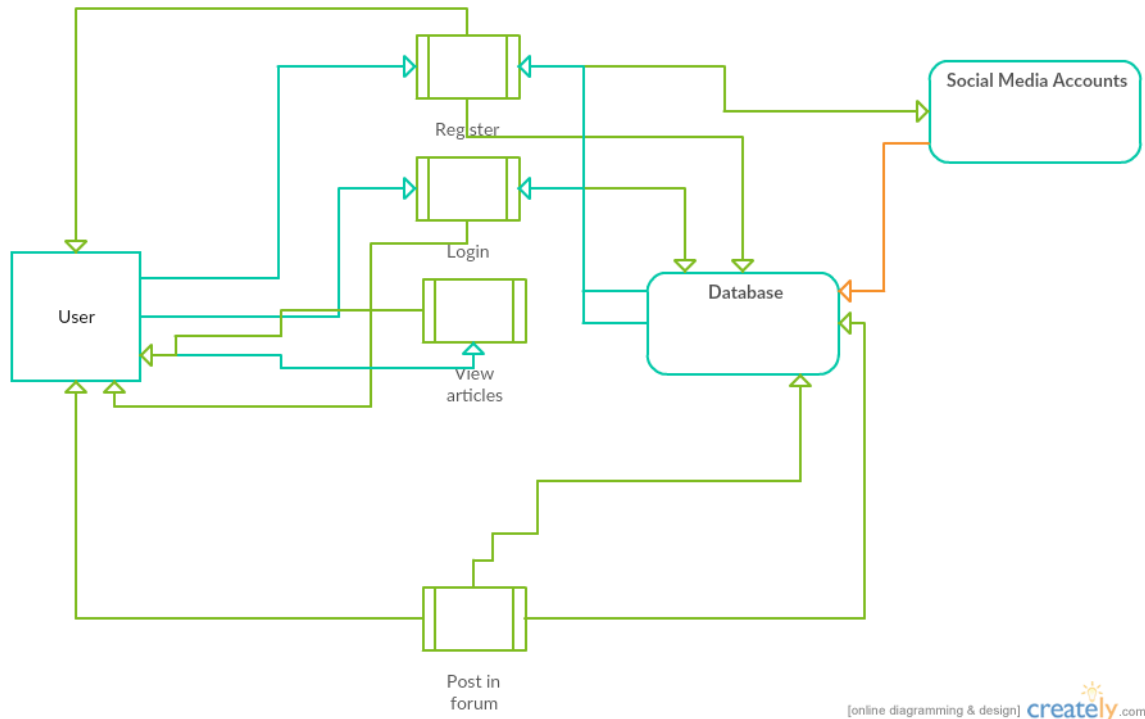
- Click "Sign In with Facebook" button located at the top left-hand corner of the page.
- Click "Sign In as 'Your Name'".

2.1.2 Data requirements

All data that is entered should be in a way that other users will be able to understand.

2.1.3 User requirements

User requirements are set out in the data flow diagram below.



2.1.4 Environmental requirements

The website portion of the project requires a suitable platform on which to run. The ideal environment would contain a web browser capable of processing HTML5, CSS3, Google Maps and a Tal.ki Embeddable Forum.

2.1.5 Usability requirements

The major usability requirement is that the website is user friendly. To ensure this, the website has been designed in such a way that first time users will be able to find it easy to navigate. A navigation menu is located at the top and on the left hand side of each page. The page that the user is on will be highlighted in yellow.

Changes Made to Original Requirements Specification:

- “Log in to/out of forum” changed to “Users must be authenticated in order to comment” because there was too much of a focus on login in the original requirements document.
- “Share articles on social media” changed to “Locate stadiums on stadium map” because the option to share articles is not available whereas users can view information about stadiums in the stadium map.

- The list of requirements for login using Facebook was removed because there was too much focus on login in the original requirements document.
- I updated the data flow diagram to reflect the changes made to the project.

2.2 Design and Architecture

The website was built using HTML5, CSS3, Tal.ki Embeddable Forums and Google Maps. I chose these technologies because it was my belief that they would produce an application that looked good and worked better than using alternative technologies.

The CSS was designed in order to ensure that the website was easy on the eye for the users, that the colours didn't clash and the text was in the right position on the page.

2.3 Implementation

Certain aspects of the project were difficult to implement. One of the most challenging was the gallery. The gallery is where users can view the pictures that are put on the website by the site administrator. When users hover over a picture the name of the picture and a view button will pop up. Users can click the view button in order to view a larger version of the image and they can also scroll through the other pictures that are in the gallery if they click on the view button.

The problem that I encountered was that I could not get all of the images to line up correctly. For example, there might be three pictures on one row and one picture on the row underneath.

Below is the code used for one image. The other images used the same code.

```
<div class="col-md-4 cate-grid grid">
    <figure>
        
        <figcaption>
```

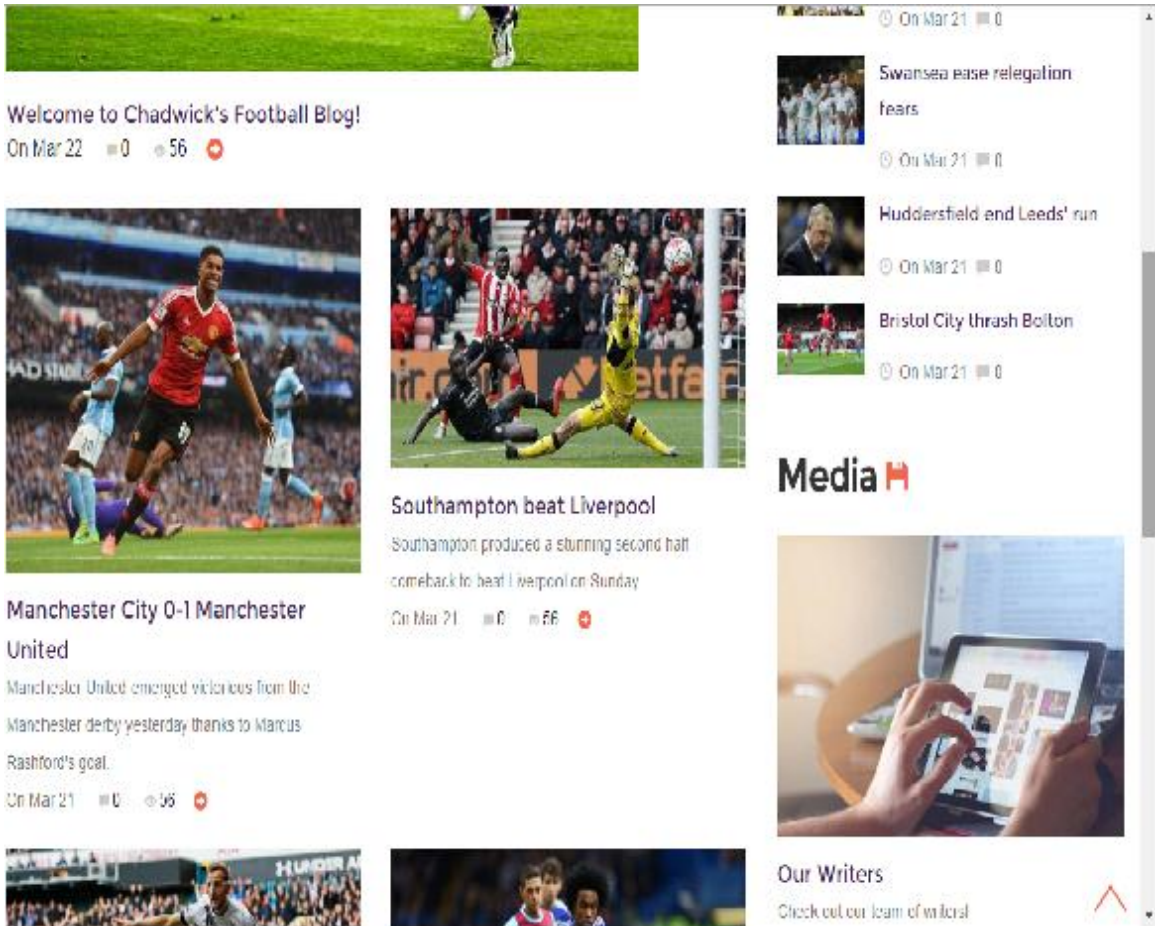
```
<h3>Premier League Logo</h3>
<a      class="example-image-link"      href="http://
cdn1.bloquin.com/wp-content/uploads/sites/154/2015/08/Premier-League-
Logo.jpg" data-lightbox="example-1" data-title="Premier League Logo">VIEW</a>
</figcaption>
</figure>
</div>
```

2.4 Testing

To test the project, I asked a few people with varying degrees of programming experience to interact with the website and the forum. All users successfully performed the tasks I set out for them. They gave me valuable feedback about the forum and the website in general and I have implemented a number of the changes that were recommended to me from the feedback I received during testing.

2.5 Graphical User Interface (GUI) Layout

The website interacts with users by using a Graphical User Interface (GUI). The website's interactions are carried out using scrolling and mouse clicks.



