



National
College *of*
Ireland



Street Art Dublin

Technical Report

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Declaration Cover Sheet for Project Submission

SECTION 1

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SECTION 2 Confirmation of Authorship

The acceptance of your work is subject to your signature on the following declaration:

I confirm that I have read the College statement on plagiarism (summarized overleaf and printed in full in the Student Handbook) and that the work I have submitted for assessment is entirely my own work.

Signature: *Jason Matthews* Date: 10/5/2016

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Executive Summary

Street art in Dublin has been growing significantly over the last few years and people of all ages are beginning to take an interest in it, there are several events held throughout the year but are only really advertised by word of mouth and through a Facebook page which has a small following.

My goal for this application is to create an online tour on mobile for people to visit various pieces of street art around Dublin and take their own photographs of the art.

There will be a homepage where the best pieces will be showcased or a particularly nice photograph of a piece has been taken and deserves to make the homepage.

The map showing the locations of the art will be a huge part of the application as quite often people do not get a good enough experience by just seeing a picture, they will enjoy knowing the location and going to see it with their own eyes.

Often a piece of street art will be taken down by the council or another artist will paint over it, this is why photographing the pieces is important as a photo will last forever but the piece could only last a few days.

1 Introduction

1.1 Background

The reason I chose this topic for my project is because I have had an interest in the subject from an early age. I have always preferred doing projects on something that interests me because it gives me more motivation to work on the project and make it the best I possibly can.

The intended users for my application was anyone with an interest in street art or graffiti, this can range from people who actually do street art or just like to look at it. The fact that the application is an online tour tourists visiting Dublin who have an interest in the subject would find the app beneficial.

The idea for this application came from my personal experiences of being on holidays and not having much knowledge about street art abroad, while I was in London last year I spotted someone charging an absurd amount of money to bring people on a tour around London showing them locations of a famous English artist's work.

This sparked the idea that I could make an online tour in the form of a mobile application and make it about my hometown.

Another inspiration for the project came from the Discover Ireland advertisements on the television. This made we want to create a discover Dublin application but have it specifically based around street art.

1.2 Aims

The goals of the project are to develop a mobile application along with a web application.

The System will have a login, and a news feed with all recent updates, there will be an interactive map from Google on the application showing locations of street art.

The map will have several custom pins and a sentence about the piece, if you wish you can then get directions to visit the piece.

There is little to no cost constraints for my application as I am building it myself, the only cost I can see could be paying for a domain name, there is no fee for creating diagrams as I will be using Creately for my software diagrams.

1.3 Technologies

The web application of my project is being developed using several web technologies, specifically PHP, HTML5, CSS and JavaScript.

I will be creating a database using SQL that will handle the user registration and login. The software required to build the web application will be Cloud9 IDE and Android Studio to develop the mobile application.

Android Studio was the perfect choice to develop my application as it made specifically for the operating system you are going to use it on. You don't have to try and mold two different technologies together.

“World-class code editing, debugging, performance tooling, a flexible build system, and an instant build/deploy system all allow you to focus on building unique and high quality apps.” – Android Studio Website

Majority of the interfaces on my application are created using XML within Android Studio. These files hold all of the items to display the content of the pages. Java classes define how these XML files function. It also gives them the ability to link to each other and work together.

Java has been taught heavily throughout my years in this course so I was grateful that Android Studio uses this and I was familiar with it. I would not have enjoyed developing the app very much if it involved learning a completely new programming language.

2 System

2.1 Requirements

Requirements is often the first activity you must complete in the software development lifecycle,

The application will be user friendly and all users should know how to use all of the systems functionality after only a couple of minutes with the application.

I spoke to a number of artists from around Dublin and they were all interested in my idea and said they would create accounts and actively use the finished product.

Majority of the functionality is visual so once you are logged in the only other thing you need to learn how to do is tick a box on the checklist page of the app.

2.1.1 Functional requirements

Login/Registration: In order to use this application you will need to login, this is done by setting up an account in the application, it will be done simply using a username and a password, the password will have to have a number included in it and also an uppercase letter to ensure security is at its highest.

The login details will be stored in a database setup using SQL this means the user will not have to create an account on their next visit so they can just enter their password and be able to use the application without restrictions.

Login requirement

Description & Priority

The login is very important to the application because if you do not make an account and login you will not gain full access to the application.

Use Case

Scope

The scope of this use case is to give users access to the application.

Description

This use case allows a user to input their credentials which will be saved in a database for the next time they visit the site.

Precondition

The system is in initialisation mode.

Activation

This use case starts when the user gives the right details and then the application launches fully.

Termination

The system allows the user to remember their details then exits the login.

Post condition

The system goes into a wait state.

Interactive Map: The map inside my application will be hosted using the Google Maps API. This will have coordinates preset as my application will only be about Dublin. These coordinates are in place so the users don't go off track and look at other counties in Ireland which will have no content on them.

On the map there will be customized pin points with an image of my choice on them. The user can click on this image and they will be brought to a section that gives information about the image and shows it in a better-quality form.

