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Literature review

Limerick Street art Map App

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INTRODUCTION:.....	3
WHY ARE YOU DOING IT:.....	3
CHAPTER 2.....	5
REACT NATIVE:.....	5
WHY NATIVE REACT:.....	6
1.1 REACT JS:.....	7
ANDROID STUDIO:.....	7
GPS COORDINATORS:	7
WHAT IS GPS:.....	8
PHP:	8
TOOLS & COMPONENT:.....	9
REACT NATIVE MAP VIEW:.....	9
IDE:.....	9
NODEJS PYTHON JDK8:.....	9
REACT NATIVE CLI:.....	10
ANDROID STUDIO.....	10
DATABASE:.....	10
REFERENCE:.....	10
BIBLIOGRAPHY.....	10

CHAPTER 1

Introduction:

Limerick Art Maps is going to be an interactive map of Limerick City where people can click on links on streets and see and update the new street art photo's to the maps if it is not there or tag to the friends.

This research was initiated by my interest in Street art maps. As I began my research into the project of Street art maps then it come across to explain the street art as a form of visual art created in a public area, usually prohibited art work performed outside the background of traditional art venues. Street art gained popularity during the graffiti art booms the early 1980s, (Sadatiseyedmahalleh, 2015) even today it continues to be used on a large scale inside of the city centres and towns in various techniques and categories to convey messages. Therefore, a difference in a cultural has appeared in many cities since the late 1990s, also street art placement of unassigned artwork in public places. Different people can understand it differently; some people can see it as a firm of activities. On the other hand, some people may see it as a illogical response to display the street art simulates formal understanding of crime, law culture and art. In addition street art acquire a very old history going all the way to the ancient inscriptions. Sometimes it has become a popular issue, because most of the people do not know that whether it is crime or art. Street artist have been blamed for vandalism, indignity and intention to ruin of property illegal intrude and against the social principles. In the modern times the use and application of street art have changed, nowadays street arts is a promotional tool which is used to change the meaning of the landscape elements that dominates current cities, foster social inclusion in the city advertising industry as well as creates the tourism industry for the cities.

Street art become popular in the 1970s and 1980s but it's gained a more following in the 21st century, lot of people believe the explosion of technology such as mobile device and internet lead this form of art into success. Artist can use street art to speak to other kinds of people they can give a useful message to the people through their arts in the street wall. Street art can completely vary in styles and meaning, just like other art forms it is used to express feelings, emotions or send an important message. Street artists use the inspiration from many sources which are the web site, digital media famous old art pieces and world problems. Street art also is other form of art has many other terms or variations of itself. The terms urban art guerrilla art post-graffiti are common and represent a more art inspired form of street art rather than vandalism.

Why are you doing it:

For my research I got the inspiration from the cork street art in the Facebook page. Also my main motive to develop this kind of mobile app to promote the Limerick street art to the people and get more attention to it. Also I saw some street arts in the Limerick city centre, which give me the aspiration to pick up this kind of subject where I can gain more knowledge and understand it from insider's perspective. The project which I choose will help me to get deeper understanding of the relationships between individuals' art and a public space.

As walking in the Limerick city I saw one art that, I can't decide if the eyeball ice cream cone or the hello kitty tattoo is favourite thing about this piece, but I would say it is definitely eye catching. The work of artists Smug it was commissioned for the Make a move Festival and has been captured by many people in the city. This is located on Castle Street Limerick. In this app I will give functionality to capture the picture and share it to the social network where GPS coordinator will give the exact location and the time when this picture clicked and shared include the location of the picture or the arts which created in the street wall. Also as the authorisation point of view some people may have objection to create the art in the local property where they can send the authentication to the local city council to approve the art which have been created in the local property. Many of the interesting and exciting features of street art follow from this consensual method of production these works are subject to alteration and destruction and hence street artists accept the resulting ephemerality of their work, these works are often illegal. Street artists have a strong incentive to remain anonymous to the public at large and to the relevant authorities in order to avoid getting caught. They neither have an implicit interest in being known within the street art community, recognized by the public at large and neither known nor recognized by police and other authorities who might legally take action against them. In this respect being a street artist involves a delicate balancing act between remaining anonymous and unknown to authorities, but established oneself within the street art community and public at large by having one's work recognized and associated with one's pseudonym.

CHAPTER 2

What technologies are using: In the technical research I came across many technologies, where my main research was to find an open source map API and the appropriate tech language for my mobile app. In my research where I found the different map API as example OpenStreetMap, Google map api under this api there are sub type of the API.

Open Street Map: This is a free wiki world map, and open volunteer driven initiative to collaboratively a map of the world and release the map data under a free and open license. There is actually many different API around the OpenStreetMap in the ecosystem, but my main concern is to download the data in api or create the raw data on it. In the OpenStreetMap is provides read and write operations on the raw map data of the openstreetMap database. It is actually primarily for openStreetMap editing software and although any developers can create a new editor tool this is not a small undertaking and should be carried out with careful consultation with the OpenStreetMap community. Based on free OpenStreetMap data, it is possible to create beautiful accurate and fast maps with native vector rendering and live customizable styling directly on a mobile device. One advantage of using the Open street map API is the map tiles can be easily displayed in custom native mobile applications on Android or an ios or any other platforms. To work on it, developers can load the map tiles online from a tile server of a choice or implement offline maps in the app displaying the maps from deumloaded or bundled tile extracts.((GmbH))

One most important reason to use the Map API is that I have to decide which map is suitable for the integrating on the react native app on android and ios
I did my research on Integrating Google maps into React Native App on Android. In this post they clearly show the step by step integration of the Google Maps into React Native App. (mehdiyev).