Welcome to Chadwick's Football Blog!
On Mar 22 0 56

Manchester City 0-1 Manchester United
Manchester United emerged victorious from the Manchester derby yesterday thanks to Marcus Rashford's goal.
On Mar 21 0 56

Southampton beat Liverpool
Southampton produced a stunning second half comeback to beat Liverpool on Sunday
On Mar 21 0 56

Swansea ease relegation fears
On Mar 21 0

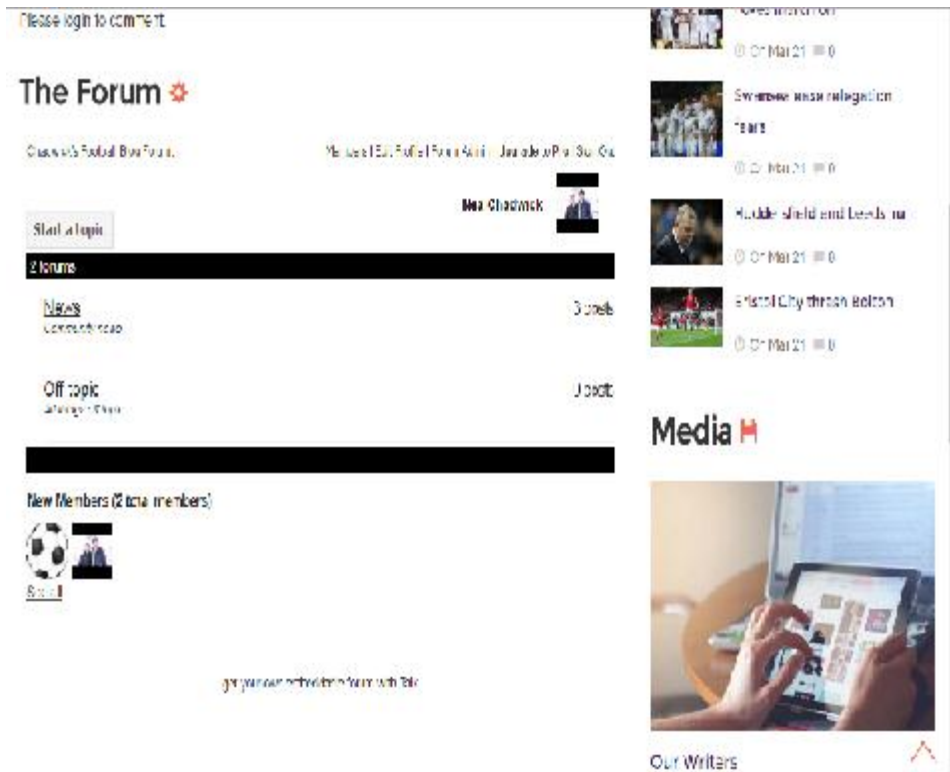
Huddersfield end Leeds' run
On Mar 21 0

Bristol City thrash Bolton
On Mar 21 0

Media H

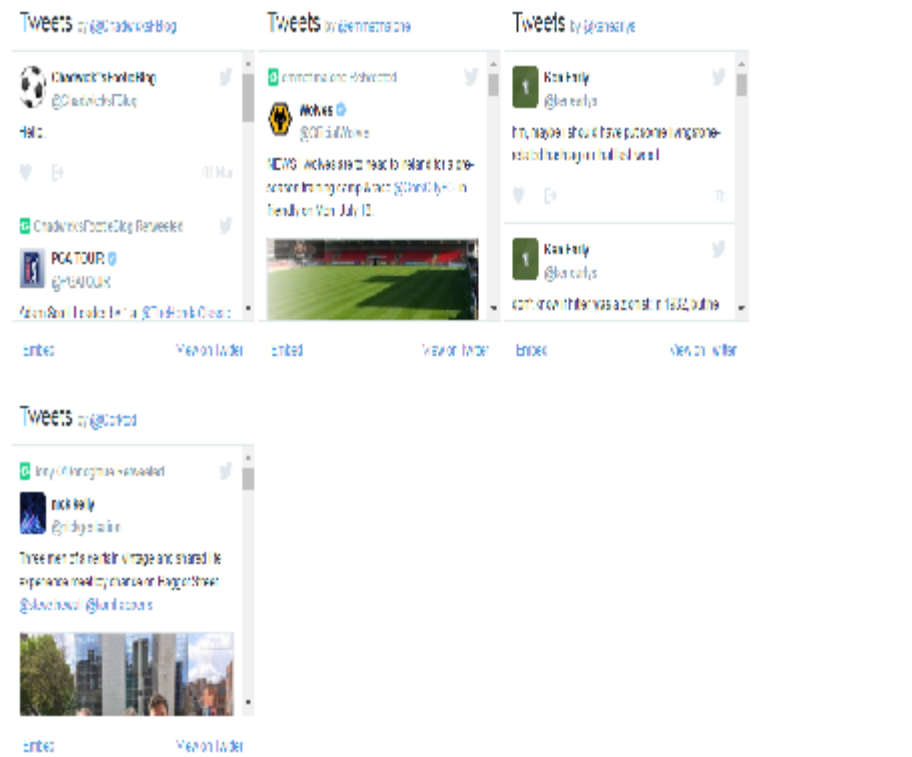
Our Writers
Check out our team of writers

This is a screenshot of the homepage. Contained in this picture are some of the blog posts and on the right hand side of the page we can see some older blog posts.



This is a screenshot of the forum. In the forum we can see that there are two topics available. At the top of the forum we can see the active member and their profile picture and located at the bottom of the forum are the forum's members.

Check out tweets from ourselves and from some of the leading Irish football journalists.



This is a screenshot of the Twitter page. The Twitter page contains Twitter widgets which show the Twitter timeline from Chadwick's Football Blog's Twitter account and the Twitter timeline of some of the leading Irish football journalists.

2.6 Customer testing

To test the project, I asked a few people to interact with the website and forum and to give me feedback on what they thought of both the website and the forum. I gave them some tasks to do and these tasks were successfully performed.

Comments from tester 1:

- Fix broken links
- Don't hide good stuff under name that isn't related
- More clickbait.
- Too many clicks too get into forum.
- Forum should be earlier in the webpage.

- Promote cool stuff.
- Personalise it.
- Not enough pictures in the gallery. Gallery should be updated.

Comments from tester 2:

- Excellent site load time.
- Good text-to-background contrast.
- Forum link is sometimes broken.
- News feed is unnecessary and it is static not dynamic so it's not updating to current news.
- Do not understand the purpose of the widgets.
- Some links are broken.
- Make the forum the main page as it is your main focus.
- Make the forum simple. It should be eye-catching.
- More explanation about the forum as that is where you want people to focus on.

Comments from tester 3:

- Layout is nice.
- Nice menu bar in dark purple.
- Divs are set well.
- Navigation is consistent.
- The setup is good.
- The colours work well. They're not overdone.
- Forum is good. Everything that's needed is there. For example, social media login and registration.

Tester ratings:

Tester 1:

- Overall rating: 4-5/10

Tester 2:

- Site load time: 5/5
- Text-to-background contrast: 3/5
- Site logo is prominently placed: 4/5
- Homepage is digestible in 5 seconds: 3/5
- Clear path to forum information: 3/5
- Clear path to contact information: 3/5
- Main navigation is easily identifiable: 5/5
- Navigation labels are clear and concise: 5/5
- Number of buttons/links is reasonable: 3/5
- Site logo is linked to home page: 5/5
- Links are consistent and easy to identify: 3/5
- Site search is easy to access: No rating
- Major headings are clear and descriptive: 4/5
- Critical content is above the “fold”: 2/5
- Main page is concise & explanatory: 3/5
- URLs are meaningful and user friendly: 5/5
- HTML page titles are explanatory: 5/5

Tester 3:

- Overall rating: 8.5/10

2.7 Evaluation

The website has been regularly evaluated to ensure that it is running as well as it can and that any errors that are found are fixed. In the initial stages of development the website will be quite small in scale. After some time I plan to update the website in order to make users more interested in the website.

I can make sure that the forum works properly by entering a message into it and monitoring where the message goes. Any errors that occur in the forum will be fixed.

3 Conclusions

Describe the advantages/disadvantages, opportunities and limits of the project.

Advantages:

- The website layout is nice and easy on the eye.
- My project allows users to view the blog posts and then comment in the forum.
- The map that is located in the “Contact” page, allows users to view information about the clubs in the Airtricity League Premier Division and the Barclays Premier League. Included in this information is the capacity of the stadium, the name of the stadium and some notes on how the team is doing this season.

Disadvantages:

- The main disadvantage is that some of the pages are slow to load.
- The photo slider on the home, about and forum pages resizes on each image. This causes the items underneath the slider to move up and down.
- The bar on the bottom of the page that contains the email address and the contact details does not stay on the bottom of the pages.

Opportunities:

- I think that my project has a good opportunity to progress further in the future.
- There is an opportunity to branch the map in the “Contact” page into other leagues around the world like Serie A, La Liga and the Bundesliga.

Limits:

- The project is limited in where it can develop into because of the sheer volume of sport/football blogs that are out there.
- Limited on the amount of time that can be dedicated to the project.
- Could be limited in the amount of comments that can be stored in the forum.

Overall I have enjoyed working on this project, even though it was challenging. My attempts to overcome these challenges have increased my knowledge of the languages used. I now have a better understanding of how to deal with any errors that arise while coding.

4 Further development or research

Chadwick's Football Blog could develop into a much bigger innovation that people will religiously use. This can only happen if more resources become available.

A daily podcast could be launched. In this podcast the website's writers could give their own take on the football news of the day. Some guests from the world of football journalism could be invited onto the podcast. The intention would be for the podcast to be light-hearted and relaxed and to provide users with some entertainment whenever they listen to it.

The map in the "Contact" page could be extended to include other leagues from around the world such as La Liga, the Bundesliga and Serie A.

In the future, the website could be developed into an app. This would allow users to access the website on-the-go. The app would be free to download and would be available to both Android and iPhone users. However, the app could only be developed if more resources become available.

5 References

"What Is HTML5? - Definition From Whatis.Com". SearchSOA. N.p., 2016. Web. 9 May 2016.

"CSS3". Mozilla Developer Network. N.p., 2016. Web. 9 May 2016.

"What Is Google Maps? - Definition From Whatis.Com". WhatIs.com. N.p., 2016. Web. 9 May 2016.