There is also an option for users to get directions from their current location to a pin on the map.

2.1.2 Data requirements

- **SQL Requirements:** The application retrieves and stores all data from the registration and login page, the data is accessed from one of the PHP pages and can also be retrieved using some simple queries in the database.

2.1.3 User requirements

As of now there is only one major requirement needed to use my application however this will change over time.

- **Internet access:** All users must be connected to the internet to use this application.
- **Android Mobile Phone:** The mobile application is being developed for Android phones only.

2.1.4 Environmental requirements

- **OS:** The operating system used to develop the application was windows 7
- **Internet Access:** This was needed to test some the functionality of my application.
- **Photoshop:** Was used for editing of logos and photos used in the application.

2.1.5 Usability requirements

- **Understandable:** The UI will be easy to understand and have clear instructions.
- **Operable:** The application must be consistent when performing actions and if an error does occur the user must be notified.
- **Aesthetics:** The layout has to be attractive and eye catching as well as the use of nice colour schemes that works well together. Bearing in mind I would like to keep away from colours that could affect people that are colour-blind.

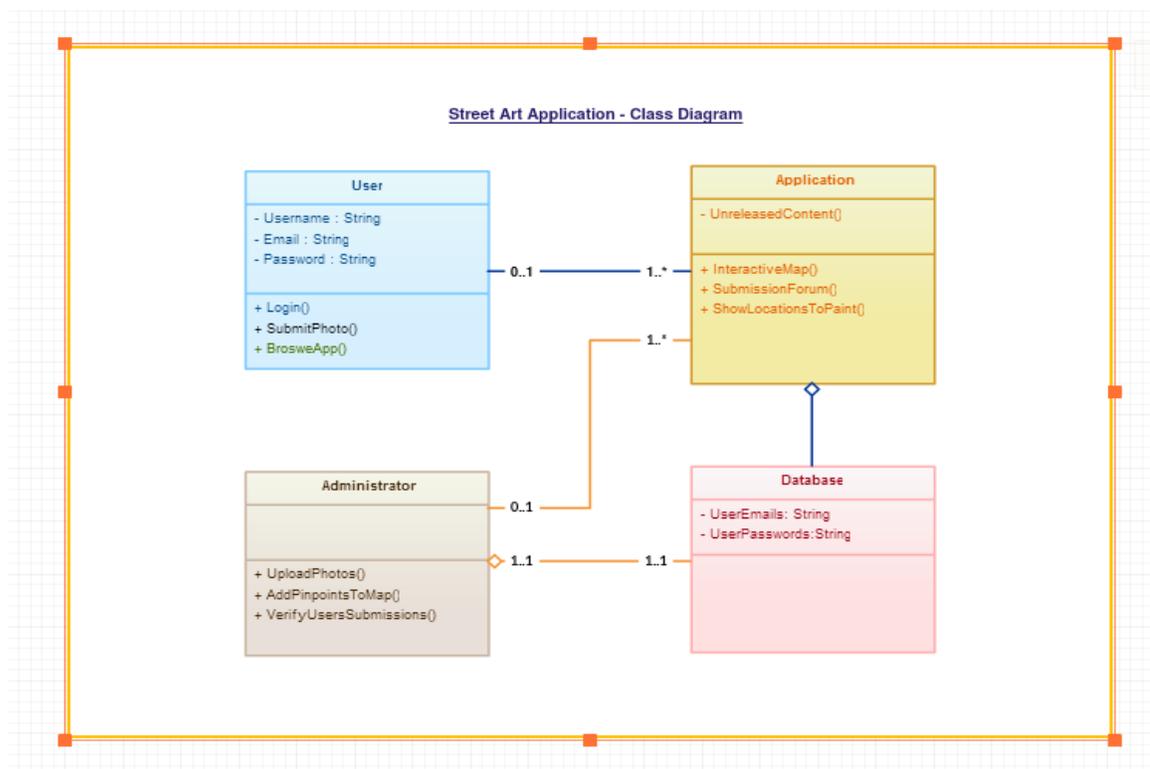
2.2 Design and Architecture

The application is coded primarily using HTML5 and PHP with a small amount of Java, the application is using Google Maps API for the use of my interactive map.

The architecture used in the application is straight forward and simple to understand, there is a SQL database to handle user login, and PHP is used to process all requests to and from the database.

The architecture of the mobile application follows the usual pattern of an android application, a series of XML files with GUI's and java classes all combined to make a fluid mobile app.

The design of the application is based around the idea that all pages are accessible from each other. This is so no pages are hidden or require you to open 2 pages before you can actually get to the one you want to open.



2.3 Implementation

Street Art Dublin is developed primarily through Android Studio and works together with the Google Maps API for the core functionality.

Android Studio is used to create the application itself using many XML and Java classes along with GUI's developed inside Android Studio itself.

Google Maps API was used to help create my interactive map. The map is hard coded into an XML file within Android Studio however a Google Developers API key was needed for permission to use Google Maps in the application.

Examples of these technologies working together can be found below.

