Limerick Institute of Technology

Limerick Street art Map App

Software Report

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Introduction

The main focus of this chapter is to identify and explain the methodology used during the development of this mobile application. Also it will outline the functionality that requirements of the project along with all the tools and technologies that were apply during the implementation phase. The context of the social sharing application being developed for this project is related to performance and acting. The project main focus is to create social art sharing application for both secure and useable, so users do not worried about their privacy being misused and they can enjoy the interesting art work sharing to the people.

During the research phase conversation proceeding regarding Android and iSO architecture and its security, and some article with studies carried out regarding Android application and it's reviewed.

An important aspect of the research is connection security of the application and as well as usability of the application by introduction of API.

As we know that now a day's mobile application development is growing in popularity every year, but with its popularity grows the higher demand for that product and higher demand means less time to do it. That means while development of the application or a system their might be changes to have a vulnerabilities that can be used against user. So here I have been discussing about

the application should be reviewed as a security point of view before beginning the application.

Development Process

4.1.1 Agile

To support in development of the application in agile methodology was adopted. The aim of developing within the agile methodology is to set iterations or sprints, usually a short period of time, in that an aspect of the application is implemented and ready for release at the end of the sprint. Developing the project in agile methodology its breaks the project into separate areas, for instance web service, the core of the reactive native application, which consisted of the graphical user interface and the input and output of data. The status of the project is reviewed weekly with in meeting a supervisor which helps in identifying the any issues that may have arises during the development in previous week. Because identifying them in early of the stage, that could be easy to fix them at this stage and avoid a major problem later on in the development process. Also agile incremental and iteration approach makes it ideal for project development where change of requirement might occur and agile is best suited to adapt to these changes. Big project with this functionality level require ability to revise certain aspects of design requirements or it can implement during development process. This can be result of expectations becoming higher from the end users in relation to the flexible inclusion development of application. At starting of each week user stories were picked to develop during specific weekly sprint to develop and implement. Once implemented feature were shown to test user to test and receive feedback at the end. Suggestion made by test user were considered and implemented into application during the next print week.

4.1.2 Project Management Software

Mostly in industry, software packages such as TFS and JIRA are used to track the tasks that need to be undertaken in order to complete a sprint and after that release a new version of the software. Team foundation server is flexible tool when it comes to strategies around Team project creation. Because of it evolve three key

concepts of any organization and utilize the software development in its day to day work. For instance project, product and organization unit, in the TFS each of these areas is very important to planning the project set up. For instance in your organization have a multiple project which have no interrelations when it comes to code sharing, it may be beneficial to create different team project collection.

4.2 Analysis & Requirements:

The analysis requirement is an important phase in the development process. The Analysis requirements determine the features and functionality that will be developed in order to successfully complete the application. During the process the main sources where mostly focused on in order to determine functionality requirements. One of them was to analysis and review functionality of other existing application on the internet and play store.

4.2.1 Functional Requirement

The functionality requirements describe the capability and main functionalities of the application. The main functionality of this app is to view points of interest of the street art of limerick city, and see your position and navigate to the art work, also view the photos, position and information. Send your photos with GPS location to see them publish to the map.

- Ability to add the new picture
- Ability to delete the picture
- Ability to create the user account
- Ability to disable the user account.

4.2.1 Non- Functional Requirements

- During the development where there are a functionality to describe the application on other hand there are few non-functional requirements were considered. Non-functional specify how certain system are being used operate.

4.2.2 User of the system

The user of the system is the people who are interesting to the using and sharing their interest to street art. In this app people can add the photos to the map and or just visit in this app to see the street arts. The home screen rotates through a few street art images that probably available in the featured images. Clicking on the featured images leads to more details about the arts, Also it will provided the more information on the location of the piece of art. Also as it is a social sharing app people can give stars than we come to know how many starts it has received. As you switch to a map view an update button to update the app and images a new tab and there would be a artists tab. Map view defaults to a map of Limerick city and its streets, with black pins representing the location of the arts works. Also if you tapping on the pin it will displays a thumbnail view of the art which will take a few minutes to load the images.

4.2.1.2 Data Entry

Data entry of this application

4.2.1.3 Core Functionality

4.3 System Design

Software beginning point is system design. System process defines all architecture modules, interface, components and data, once done requirements gathered in process of requirement extract can be satisfied. During the process it was decided which components where required for system to be implemented and also all requirements should be met. Component which were decided upon MySQL database, mobile application. Mobile application needs to be able to communication with the database, but mobile application does not able to direct communicate to the database. Mobile application need to be depending on some component to retrieve data to the database. The logic of the application will be able to perform an action like add delete and update the database. This mobile application will be deployed on the android and iOS.

4.3.1 MySQL Database

Having extensive MySQL database meant implementation was vital task as it needed to be developed before any work could be started on the mobile application. Once all tables for all fields in them were defined it was just case of

adding tables to newly created database in phpMyAdmin. Performing such detailed design of the MySQL database during the design phase meant that implementation of the database was relatively minor task. With all tables defined data types for all fields for all records also defined it was simply a case of creating the table using phpMyAdmin. Development of database locally gave advantage when developing it as it was easy to make any change to tables when developing mobile application. All important data had to be populated into a tables before it count have been exported to server. Using the phpMyAdmin one is able to export database to dump file with .sql extension with all table and data counted it. This functionality is mostly used to create back-ups for database but you can set up database on different server. This sql dump file once executed then it will populate database with the same information as original one has. During the development database was first created and implementation of the MyphpAdmin and then using export method.

4.3.3 Class Design

4.3.3 Architecture and Design Pattern

4.3.3.1 Architecture

4.3.3.2 Design Patterns

Chapter 7. Configuration

First Step in the development process is to configure the react native, because before doing anything we need to install few things to set up the environment for React Native.