6 Appendix

6.1 *Project Proposal*

Project Proposal

Chadwick's Sports Blog

Name: Neal Chadwick

Student Number: x12431938

Email Address: neal.chadwick@student.ncirl.ie

Degree Programme Name: BSc (Hons) in Computing

Specialisation: Networking and Mobile Technologies

Date : 02/10/15

Objectives

The objective of my project is to provide users with an alternative opinion on the hot topics in sport. The application should look attractive to the user with an interface that is both easy to navigate and pleasing on the eye. The application will retrieve the latest articles from its website and display them so that the user can view them and express their views on them in a forum.

The posts into the forum will be analysed and sorted into sports e.g. soccer, rugby etc. so that users can see posts that are specific to the sports they are interested in.

The app should provide a means of viewing articles from its website. This, coupled with the ability for users to comment in the forum, should be the primary duty of my app.

Additionally, my app should allow the user to search for articles and to create and add to a favourites list. Users can also share articles on social media so that other people can view and enjoy them. Users will be able to upload pictures to the fan gallery by emailing their pictures to the email address that is given in the contact tab on the website.

An online store will be incorporated into the site so that users can buy sportswear.

Facebook and Twitter pages will be set up so that my app can reach a wider customer base. Having these pages will allow me to promote the articles on my app to a wider audience. It will also allow me to promote any deals on products that are in the online store. Facebook and Twitter APIs will be added so that users can log in to the app using their Facebook or Twitter profiles.

Background

I have seen a noticeable increase in the amount of blogs that people are setting up. A lot of these tend to be either opinion blogs where the author of the article gives their opinion on whatever is newsworthy in sport in that particular week or news blogs where the author of the article writes things like match reports and news reports e.g. the Ireland starting team for their match that is happening on the weekend. My blog will be a mix of both opinion blogs and news blogs.

All of my family love sports and we often get into discussions about the sports that we love. A few years ago, my family spoke to each other about setting up a sports blog so that our views could be heard. I think it would be good for me to base my project on a sports blog as I am a keen sports enthusiast and I think I could offer something different to the sports blog market.

I hope to incorporate stats into my blogs in particular when comparing either a number of players or teams against each other. This will allow the user to see what I am basing my articles on.

Technical Approach

I feel the main research to be carried out will be to survey various people to get their opinions about what they want to see in blogs and any concerns they may have about my app. I will have appropriate questions for each individual and I hope to gain some valuable feedback in the process.

Requirements:

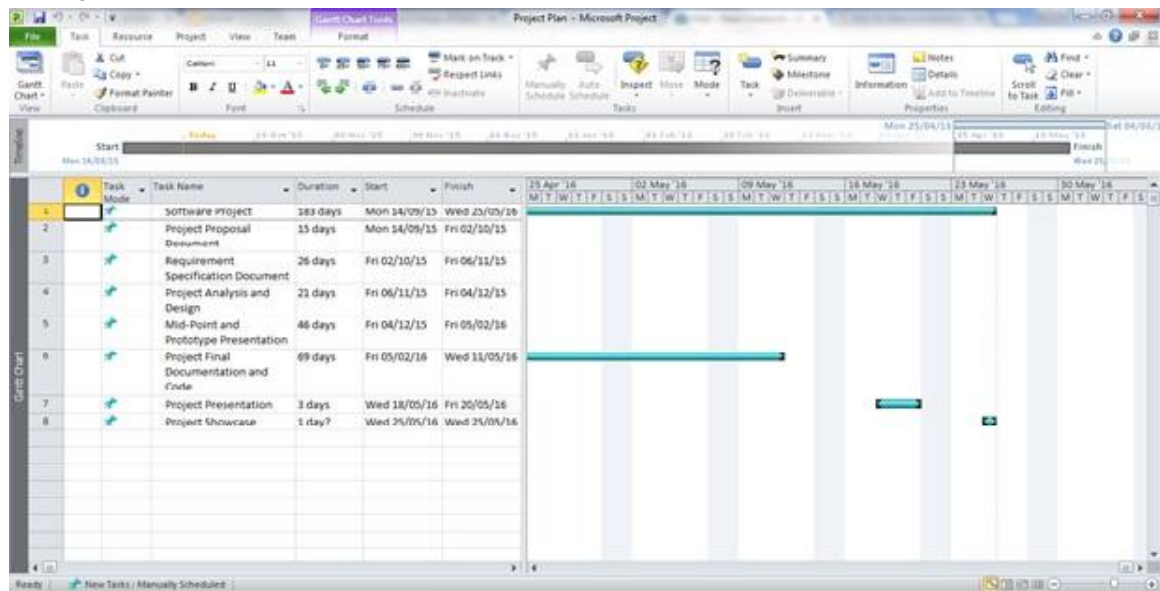
- A smart device such as an iPhone, Android, tablet etc. is required.
- A username and password is required in order to post in the forum.
- Either Wi-Fi connection or 4g/3g is required to view the articles.

The user will need an internet connection or 4g/3g for this app to work properly.

Special resources required

No special resources are required.

Project Plan



Technical Details

To implement the website, I have used html. I used html because I feel that this is the programming language that I am best equipped to use.

Users will be required to login in order to post on the forum.

Users will be able to share articles on Facebook and Twitter by clicking the Facebook button if they want to share an article on Facebook or the Twitter button if they want to share an article on Twitter. These will be located at the bottom of each article.

Users will also be able to visit my blog's Facebook and Twitter pages by clicking the Facebook button if they want to visit the Facebook page or the Twitter button if they want to visit the Twitter page.

Users will also be able to log in to the site using Facebook and Twitter. Both the Facebook and Twitter APIs will be added so that users can log in this way.

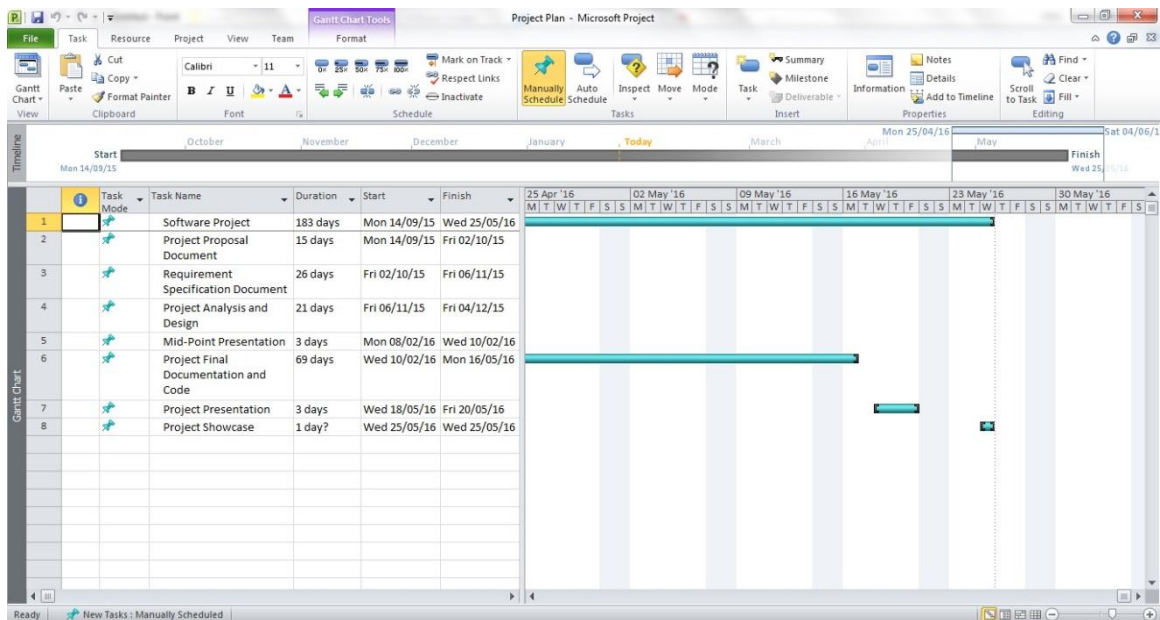
Evaluation

I will regularly evaluate how the system and app are running. The database will be tested by entering data and seeing if it goes where it should be going. Once the app is up and running and the database is connected, I will be able to connect my iPhone and test if the information from the database is showing up on the app. Once they are connected, more information will be put into the database. I will continue to monitor it to see if the information is transferring.

I will then be able to system test. I will do this by getting some volunteers to test the app and give me their feedback.

Name: Neal Chadwick Date: 02/10/15

6.2 Project Plan



6.3 Requirement Specification

HDSSD

Requirements Specification (RS)

Chadwick's Sports Blog App

Neal Chadwick
10/12/2015

Requirements Specification (RS)

Document Control

Revision History

Date	Version	Scope of Activity	Prepared	Reviewed	Approved
12/10/2015	1	Create	NC		
28/10/2015	2	Update	NC		
29/10/2015	3	Update	NC		
30/10/2015	4	Update	NC		
02/11/2015	5	Update	NC		
03/11/2015	6	Update	NC		
11/11/2015	7	Update	NC		
17/11/2015	8	Update	NC		
23/11/2015	9	Update	NC		

Distribution List

Name	Title	Version
Eamon Nolan	Lecturer	
Neal Chadwick	Student	

Related Documents

Title	Comments
Title of Use Case Model	
Title of Use Case Description	

Table of Contents

1	Introduction	28
1.1	Purpose	28
1.2	Project Scope	28
1.3	Definitions, Acronyms, and Abbreviations	29
2	User Requirements Definition	29
3	Requirements Specification	30
3.1	Functional requirements	30
3.1.1	Use Case Diagram	31
3.1.2	Requirement 1 <name of requirement in a few words>	31
3.1.3	Requirement 2 <name of requirement in a few words>	34
3.2	Non-Functional Requirements	36
3.2.1	Performance/Response time requirement	36
3.2.2	Availability requirement	37
3.2.3	Recover requirement	37
3.2.4	Robustness requirement	37
3.2.5	Security requirement	37
3.2.6	Reliability requirement	37
3.2.7	Maintainability requirement	37
3.2.8	Portability requirement	37
3.2.9	Extendibility requirement	38
3.2.10	Reusability requirement	38
3.2.11	Resource utilization requirement	38
4	GUI	38
5	System Architecture	42
6	System evolution	42

Introduction

I intend to develop a sports blog mobile app that can be downloaded and used by members of the public. I intend to call the app “Chadwick’s Sports Blog”. In my app, users will be informed of the latest goings-on in the world of sport, both here in Ireland and all over the world. I intend to cover all sports from soccer and rugby to badminton and lacrosse will be covered. Users will be able to view blog posts, upload pictures, buy products from the store and post their views on what is going on in the world of sport on the forum. Users will also be able to connect with my app’s Facebook and Twitter pages by clicking on their respective icons which are located on the homepage. Users will also be able to share blog posts on Facebook and Twitter by clicking on their respective icons and then clicking share when the prompt appears.