Android Manifest XML File

This is the most important file in any Android application, every Android project must have this file and the name cannot be edited by any means. The manifest file is where all of the application information is held and this information is essential for the building and running of an application.

Some features are restricted and require a permission in order to perform a certain activity. You have to declare you allow your application to use this feature in the android manifest file.

I used the manifest file to declare the permissions of the application, the permissions I needed for my app were to allow internet access along as getting my current location using Google Maps.

Another permission needed was a Google Maps API key which is essential if you want to have your own map and avail of Google's API.

Here are some examples of my permissions:

```
<uses-permission android:name="android.permission.INTERNET" />
```

```
<uses-permission android:name="android.permission.ACCESS_FINE_LOCATION" />
```

```
<meta-data
```

```
android:name="com.google.android.geo.API_KEY"
```

```
android:value="AizA38HD87HFN3838N" />
```

Application Homepage

The first page that loads once the application has been launched is called the Main Activity. In this file I created the GUI using several buttons and implemented the logo in the middle of the screen.

The Homepage was created using an Image View for rendering the logo on the screen and two buttons that link to other pages. You can edit all of the information about the button in the Content Main file, this includes the colour, shape and positioning of the button. You can also edit what the button says on the front of it.

```
<Button
    style="?android:attr/buttonStyleSmall"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Tour"
    android:id="@+id/tourBTN"
    android:background="#78c3e9"
    android:layout_marginBottom="64dp"/>
```

Navigation Bar

When you have opened the application and made your way to the discover button you are brought to a separate page. On this page you will see there is a navigation bar that you can choose a different page to visit from, these pages vary from a gallery of photos to an artist's profile.

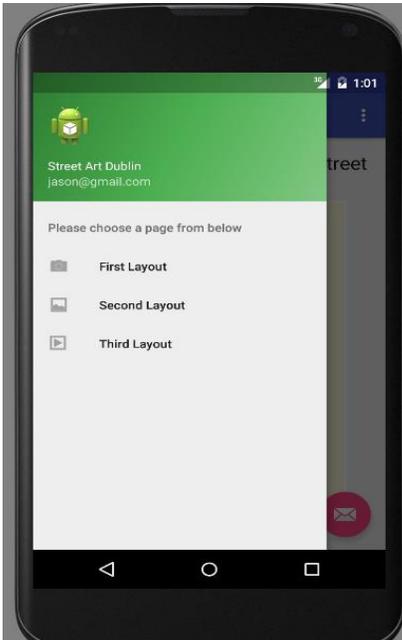
The navigation bar becomes visible if you click a button in the top left hand corner of the screen. This bar then slides in from the side with the pages visible.

- Here is the code that opens and closes the navigation bar

```
DrawerLayout drawer = (DrawerLayout) findViewById(R.id.drawer_layout);
ActionBarDrawerToggle toggle = new ActionBarDrawerToggle(
    this, drawer, toolbar, R.string.navigation_drawer_open,
    R.string.navigation_drawer_close);
drawer.setDrawerListener(toggle);
toggle.syncState();
```

This navigation bar was created using something called Fragments. I created and combined these multiple fragments in a single activity to build a multi-pane user interface.

What this means is all of the fragments are connected to the same java activity however they all have different content to each other. I created the application this way as it eliminates the need for redundant files that are not used.



Here is an example of when I first opened the Navigation bar. This bar slides across the current page you are on and gives you options of 3 pages you can then visit. Each page you visit then goes blank and the application then replaces the page with a new one containing the content you selected to view.

```
if (id == R.id.nav_first_layout) {  
    fragmentManager.beginTransaction()  
        .replace(R.id.content_frame  
            , new FirstFragment())  
        .commit();  
}
```

The above code shows the content_frame being replaced by the First Fragment Java class.

Map

There is also the discover Dublin section this is where the map is located and the checklist for locations you have visited previously. The map has all of the custom pins I created in the code by setting the latitude and longitude of the desired location, I added more code to add an information box named a snippet and edited the colour of each pin.

The most important thing that has been implemented onto my application has been the interactive map. This is done on Android studio using various XML files connecting with the Google Maps API.

When opened, the map will hover over Dublin at an angle so that all of the custom markers are visible at the same time, this is done by giving the coordinates of Dublin and editing how much the map zooms in when opened initially.

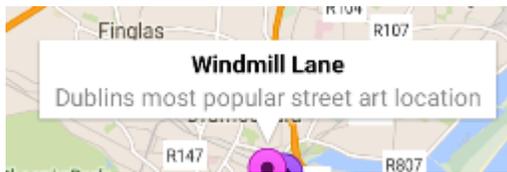
Example of code to set 1 marker on the map:

```
@Override
public void onMapReady(GoogleMap googleMap) {
    mMap = googleMap;

    // Adds a marker in the coordinates specified
    LatLng a = new LatLng(53.337791888093896, -6.291303632143581);
    mMap.addMarker(new MarkerOptions().position(a).title("Optimist").snippet("A piece located near the Guinness Storehouse"))
```

Map Snippet

I used the .Snippet method within Android Studio to hold a small paragraph on information for each pin on the map. This gave much more freedom than just using the title for each pin.