Purpose

The purpose of this document is to set out the requirements for the development of my app.

The intended customers are the general public who want to develop an interest in sport or who have an interest in a sport of sports and want to keep up-to-date with the news in those sports. I expect the users of the app to be 18-34 in age in the main but I am hoping that I can attract people of all ages and age groups. This app will allow the user to find the latest blog posts easily and quickly and they will also get the relevant information that they are looking for when they click on a blog. It will also give the users a chance to purchase products from the store.

Project Scope

The scope of the project is to develop an app which will be user friendly. The system shall have functionality for the users if they need to get the relevant information that they require. My goal is to come up with a structured plan to develop this application from the embryonic stages to completion. The resources that I have at my disposal are PHP, Ajax, JavaScript and MySQL for our coding

languages and I also have websites like Codecademy and W3schools where I can source some of the coding if I am having any difficulties. I do not have to be concerned about a budget at the moment as the project does not require me to invest any money, this may or may not change in the future. The timeframe that I have to complete the project in is quite big but I cannot afford to waste any time on any part of the project as I have lots to do in the project. Because this is the first time I have done a project as large as this one on my own I have to be prudent on the amount of time I spend on each part of the project.

Definitions, Acronyms, and Abbreviations

AD Another Definition

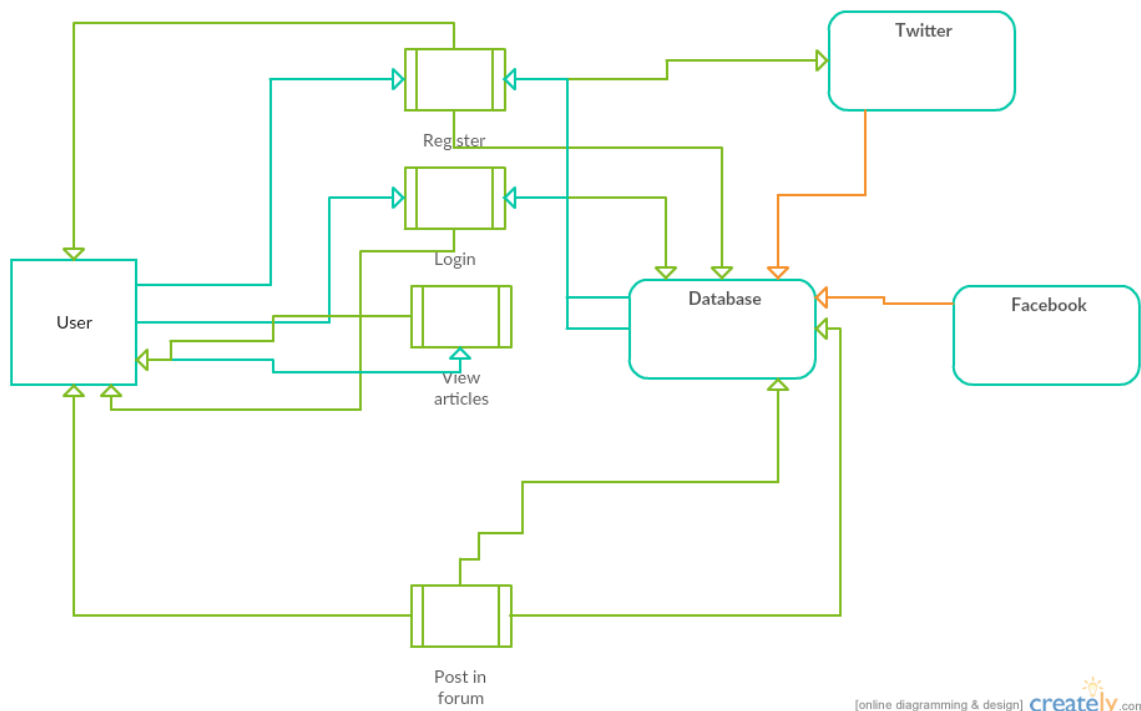
HTML Hypertext Markup Language

API Application Programming Interface

CSS Cascading Style Sheet

User Requirements Definition

User requirements are set out in the data flow diagram below.



Requirements Specification

All requirements should be verifiable. For example, experienced controllers shall be able to use all the system functions after a total of two hours training. After this training, the average number of errors made by experienced users shall not exceed two per day.

There is no training needed as I am doing this as an app so it is user friendly. Site administration will be responsible for the running and upkeep and checking registration/comments on the forum etc so this job does not require a lot of training. It's possible that a one day training course would be beneficial, for anyone with a degree with less qualifications the training may take longer but should take no longer than one week.

Functional requirements

User requirements:

- View Articles
- Register to join forum
- Log in to/log out of forum
- Manage forum posts
- Share articles on social media
- Visit blog's social media pages

The user is required to register to the forum so some of their personal details are required to progress. They can register via various social media accounts e.g. Facebook or Google+. To verify their account the user will be sent an email from the website with a link in it which they will have to click in order to verify their account. Once the user clicks on the link their account will be verified.

Below is a list of requirements that are required for the user to be registered using Facebook.

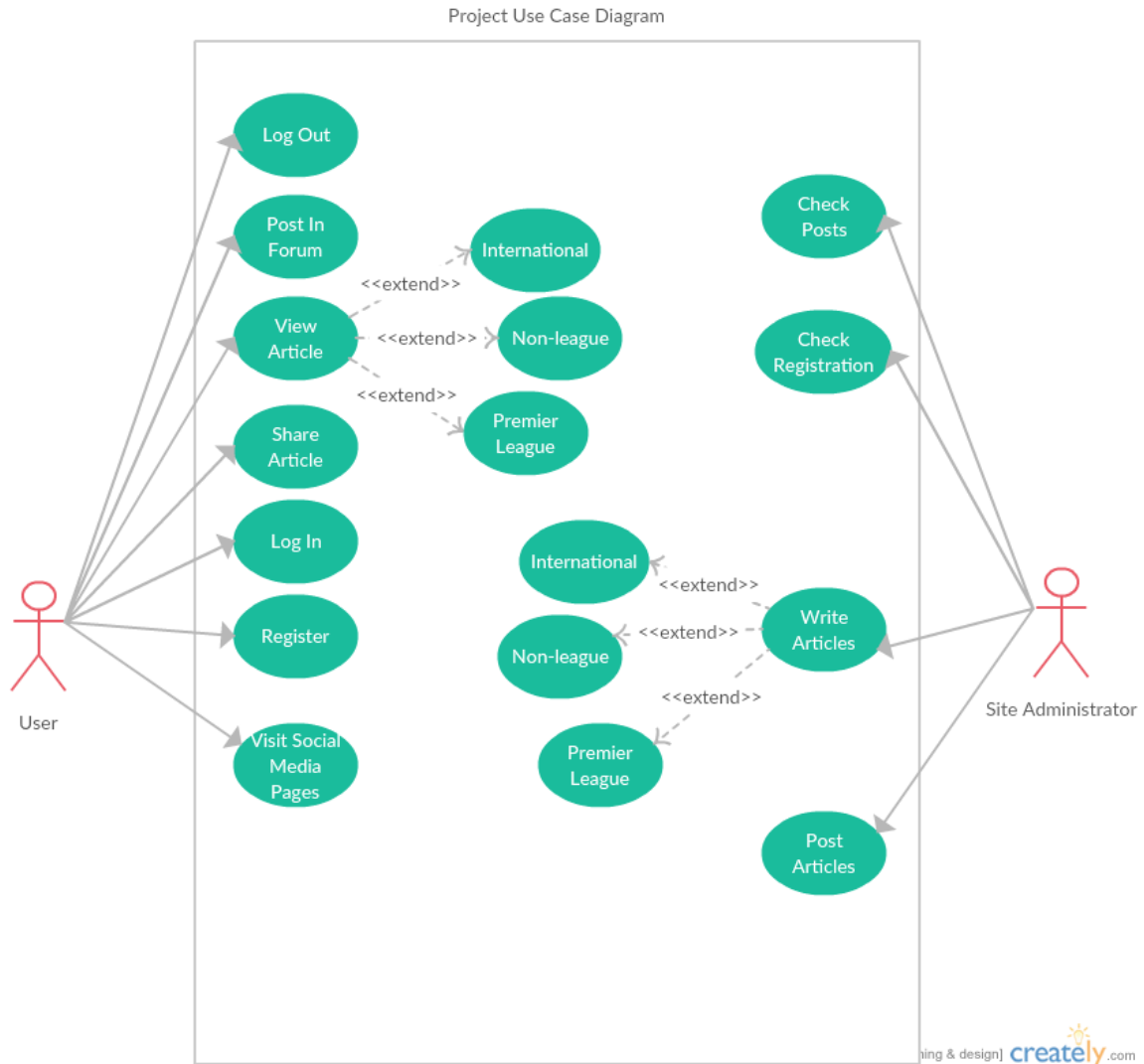
- Click "Sign In with Facebook" button located at the top left-hand corner of the page.
- Click "Sign In as 'Your Name'".