The words in bold is the title of the pin, the grey sentence beneath is the addition of the snippet. This gives users some more information on the location and does not take up a large portion of the map.

Checklist

This section of the app features a separate page with some images of the art, there is also a series of check boxes so you can keep track of which pieces you visited and took your own photograph of.

The checklist page has a TextView stating the name of the piece of art, and then there is a checklist box that can be ticked when a user has visited that location. The TextView and CheckBox are both aligned perfectly so there is no confusion about which box the user can tick.

This was done using an XML file and creating a GUI within Android Studio.

Linking separate pages

Any time the application has to leave on page and open another via a button code similar to this was used. Once the button (mapBTN in this case) has been clicked the intent starts by moving the application from MainActivity.this to Locations.class.

What this means is that the application was previously on the MainActivity because it has *.this* at the end. Then it moved to the Locations Java class.

```
mapBTN = (Button) findViewById(R.id.mapBTN);
mapBTN.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent i2 = new Intent(MainActivity.this, Locations.class);
        startActivity(i2);
    }
});
```

Example of code linking a button to a separate java class

The Drawable folder

Any images you want to use inside your application have to be stored in this folder within Android Studio. All images in this folder are required to have all lowercase names.

Once an image has been stored in this folder successfully it can then be called and rendered onto an Image View on one of your XML files.

```
<ImageView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/imageViewAches"
    android:src="@drawable/aches"/>
```

Here is the code for rendering an image. You state the name of the image in the SRC section and give the path from drawable folder and add the name of the image. In this case the image was named "aches"

2.4 Testing

Testing has been prominent throughout the entire project, every time I wrote a bit of code or created a new page I constantly tested it. Sometimes you are testing without even realising.

Each time you run your application or a part of it, you know in your head what is supposed to happen so you can document this in a similar way.

What are you testing for? What happened? Was this the expected outcome?

These are the things I went by when testing my application specifically when it came to testing my map.

Any error I encountered while testing the application as a developer was a syntax error, sometimes your IDE can help identify these errors but a lot of the time you have to figure it out through trial and error. You have to do the test again every time you make some adjustments until all areas pass the test.

Test 1

Requirement: Interactive Map

- Action Taken: Clicking the map button for the first time.
- Expected Outcome: The application should display a map with some custom pins.
- Actual Outcome: No map appeared when the activity was launched.
- Result: Test failed.
- Comments: The map is not displaying but it's linking to the right page, seems to be an error when linking to the Google Maps API.

Test 2

Requirement: Interactive Map

- Action Taken: Clicking the map button for the second time.
- Expected Outcome: The application should display a map with pins in the locations I put into the code.
- Actual Outcome: Map launched successfully.
- Result: Test successful.
- Comments: The error I encountered was I needed to get an API key from Google and implement this into my code to get permission to use their map.

Test 3

Requirement: Interactive Map

- Action Taken: Displaying the Google Map.
- Expected Outcome: The application should launch directly above Dublin.
- Actual Outcome: Map launched above Dublin however it was very zoomed out and was extremely hard to locate where my maps pins were pointing to.
- Result: Test failed.
- Comments: The pins on the map were showing and the map was in the correct location it was just not set to correct zoom level.

Test 4

Requirement: Interactive Map

- Action Taken: Displaying the Google Map in the correct location.
- Expected Outcome: The application should launch directly above Dublin.
- Actual Outcome: The map launched above Dublin at the perfect level of zoom and all street names and pins were visible.
- Result: Test successful.
- Comments: I found a fix for this which did not take too long. I just had to predefine the amount of zoom the map makes before launching. After this fix the map worked exactly how I intended it to.

Log Messages in Android Studio, each time you run your app you can view the devices log messages by clicking the Android icon in the corner of the screen. Log Messages can help give you an indication as to where an error has occurred by giving you the line of code the error could be located in.

Quite often the system will return a message with the possible cause of the error, with this information you can search online for people with the same error and look for a potential fix.

2.5 Graphical User Interface (GUI) Layout

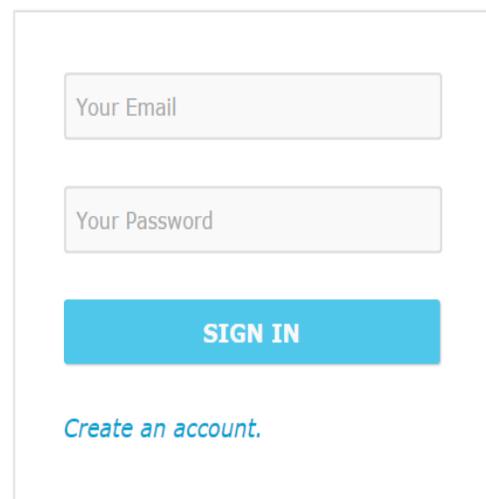
Introduction: Below are a series of screenshots and mock-ups ranging from before I started developing the application to actual screenshots of the finished product.

The first few months of development I spent making a web application. This featured a user login / registration page which was connected to a database using SQL.

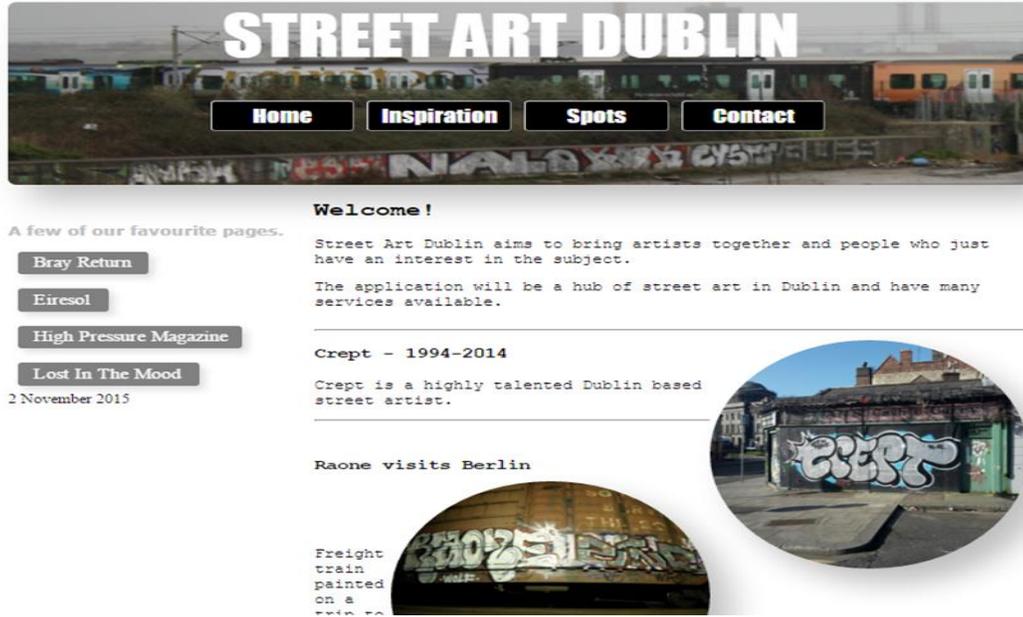
After the midpoint presentation it was suggested to me that I stray away from the web application and instead focus on a mobile application, this is when I shifted my development to Android Studio. I then had to create some examples of what I wanted the mobile app to look like.

Login: Once the application is launched users will be presented with a login page, asking for a simple username or password, these were stored in a database for future logins. When you have logged in you will be brought to the homepage of the site.

Below are two screenshots of the old webpage's login section, the one on the left was when I first coded the login so there was no CSS to go with it, The screenshot on the right was the final login page with CSS and a registration page to sign up page to register an account.



Homepage: This is an old screenshot of the homepage from web application that I was developing before I moved the project to Android Studio.



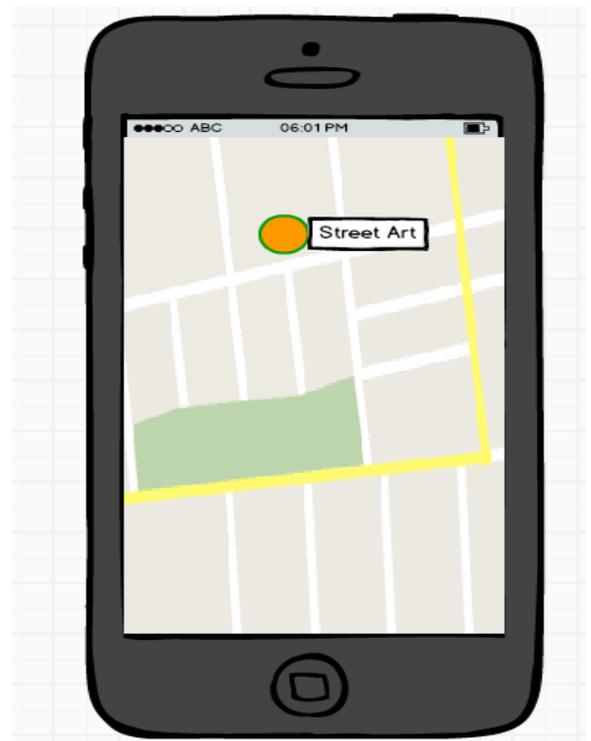
Android Application GUI ideas and prototypes:

I created the following prototypes mainly as a guide for myself. I wanted to develop the different parts of the application with these GUI's in mind, they were very helpful because I knew what I was working towards and tried to keep as close as possible to my original designs.