Below is list of user requirements for login using Facebook:

- Click “Sign In with Facebook” button located at the top left-hand corner of the page.
- Click “Sign In as ‘Your Name’”.

Use Case Diagram

This use case provides an overview of the functional requirements.



Requirement 1 <The System shall allow the user to create an account>

Requirement 1: The System shall allow the user to create an account.

Description & Priority

The system will provide a registration capability that allows the user to create an account which is used to access a secure area of the system.

Priority: 1

Related Requirements: None

Use Case

Scope

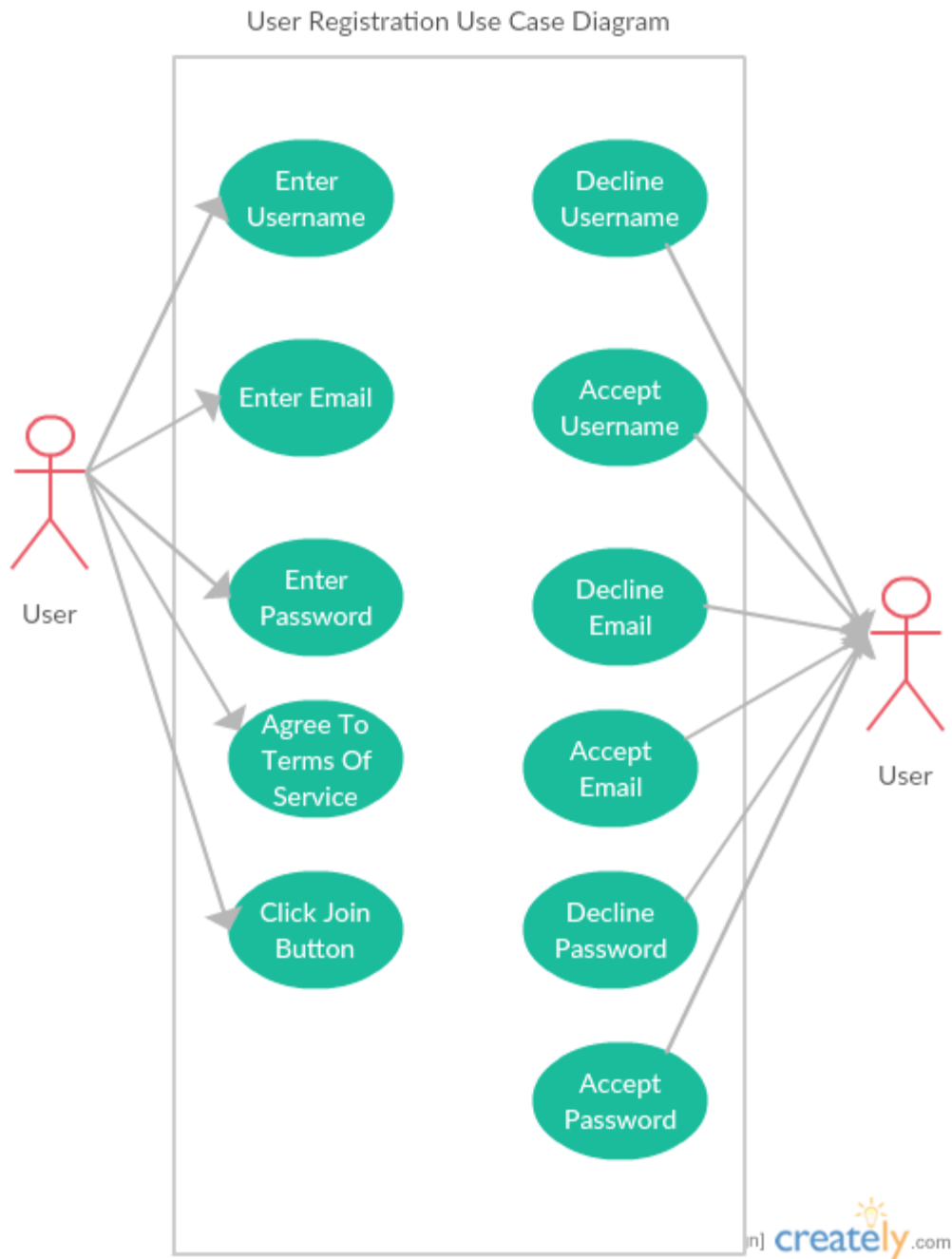
The scope of this use case is to show what happens when the user enters their username more clearly.

Description

This use case describes the breakdown of the requirements for the user to enter their username.

Use Case Diagram

This use case is a breakdown of the requirements for the user to enter their username.



Flow Description

Precondition

The system is in initialisation mode when the user is starts entering their username.

Activation

The use case starts when the user starts entering their username.

Main flow

1. When the user starts entering their username, the system initialises.
2. The user enters their username.
3. The system determines whether the user has entered their username correctly.

Alternate flow

1. If the user has not entered their username successfully, the use case will end.

Exceptional flow

1. The system finds out the username that has been entered is already taken.
2. The system informs the user that their username has already been taken.
3. The use case ends.

Termination

The system presents the next use case.

Post condition

The system will go into the post condition once the user has entered their username correctly.

Requirement 2 <The user shall have to Login>

Requirement 2: The user shall have to Login.

Description & Priority

The system will provide a login capability that allows the user to log in to an account which is used to access a secure area of the system.

Priority 1:

Related Requirements: None

Use Case

Scope

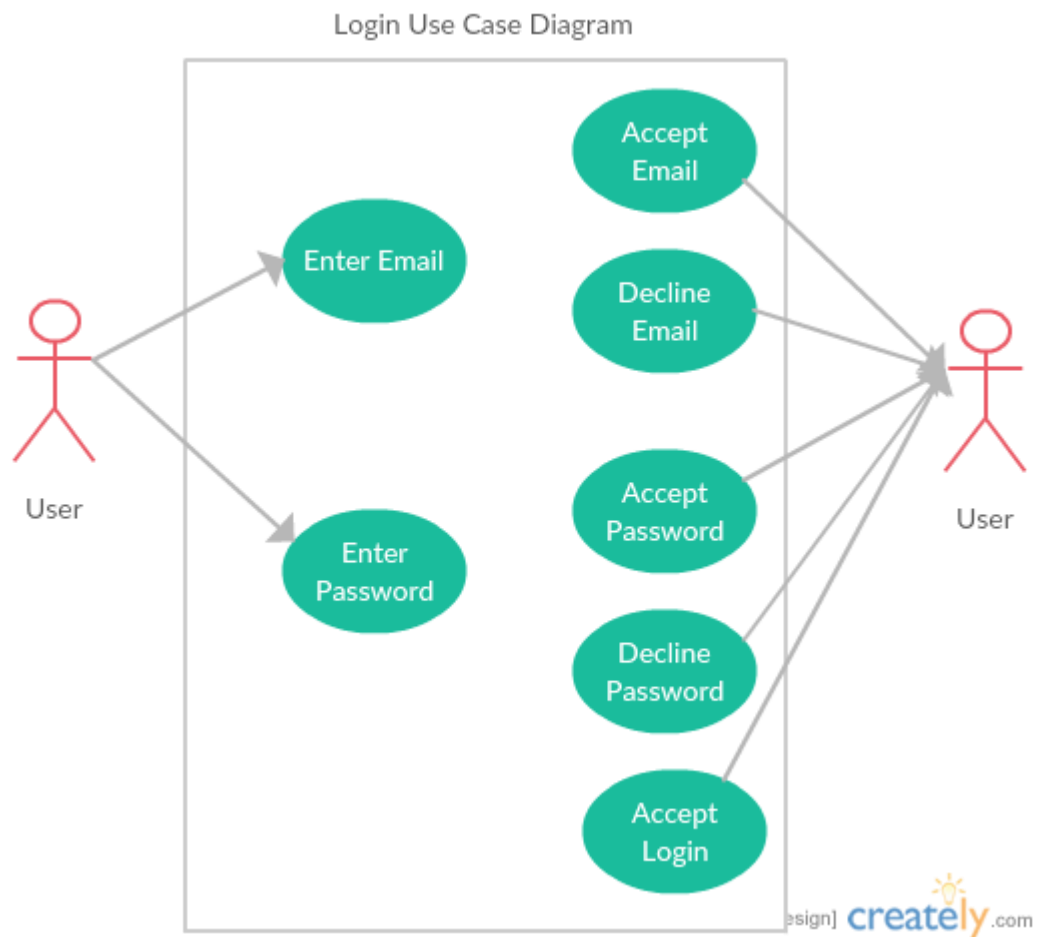
The scope of this use case is to show what happens when the user enters their email more clearly.

Description

This use case describes the breakdown of the requirements for the user to enter their email.

Use Case Diagram

This use case is a breakdown of the requirements for the user to enter their email.



Flow Description

Precondition

The system is in initialisation mode when the user starts entering their email.

Activation

The use case starts when the user starts entering their email.

Main flow

1. When the user starts entering their email, the system initialises.
2. The user enters their email.
3. The system determines whether the user has entered their email successfully.

Alternate flow

1. If the user has not entered their email successfully, the use case will end.

Exceptional flow

2. The system cannot find the users email in the database,
3. The system alerts the user that their email cannot be found.
4. Use case ends.

Termination

The system presents the next use case.

Post condition

The system will go into the post condition once the user has entered their email correctly.

List further functional requirements here, using the same structure as for Requirements 1 & 2. Most systems would have at least five main functional requirements.

Non-Functional Requirements

Performance/Response time requirement

The site will respond to the users request within three seconds.

Availability requirement

The site will be available twenty four hours a day, seven days a week apart from essential maintenance is being carried out on it. When the maintenance is going on, users will see a message on the screen that will say when the site is due to be back up and running.

Recover requirement

If the site ever crashes, I will need to enlist the services of the person who is best equipped to fix the problem on the job straightaway. If I don't then users may decide to go and try a different site.

Robustness requirement

The site will not fail anywhere in the following areas: network connectivity devices, servers, power supplies, cooling and networks. An error message will pop up when the user has put in an incorrect input.

Security requirement

Our site will be required to have an excellent security system. This means that any potential threats and faults will be detected and fixed before they become a big issue.

Reliability requirement

The probability that the site will fail will not exceed 1% per year. The site will not fail more than three times per year.

Maintainability requirement

We will need to maintain our site in order to keep it up to date with the latest technology and to keep it fresh. Users may become disgruntled if we do not do this.

Portability requirement

The amount of time needed to port the site from Windows 8 to Windows 10 will not take more than two weeks. Porting the application from Windows 8 to Windows 10 will not require modifying more than 5% of the source code. Porting the application

from Windows 8 to Windows 10 will not require modifying more than 5% of the modules.

Extendibility requirement

Over time I may require more cloud space in order to expand my app. The average time taken to make a minor enhancement will not exceed two weeks. The average time taken to make a significant enhancement will not exceed six weeks.

Reusability requirement

A minimum of 30% of the design of the app will be reused. A minimum of 30% of the software will be reused from reusable software. A minimum of 20% of the documentation used will be potentially reusable for future endeavors.

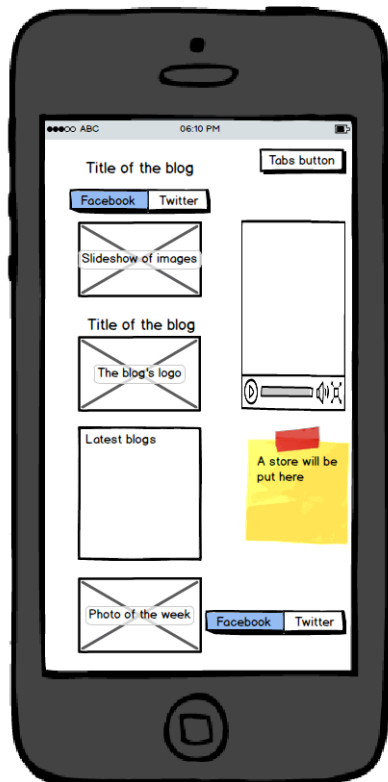
Resource utilization requirement

To make my app better without huge costs, I will have to make sure that I choose resources that I am adept in. It would be of no use for me to spend weeks on coding, for example because I am not good at it. I would be better off spending that time working on designing the app, for example I am good at that.

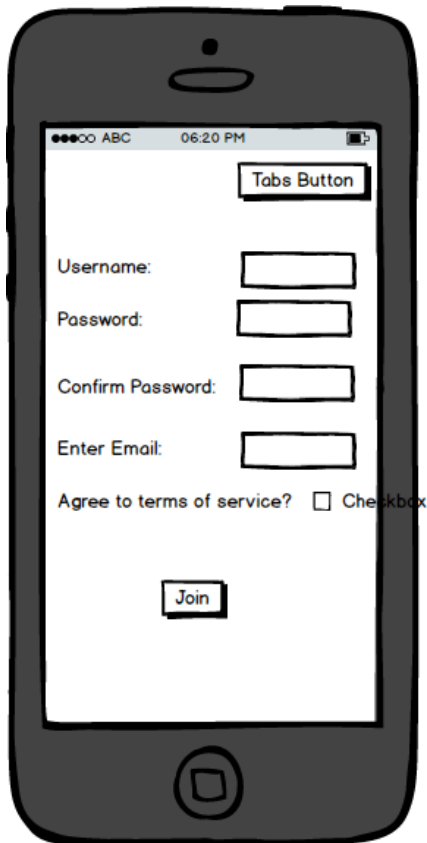
Interface requirements

GUI

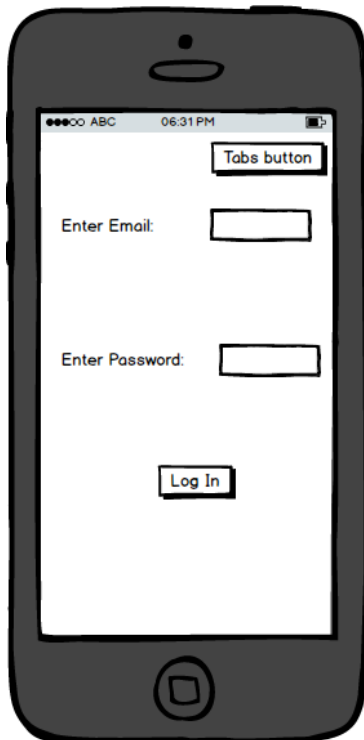
My website is based on blog sites with a forum and a database so that users can comment on the articles on the site or sport in general. Have done mock-ups for the key pages and I will have a description on the requirements for these pages. I will use HTML 5 and CSS 3 to create and style the website.



When the users first access the home page they will see the above mock-up. If they try to comment on the forum without logging in or signing up an alert box will appear. This will tell the user to log in or become a member. When the user clicks on the login in link a dropdown box will appear for them to enter their username and password. An alert box will notify the user if they have entered the username or password incorrectly. Once the user has become a member they will be given the option to sign in using their Facebook or Twitter account. I will achieve this by using Facebook's and Twitter's API'S. In the top right hand corner of the home page, there are links to each part of the app. There are links to the blog's Facebook and Twitter pages at the bottom and the top of the home page. On the left hand side of the page there will be the title of the blog, a slideshow of images, the blog's logo, the latest blogs and the photo of the week. On the right hand side of the page there will be a video of the week and a store where the users can purchase sports goods.



The above mock-up is the apps sign up page. The users information will be stored in the database so that they do not need to sign up every time they visit the site. Once the user clicks the submit button, the information will be scanned for any errors such as the password and confirm password fields not matching, that the username is not already taken and if the email address is a valid email address. If any of the fields have errors an alert will appear on screen to notify the user of which error it is. Otherwise, it will store their information and notify the user that they are now a member and logged in. At the right hand corner of the page there will links to the different page on the app.

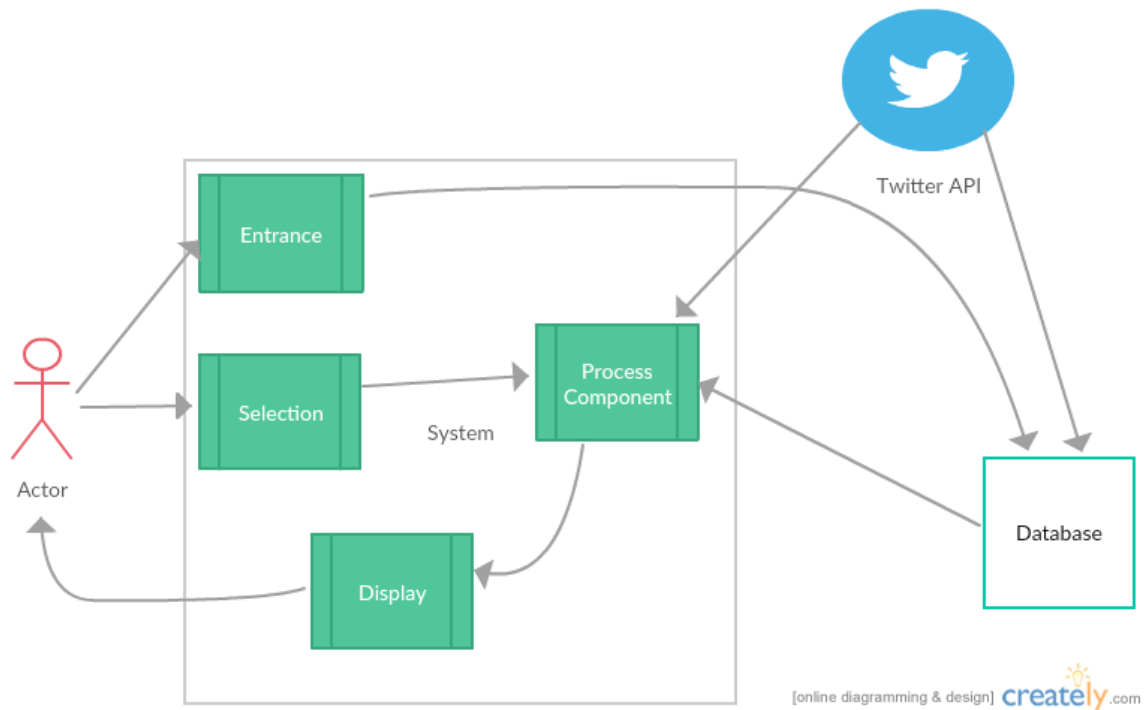


The above mock-up is for the apps log in page. Once the user hits the login button, the information will be scanned for any errors such as the password that has been entered not matching the password that is stored in the database. If an error is found an alert will appear on screen to notify the user of which error has been found. If now errors are found, the users log in credentials will be stored in the database and they will be notified that they are logged in.

Application Programming Interfaces (API)

The two API's that I plan on using in the app are Facebook and Twitter. Twitter's API will be used to sort the forum posts into the the section of football that they are intended for (e.g. match reports). Both API's will be used to link the blog's Facebook and Twitter pages into the app.

System Architecture



The entrance component is the register/login. This goes direct to the database. The selection component is where the user selects an article of interest to them. This ID is taken from Twitters API. I will need to register as a developer for Twitter. The display component is where all the data is sorted and then sent to the user via the user interface.