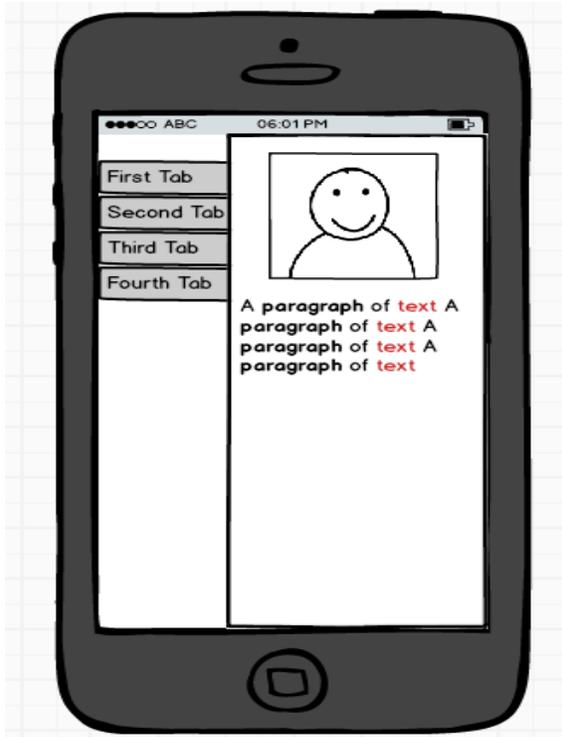
1: This is the original design for a login page to the mobile application.

Extremely basic as it only features 3 buttons and a Text View displaying "Please Sign In" this was the easiest design to follow.



2: The next GUI mock-up is for the Google Maps part of my application.

This design could not be altered much as it is completely showing the map. I did try to show that the pins will have a unique colour to show they are not related.



3: This is an example of what I want my main content and library of pages to look like.

This was the most important page of the application to design. It involved research into how I was going to create the separate pages.

I decided I was going to use a navigation page that you click an icon in the top left corner which slides open (this example stating first, second, third and fourth tabs).

These tabs bring you to different pages full of content. These tabs were created using Fragments and Java classes.

4: Art visited page.

This section of the application involves a series of check boxes and titles. Each title corresponds to the name of a pin on the map.

Once you visit a location on the map you can then keep track of the art you have visited by using this page.

You tick the box and the application remembers which box you ticked each time you visit the application.



Examples of the final Android application pages, some are still in progress:



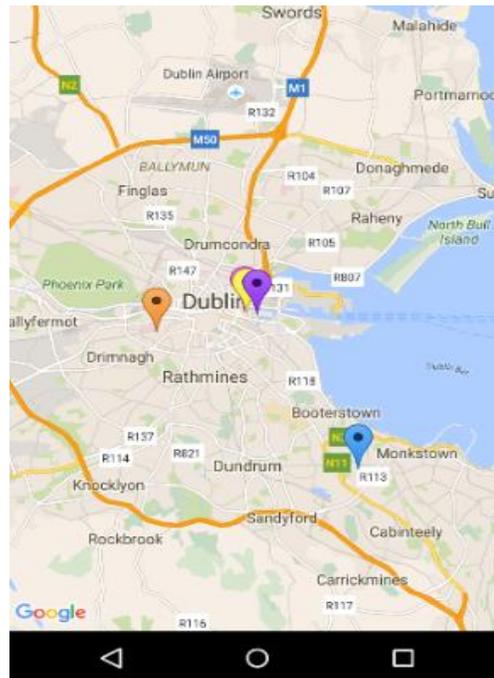
1: This is the first page that displays when the application is launched.

The page is minimalistic and features a logo and two buttons. The two buttons link to different pages the first being the map.

The second button is the tour. This is the Art Visited page from my mock-up above.

2: This is the page the map is located on.

Once the map button is pressed it brings you to a separate page in which the map loads. The map features the custom pins which I created using Google Maps API and gave the coordinates for.





3: This is one of the content pages I mentioned in the sample GUI's.

These pages are used to house the photos of the street art that are mentioned in the map and in the Art Visited section of the application.

The pages in this section of the application can also be used for general information. This example shows a post advertising the upcoming event in June.

2.6 Customer testing

As far as customer testing goes the application has not been officially launched so there have not been any opportunities to get some feedback from genuine users. The application was made around the idea of being non-profit. However I did ask 5 random students from NCI (Business + Computing) students to test my application and answer a few brief questions.

The questions were:

- Did you encounter any errors in the application?
- Was it difficult to use?
- Does the app look nice?

5/5 Students stated the application was easy to learn and use.

5/5 Students said the application was nice to look at and had a good colour scheme.

1/5 Students found a slight error in the application which I fixed later that day.

2.7 Evaluation

Once I had finished testing all aspects of the application and all errors had been discovered I then worked around them and found fixes for each error, the application is now running smoothly and all errors have been corrected.

The questions I asked the 5 students from NCI was of great benefit to me, it was the first time I got an outside perspective on my work and the feedback was great. All students found the application relatively easy to use and visually appealing.

One student actually managed to find an error within the application this was a simple fix but I am very grateful to them for bringing it to my attention, one of the buttons on the app was linking to the wrong page.

The application was evaluated by asking 5 students a series of questions here are the findings:

The questions were

- Did you encounter any errors in the application?
- Was it difficult to use?
- Does the app look nice?

5/5 Students stated the application was easy to learn and use.

5/5 Students said the application was nice to look at and had a good colour scheme.

1/5 Students found a slight error in the application which I fixed later that day.

3 Conclusions

This report outlines why I decided to develop a mobile application, clearly stating my motivations and what the desired outcome was.

The report also shows the GUI's from the start of the year showing what I wanted my application to look like and then I give a comparison of the finished product.

I spoke about the technologies I used to develop the application and how I used them.

So far I have enjoyed developing this application, it has been challenging at times but when you finally fix an error or problem you have been having it gives you a great feeling of satisfaction.

I have gained invaluable experience throughout this project especially within Android Development I am much more comfortable developing apps on this platform now.

I am happy I decided to develop a project which I have a genuine interest in as it keeps you motivated and you enjoy working on something you are interested in.

The project has also taught me how to manage my time better by sticking to my project plan since the start of the semester.

4 Further development or research

If I had more time I would have liked to develop a forum for users to upload their own photos to the application that would either post to the map using Geolocation or just post simply post them to a forum that other users can then comment underneath that specific post.

I do intend to develop this application further when I leave college as I have a few more ideas for the project and hope to one day have it fully launched and for other users to enjoy and benefit from the application.

5 Appendix

5.1 Project Proposal

Objectives

The overall objective for this project is to create a mobile application based around street art in Dublin, the application will have a picture of some art with a character profile description on the artist, it will also give the location of the piece and will have a tick beside it if it's still there so you can go and visit the piece or if it has been painted over it will show that it's no longer available.

This application will serve as an online tour for users to visit street art locations and take their own pictures of some pieces of art.

I will be adding a section for legal places to do street art around Dublin, there are several of them and not many people know about them, this can be useful for tourists and local people.

Background

Most successful apps have a few main goals and I tried to adhere by these in my selection process in what I was going to do for my project, one of the goals was to solve a problem or make people's lives easier, this can be done by merging two processes into one.

This application can be used in several different ways, one can be just to view art from the comfort of your own home, but it will also give the location of the piece on google maps if you wanted to go and see it in person and take a picture of it to post online.

The app will aim to combine the processes of a few different websites into one, this will make for an easy to use but efficient application.

Technical Approach

- The technical approach will be to firstly post a picture of a street piece with some information behind it.
- There will then be a get locations button that will bring you to google maps and have the piece pin pointed.
- You can then find your way to the piece.
- Get the database linked up to the submission section of the application.
- Suggestions of legal places to do your own street art.

Technical Details

The application will be built using a number of programming languages and a range of different software. The languages that I plan on using are: **Java, PHP, CSS** and **HTML**.

The software applications that will be needed for completion of the project are: Photoshop for the creation of logos and images.

Eclipse and Cloud9 will be used for general coding.

Android 6.0 Software Development Kit.

Evaluation

The application will have to be very accurate and precise on gathering information and pictures about the street art, as some artists identities are unknown and would like things to be kept like that.

This will be tested using the Unit Test, this method of testing is very in depth and tests each section of the application on its own you can then evaluate if something is not working as it is supposed to be and you know exactly where and what went wrong using this method of testing.

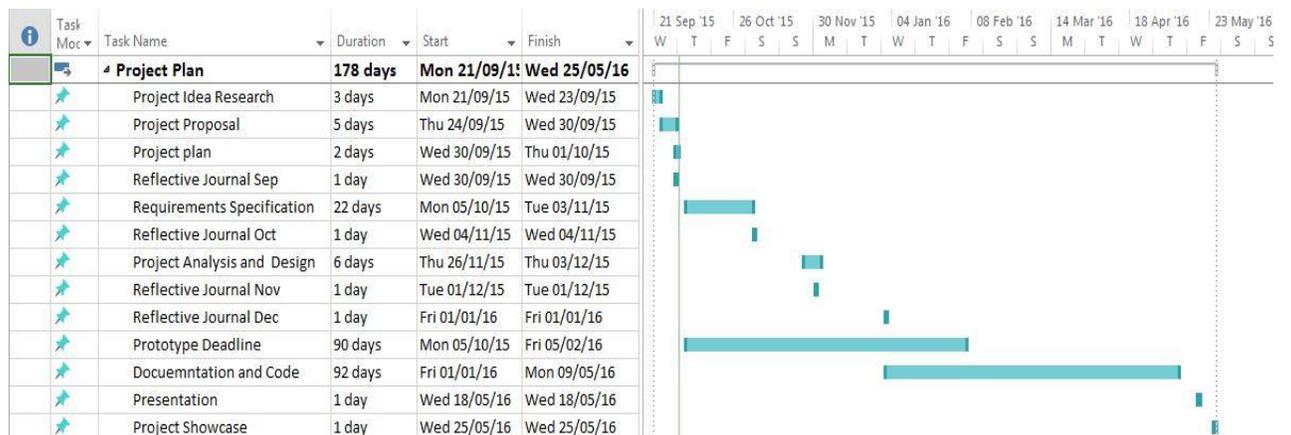
5.2 Project Plan

Project Plan

Gantt chart created using Microsoft Project outlining all of the project deadlines and my intended progress throughout the semester.