System Evolution

My system may evolve in a commercial way as there will be space for advertisement if it gets popular enough.

6.4 Monthly Journals

Reflective Journal – September:

Monday 14th September:

Today was our first day back in college and straight away we were given the deadlines for when the project deliverables had to be uploaded by (e.g. the project proposal and project plan have to be uploaded on Friday October 2nd).

Eamon also told us that the project will be worth 95% of the marks and that the project showcase is worth the other 5%.

Monday 21st September:

I have decided to do my project on a sports blog. I have chosen to do a sports blog for my project because I am extremely interested in sport. Initially, I was unsure about doing this for my project but I had a chat with Eamon during the class today and this helped to convince me that it was a good project and that I could get good marks by doing it. I plan on creating a website for the bog first, populate that with some content and then turn it into a mobile app. To help me do this, I researched how to turn a blog into an app.

I also started the project proposal. There are seven headings in this and we will also have to put a project plan into it as well. These can be done in Microsoft Project and I think it has the makings of being quite difficult to do. Hopefully it won't be.

Tuesday 22nd September:

Today I set up the website and I wrote some articles to put in it. The articles were about Ireland's win over Canada in the Rugby World Cup, Leeds United extending the contract of Gaetano Berardi and signing Will Buckley on loan and Japan's shock win over South Africa in the Rugby World Cup.

Monday 28th September:

Today I wrote match reports for Ireland's win against Romania in the Rugby World Cup and Leeds United's defeat to Middlesbrough. I also wrote a round-up of the Premier League results from the weekend. I added a Muut forum to the website so that users can talk about the articles. I also added a store to the website so that users can buy sportswear from the website.

Friday 2nd October:

Today I finalised my project proposal and I put some products into the shop in the app. Thankfully, the project plan wasn't too difficult for me to do once I got my head around it properly and I managed to complete the other headings without too much difficulty. I also added some pictures to the articles I wrote on Monday.

Supervisor Meetings

There were no supervisor meetings in September as we weren't allocated our supervisor's this month.

Date of Meeting:

Items discussed:

Action Items:

Reflective Journal – October:

Monday 5th October:

Today I did most of the work for the reflective journal for last month. It is due to be uploaded to Moodle on Friday. Keith Brittle spoke with us for the duration of the class today about how best to use the Internet for research. He mainly focused on how to search for books in NCI's library. This was focussed on how to refine searches so we can get the most relevant results. I found this beneficial as I didn't realise we could search for books that are in the library online. He also spoke about how to refine searches in Google to get the most relevant results.

Monday 12th October:

I started to work on the requirements specification document today. Anu Sahni spoke to us today about games but I continued to work on the requirements specification document as I'm not doing a game.

Tuesday 13th October:

I met with my supervisor (Damien MacNamara) for the first time today. We went over what the project is and he gave me a few suggestions as to how to improve it. He also told me what he can and can't do with regards to the project.

Monday 19th October:

Today Keith Brittle spoke to us about academic writing and referencing. He went through all of the ways to reference and gave examples of each. I found this beneficial as it showed us how to properly reference our work both in-text and in the bibliography. I also set up a Facebook page and Twitter account for my app.

Wednesday 28th October:

Today I continued working on the requirements specification document. The work that I did today included drawing a use case diagram for both the project use case and one of the projects requirements. These use case diagrams were drawn using creately.com.

Thursday 29th October:

I worked on the requirements specification document today.

Friday 30th October:

Today I worked on the requirements specification document.

Supervisor Meetings

Date of Meeting: 13/10/15

Items discussed: Discussed what the project is about and he offered a few suggestions as to how to improve it. He told me what he can and can't do with regards to the project.

Action Items: Emailed him all of the documents that I have worked on so far.

Reflective Journal – November:

Monday 2nd November:

I continued working on my requirements specification document. I also decided to redo my website as I felt that using a template meant that I would not be able to explain the code properly. In the recreated project, I have so far created a responsive webpage. I will be connecting this to a database and I will be adding a forum to it aswell. In class, Eamon went through the requirements specification document. This gave me a better understanding of I need to do in the areas of the document that I haven't got around to doing yet.

Tuesday 3rd November:

Today I worked on the requirements specification document.

Thursday 5th November:

Today I worked on the requirements specification document.

Friday 6th November:

Today I put the final touches onto the requirements specification document and uploaded it to Moodle. Eamon told us on Monday that what we uploaded to Moodle today will not be the final requirements specification document that we will submit in May. I am happy how my document looks so far.

Sunday 8th November:

Today I sent the requirements specification document that I uploaded to Moodle so he can have a look at it and suggest changes that I could make to it.

Monday 9th November:

Eamon showed us how to connect a database to PHP using a simple method. Hopefully this will be very useful for me when I have to connect a database to my project.

Tuesday 10th November:

I met with my supervisor gave me some feedback on the requirements specification documents I sent to him on Sunday. The feedback is detailed in the "Supervisor Meetings" section below. I think this feedback will of huge benefit to me. We also discussed whether or not I should focus on one sport instead of five or six. I'm in favour of this as I think that doing five or six sports will mean that the quality will not be as high as it could be if I chose just one sport.

Wednesday 11th November:

Today I started to work on the project analysis design document. I also started to implement some of the recommendations that Damien had for my requirements specification document into the document.

Friday 13th November:

Today I continued working on the project analysis design document.

Sunday 15th November:

Today I continued working on the project analysis design document.

Monday 16th November:

Today I worked on my project analysis design document. Eamon said to us that it didn't have to be completed by the upload date. He told me that I could leave some parts of the document blank and come back to them later if I get stuck on them.

Tuesday 17th November:

I continued working on the project analysis design document today. I also updated the project requirements specification document.

Monday 23rd November:

Today we were given a lecture on architecture and frameworks by Michael Bradford. This covered application attributes, application data, application design, application development challenges, development constraints, software architecture, basic design principles, patterns and frameworks. I thought that it was a good lecture and I hope that it will be beneficial to me when it comes to the analysis design document. I worked on the analysis design document and updated the requirements specification document.

Monday 30th November:

Today I deleted most of the blue text that is in the analysis and design document. The blue text is used to tell us what should go under each heading. Eamon said to us that there is a meeting on Wednesday where his 25%/75% marking scheme will be ratified. He told that should this happen, he will explain the breakdown of it in class next week.

Supervisor Meetings

Date of Meeting: 10/11/15

Items discussed: Today my project supervisor gave me some very useful feedback on the requirements specification document that I uploaded on Friday 6th November. His feedback included some useful tips on how to improve the functional requirements section of the document and how to tidy up the documents formatting (editing some parts of the document). We also discussed whether or not I should focus on one sport instead of five or six.

Action Items: Change the functional requirements section of the document so that it reflects the feedback that I was given. Edit parts of the document to make it look better. Choose which sport to focus on and start working on it.

Reflective Journal – December:

Wednesday 2nd December:

Today I uploaded my reflective journal for November.

Friday 4th December:

Today I uploaded my project analysis and design document. I am missing a few headings in the document but that's okay for the moment as Eamon told us a few weeks ago that we should upload what we have, regardless of whether the document was finished or not. I hope to finish the document over the coming weeks.

Monday 7th December:

Today Eamon went through the marking scheme with us and he also went over who we will be presenting our midpoint presentation to. Hopefully this will be beneficial to me. He also told us that the midpoint presentations were likely to be in the second week of semester 2. This is to be confirmed. If they are to be in the second week of semester 2, then I will not have much time to work on my project between then and the exams as my last exam is on the 14th of January.

Supervisor Meetings

Date of Meeting:

Items discussed:

Action Items:

Reflective Journal – January:

Friday 15th January:

I decided to redo the website. I decided to do this as the previous website had been created using a template which meant that I didn't have to code anything. I decided that it would be better if I built the website myself. I want to explain to people what the code is doing. In light of this decision, I researched how to create a responsive website and how to add a forum to a website. I found a tutorial which shows how to create a responsive website and I have started to follow it. I think that this will be beneficial to me.

Sunday 17th January:

I continued following the tutorial. Eamon put up in the Moodle forum what days our midpoint presentations will be on.

Monday 18th January:

I continued following the tutorial. Eamon put up in the Moodle forum that he had created two uploads for our midpoint presentation. The first of these uploads is the report which has to be uploaded by 23.55 on Thursday 4th of February. The other upload is the slides that will be used during the presentation. These have to be uploaded by 23.55 on Thursday 11th of February.

Tuesday 19th January:

I continued following the tutorial.

Wednesday 20th January:

I continued following the tutorial.

Thursday 21st January:

I finished following the tutorial. I aim to use some of what I have learned from following the tutorial when I am creating my website. I also had a quick look at a past project report to see if I could get on ideas on what I can put in my report from that.

Friday 22nd January:

I started working on the report. I am using a past project report to give me some guidance as to what to put in my report. I also started working on the presentation slides for the midpoint presentation.

Sunday 24th January:

I continued working on the report.

Monday 25th January:

Today was our first day back in college after the Christmas break. Eamon gave a seminar about the midpoint presentation. He told us what we should put in our slides and the report and gave us some general presentation tips. We only need to do some parts of the main report for the report that is due up on the 4th of February. I started to work on the midpoint report and I also started to create the website with the help of the tutorial that I followed last week.

Tuesday 26th January:

Today I continued working on the midpoint report and I also continued working on the website.

Wednesday 27th January:

I continued working on the website. I had to get rid of some bits of code from the tutorial as they were causing problems for my website.

Thursday 28th January:

I downloaded the official midpoint presentation schedule that Eamon put up yesterday from Moodle. Eamon had shown a few of us the provisional timetable during the class on Tuesday. I continued working on the midpoint report and I finished creating the main website. I will now need to add the forum to the website. I also started working on the presentation slides.