Project Plan.mpp



5.3 Monthly Journals

September

My Achievements

This month I was mostly focusing on drawing up project ideas, some were way beyond my capabilities and I would not have completed them in the given timeframe, if ever for that matter, I have changed my mind a lot over the past 3 weeks and I have finally come up with an idea that I am satisfied with.

My main contribution to the project this month was the completion of the project proposal. This was a tedious task and required a lot of thinking and brainstorming.

My Reflection

I felt, I worked well in the allocated time given to us on a Monday between 9-3 as I felt I had to be doing something project related as opposed to doing it in my spare time after college hours, I worked freely and at my own pace in these Monday independent study classes and assume they will be very beneficial as the weeks go by.

Intended Changes

Next month, I will try to gain a better understanding of how I am going to get a good start on the project and see if everything I want to accomplish will actually work together.

I realised that I need to do a lot more research and think of possible additions to my project to make it as good as I possibly can.

Supervisor Meetings

As of now there have been no supervisor meetings because we have not yet been assigned supervisors for the software project.

October

My Achievements

This month I was working on my requirements specification documentation, this required quite a lot of research but also helped me understand my project in more detail.

I also started designing some logos for the application and started designing a web page.

I mentioned in my last reflective journal that I had to do more research on my project which I have done, I have made some tweaks to my proposal and am happier with the project now.

My Reflection

This month I worked on my requirements specification for over 2 weeks, usually in the Monday block class but also put in some hours after college. I am glad I have started to design and layout my web page at this point as it will leave me with more time to do other aspects of the project further down the line.

Intended Changes

Next month my main goal is to try and get my database up and running I plan to use SQL for this.

Supervisor Meetings

This month I had two meetings with my project supervisor Frances.

The first meeting was group based, and we went around the room introducing ourselves to Frances, Telling her our project idea and some of the technologies we plan on using to complete the project.

My second meeting was just the two of us, In this meeting we talked about my project proposal in more detail, I got a better understanding of what was being asked of us for the project and was given a few ideas which I will probably implement.

November

My Achievements

This month I was researching some areas of my project that I had talked about with my supervisor, I also made some further progress on my webpage particularly styling it using CSS, I enhanced my user login which is nearly functional now.

My Reflection

This month I worked on the Project Analysis and Design documentation which is due on Friday December 4th, this document didn't take as long as the requirements specification but still required some research and thought

Intended Changes

Next month I intend to implement that Google Maps API into my webpage and start making some custom pins on the map.

Supervisor Meetings

This month I did not have any supervisor meetings, however in my last meeting Frances gave me some ideas and topics to research and that's what I have been doing since then.

December

My Achievements

This was definitely my least productive month so far, I am slightly behind schedule from my project plan and this is due to my focus on the upcoming examinations and finishing projects for other modules that are due soon.

My Reflection

I feel like I could have done more work on my project this month if I had managed my time in a more efficient manner, however I will be working a lot on to get my prototype finished before the midpoint presentations in early February.

Intended Changes

Next month I intend to implement that Google Maps API into my webpage and start making some custom pins on the map.

Supervisor Meetings

This month I did not have any supervisor meetings, however in my last meeting Frances gave me some ideas and topics to research and that's what I have been doing since then.

January

My Achievements

This month I completed the Google Maps section of my application and it is working exactly how I wanted it to.

My Reflection

I am happy with my progress this month and I am back on schedule with my project plan.

Intended Changes

My main goal for next month is to start setting up the visit locations section of my application.

Supervisor Meetings

This month I had one meeting with my supervisor, in this meeting we discussed the current status of my project and went over some details for the upcoming presentation.

February

My Achievements

This month I had my midpoint presentation, I am happy with the result I received.

My Reflection

I am happy with my progress this month I got lots of work on the project completed.

Intended Changes

My main goal for next month is to start implementing some more functionality into my application.

Supervisor Meetings

I had 2 meetings with my project supervisor this month, the first meeting was to prepare for the midpoint presentations and the second meeting was a discussion about the results from the presentation.

March

My Achievements

I finally got rid of an error I was having for almost a week the error was in the Google Maps section of my application.

My Reflection

This month I made a lot of progress on my Android App. I finished adding content so several pages of the app.

Intended Changes

Next month I plan on finalizing all aspects of my project.

The Android Application needs some final adjustments along with finishing the testing section of my documentation.

Supervisor Meetings

This month I had 2 meetings with my supervisor, the first meeting was a discussion about my progress on the project so far and ensuring all deadlines will be met.

The second meeting was looking over my documentation for the final time. I got some helpful tips on how I could improve some of the sections of my documentation.

April

My Achievements

This month was by far the best in terms of achievements. Finishing my final exams was a strange feeling, finalizing the project documentation and sending it off to be binded was a huge achievement for me.

My Reflection

This month I made all of the finishing touches in regards to my Android App. I finished adding the content so several pages of the app. And added the rest of the pins to the map.

Intended Changes

Next Month I will have to present my project and attend the project showcase on May 25th. I will have to create some slides for the presentation.

Supervisor Meetings

The meeting for this month involved looking over my documentation for the final time. I got some helpful tips on how I could improve some of the sections of my documentation.