Friday 29th January:

Today continued working on the presentation slides. I will have to edit them a bit before they are finished. I also researched how to add the forum to the website. I found this research frustrating because a lot of the links/videos looked good but when I went into them they weren't what I was looking for. Happily, I found one that I think I could use. Also, I started to research how to get forums to sort posts into different topics.

Sunday 31st January:

I continued working on the midpoint report.

Supervisor Meetings

Date of Meeting:

Items discussed:

Action Items:

Reflective Journal – February:

Monday 1st February:

I added a link to the forum in the website code. Users will now be able to access the forum from the website. I had to change the colour of the links in the website. The original colour of the links was white. However, this made the link to the forum very hard to see. The new colour is grey. I updated the screenshots on the prototype slide in the presentation slides so they are now up-to-date. I clarified a few things with Eamon in the template for the midpoint report and presentation slides that confused me. Eamon reminded us to put our project proposals in to

the project report before we upload it on Thursday. I added mine into my report as soon as he reminded us to.

I met with my project supervisor to go over where the project is at. He gave me some suggestions as to what I could put in the website and he also told me that the people that I will be presenting to are not out to dock me marks. The suggestions for the website will hopefully be of some use to me and the advice regarding the presentation will be helpful.

Tuesday 2nd February:

Today I found and implemented a different way to embed the forum into the website. Because of this, I delete the old link to the forum that was in the website. I feel that the new way is better and that it will be easier for the users to use. I added links to the websites Facebook and Twitter pages to the Facebook and Twitter image icons on the website. The links will lead users to the websites Facebook and Twitter, depending on which one they clicked on. As the Facebook and Twitter pages were created when I was planning to do the blog on all sports, I had to rename them “Chadwick’s Football Blog” on Facebook and “@Chadwick’sFootieBlog” on Twitter.

Wednesday 3rd February:

Today I got rid of the blue header at the top on the website because it hid the sign in options for the forum. I also changed the background colour of the website from yellow to grey and links to the websites pages were also changed from grey to blue. This was done so that the links would be more visible for users. The hover colour and the colour of the page that the user is currently on were also changed from white to red. I took out the YouTube and Google+ photos that were in the footer because I will not be setting up a page on these sites. I started reading through and updating the midpoint report which is due to be uploaded tomorrow evening.

Thursday 4th February:

I added the reflective journal for January to the appendix on the midpoint project report. All of my completed reflective journals are now in the appendix of the report. I uploaded the midpoint project report to Moodle.

Friday 5th February:

Today I edited the presentation slides and the notes that go with them. I also edited the user requirements part of the technical report and the requirements specification so that they are up-to-date. I timed myself “presenting” the

presentation to see whether if have too much or too little in the presentation. I was 46 seconds over the allotted 10 minutes so I'll have to take a couple of things out.

Sunday 7th February:

I timed myself "presenting" the presentation once again. This time around, I came in just under 8 minutes. I edited the slides a small bit. I will need to edit the notes down a bit further before I'm fully happy with them.

Monday 8th February:

I added in a link to the site to the slides. I edited the presentation notes somewhat.

Tuesday 9th February:

I edited the presentation notes. I timed myself presenting the presentation. It took me 9 minutes 36 seconds to present the project this time around. I printed off the presentation slides, notes and the midpoint report for tomorrow's presentation.

Wednesday 10th February:

I was meant to do my presentation today. However, it was postponed because my supervisor couldn't make it in because of flooding.

Thursday 11th February:

I uploaded the presentation slides to Moodle this evening. I have heard that my presentation will probably be on Monday or Tuesday of next week. There has been no official confirmation as of yet so until I get that confirmation it's a case of wait and see.

Monday 15th February:

I got an email from Damien telling me the date and time of my re-arranged presentation. My presentation is on Wednesday at 17.40. I am not too happy about this but I suppose I'll just have to get on with it.

Tuesday 16th February:

Today Siobhan Mockler spoke to us about the project showcase and what we have to do in preparation for the showcase. One of things we have to do is a 30 word profile of our project. This is due up in a couple of week time.

Wednesday 17th February:

As my midpoint presentation is this evening, I did one last timed rehearsal. My time came in just under the allotted 10 minute mark. I feel that I am as ready as I'll ever be for the midpoint presentation and I hope that it goes well.

I finally did my midpoint presentation this evening. I feel that it went ok. It could have gone better but it also could have gone worse. I got some great feedback and I hope to implement some if not all of the ideas that the lecturers suggested to me. I put the feedback from the presentation into a document on my laptop so that I can go back to it and remind myself of what it is I need to do in order to make the project better.

Monday 22nd February:

Over the weekend, I found out my mark for the first 25% of project. The 25% was made up: the project proposal document (5%), the requirement specification document (10%), the project analysis and design document (2%) and the midpoint and prototype presentation (8%). My mark was 27%. Initially I was a confused about what the 27% was out of. Was it out of the 8% for the midpoint and prototype presentation or was it out of the full 25%. I asked Eamon what my mark was out of and he confirmed to me that it was out the full 25%. This means that I got 6.75% out of a possible 25%. Whilst I am obviously very disappointed with the mark I got I have to keep a positive attitude going forward and hopefully this will help me to gain enough marks so I can pass. As Eamon said to me "You have 6% more than other people."

Today, Siobhán, Caroline and Helen from Careers came up to the class today to help us with our 30-40 word showcase profiles of our project. Helen helped me with mine.

Tuesday 23rd February:

Today, Siobhán, Caroline and Helen from Careers once again came up to the class today to help us with our 30-40 word showcase profiles of our project. Caroline and Siobhán helped me with mine today. Mine is pretty much ready to be uploaded to Moodle. It is due up next Friday at 11.55pm. I also added a Google map to the website. I am going to try to pinpoint stadiums in England and Ireland so that users can find out information about those stadiums.

Friday 26th February:

Today I worked on adding a map with the stadiums of all of the teams in the Airtricity League Premier Division and in the Barclays Premier League to the website.

Saturday 27th February:

Today I finished adding the map that I started working on yesterday to the website.

Sunday 28th February:

I added a Twitter widget to the website. The widget will show the tweets from the website's Twitter account. I believe this will make the website seem more "live".

Monday 29th February:

Today we had a seminar about the marking scheme and rubric for the final upload of the project. It was hosted by Vikas Sahni. It covered areas of the project like software engineering and artefact development. It showed us the weighting of marks for each area. It was good to get a bit more clarity about what is required in each of the areas.

Tuesday 1st March:

I met with my supervisor today. I told him that since the midpoint presentation, I had implemented a map and a twitter widget into the website. He said that I should focus on the design pattern of the website, add events to the map and import news feeds from leading soccer journalists. He also gave me the name of a couple of books about design patterns that I might find useful. He also explained to me how to go through the requirements in the document.

Supervisor Meetings

Date of Meeting: 01/02/16

Items discussed: Project Ideas

Action Items: Look into how to import articles from other sites into the website, look into how to sign in with Facebook, Twitter etc.

Date of Meeting: 01/01/16

Items discussed: How to improve project

Action Items: Focus on design pattern of website, add events to map and import news feeds from leading soccer journalists. List requirements of website and put them into report with brief description of each.

Reflective Journal – March:

Friday 4th March:

Today I started to list the requirements and their dependencies. I emailed Damien this morning and asked him what sort of requirements I should put and explained to me what a functional requirement should describe. He also suggested a few requirements that I could put in. I also added a couple of Twitter widgets of Irish football journalists into the website. I also added a heading and a sub-heading to both the “map” and the “tweets” divs. As well as this, I researched web design template to see which one I could use for my website. Unfortunately, I couldn't find one that I thought would be suitable. Finally, I tried to find out how to add events into the map that is in the website. Once again, I could not find any way to do it.

Monday 7th March:

Today I started working on the 200 word profile for the project showcase. I used some examples from last year to make sure I have formatted the profile correctly.

Tuesday 8th March:

Today I continued to work on the 200 word profile. At this stage, I am nearly finished it. I have 193 words in the description at the moment. The deadline for upload to Moodle is 25th March, so I have plenty of time to finish it.

Friday 11th March:

Today I downloaded a web design template and started editing it to suit my website. I did this because I think that the design on the previous website was poor.

Monday 21st March:

I continued working on the new website. Eamon also gave a lecture to us today about implementation and testing.

Tuesday 22nd March:

Today I went over my 200 word profile that we have to do for the project showcase. He told me that one line needed to be edited so I edited it to something that was more suitable. He also said that my word count of 216 words was fine. It is due to be uploaded on Friday night. I also continued working on the new website.

Tuesday 29th March:

Today Eamon brought in a sample project poster and went over it in class. The posters are for the project showcase. I took a picture of it and the label on the back of it so I wouldn't forget what they looked like. The label is used to identify the project.

Thursday 31st March:

Today I did a small bit of work on the website.

Friday 1st April:

I managed to edit all of the websites pages apart from the "single page" so that they now contain the information that I want them to contain. I am having trouble in a couple of areas of the design of the websites, in particular the footer. My problem is that it doesn't stay on the bottom of the page. I will need to get this fixed. I also downloaded the sample posters and the poster template that Eamon posted up to Moodle.

Monday 4th April:

Today I met with Damien and I had a short discussion with him about possibly deferring my project to August. This would give me a better chance of getting it right before uploading it. I'll have to look up information about deferrals before making my final decision. I also told him about the new website. I also sent him an email with the new website attached.

Supervisor Meetings

Date of Meeting: 04/04/16

Items discussed: New website template, potential deferral of project to August

Action Items: Email new website to Damien

6.5 Other Material Used

Any other reference material used in the project for example evaluation surveys etc.

CD containing code should be glued to the technical report.