React Native:

The Technology I'm using in my project is React Native which can be work on the both mobile application android and the ios. React Native is a JavaScript framework for writing real natively. It's based on Reactive Facebook java Script library for building user interfaces, but instead for targeting the browser its

targets the mobile platforms. As we can said that now we can write the mobile application that looks and feel truly native. This all happened because of the java Script library, React Native is known for its speed and efficiency. It is best suited for app and web development. That's help a lot in reducing the cost and time of application building. (Mehul, 2018)

However, it provides an easy and convenient environment for mobile while using the debugging tools. As we know there are different type of React Native tools which play a most important role in accelerating the speed of the app development. As Pete Hunt states that React is designed to encourage the reusability of components that developer can creates. React use the JavaScript, as we that it is a flexible and powerful programming language to develop the large scale of applications.

In the React each component works separately from one another, which allowing for minimal and efficient changes to the DOM. As Facebook developed one another feature for React is the use of JSX, an alternative to standard JavaScript syntax when creating components. JSX similar like HTML and HTML5, which making it's readable to software developers who are familiar with those coding languages.

As we know that React has been gaining the more popularity in software development because of its flexibility and reusability that makes it for the ideal to creating a newer software project.

Since 2015 React Native become more beneficial for developers or a team who are on a budget as the application can support both major platforms with the same code base. Kociecki writes that in his latest React Native project, the development time took 33% less than if they had been developing iOS and Android separately. Also development of a React Native application does not require the native developers who have a higher salary on average.

Why Native React:

The fact of choosing react native to develop mobile application is that it allows perform complex tasks in a simple code. This framework uses the UI library created by Facebook to make more straightforward code for implementing and executing React JS. Also in the react native mobile app had reload feature. It allows us to operate on real time code changes and make corrections while the app is loading. The foundation level programming uses the same code for both OS. It's like deploying the same app to all types of the mobile operating system. Also it make easy to recompiling the app. (Ratnottar, 2019).

1.1 Node JS Python

React JS is a JavaScript library for building a fast and interactive user interface. Typically it is used for web development, as we could say that it has changed the way that we think about the front-end development. React.js has grasped the interest of the open source community and it is here to stay. However, at its core React is actually a library framework for the programming language JavaScript, which is used in web development.

1.2 React architecture

React and React Native both of these use Flux architecture to handle the data flow within the application. The main proposed of this architecture is to composed by three modules

Where it has core modules which includes the business logic and the state of the application this component is implemented using the Redux framework. On the other the mobile app which implemented as a standard React Native application using containers and components.

Android studio:

GPS Coordinators:

1.1 GPS

GPS is Global positioning system which is based on satellite navigation system made up of approximately 24 satellites. GPS works in any weather conditions, in anywhere of the world. The Department of Defence in US originally put the satellites into orbit for military use, but they were made available for all civilian use in the 1980s.

1.2 Global Navigation Satellite System

Global Navigation Satellite system involve the signals from the US governmental GPS, the European Galileo, also Russian Glonass and the Chinese Compass, Indian IRNSS (Choudhary, 2019). At the present only GPS and Glonass are operating, but when using the side by side signals increased but they not yet proved their strength. The possibility gain when several satellite is the we could see more satellite at the once, and which give us better GDOP and better accuracy in turn result.

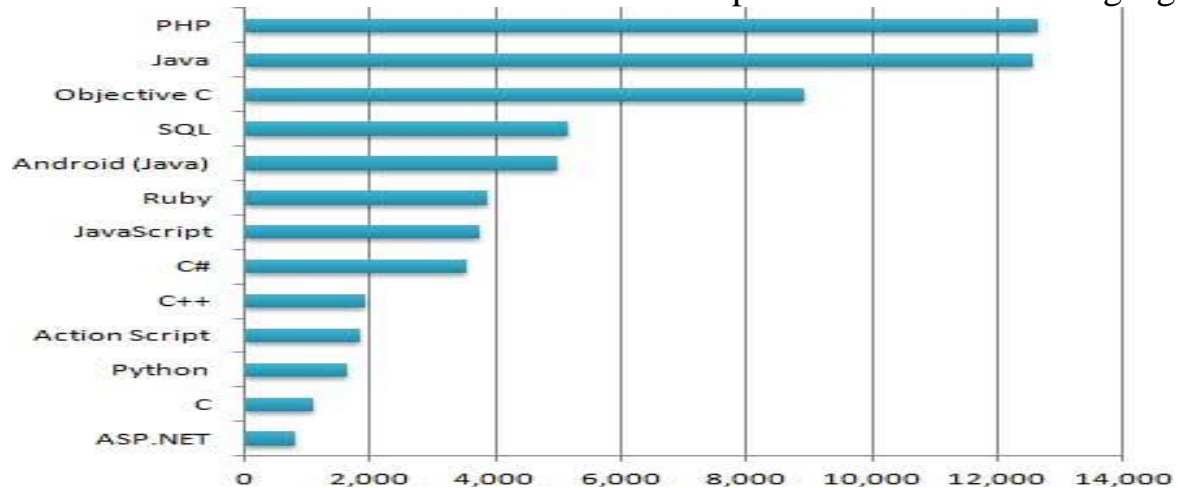
1.3 GPS receivers:.

PHP:

In my application I'm using the PHP to create back end functionality. The front end built app is using the react native (React) language but all the database logic will controlled through a script written in PHP. As in my research I found the Kik App, this is a framework that allows the creation of the mobile application on platforms including Android and iOS from the very simple PHP code. This tool interprets the language.

Why PHP: Because the PHP is among the most popular language for corporate web development. (Raheja, 2018) Also it the most frequent choice for the back end application. If I go for the usability of the PHP language, here is the chart to

show that PHP is more usable compare than other languages.



Tools & Component:

React Native component libraries can be a huge time saver as working on the react project. React is open source JavaScript library that helps in building user interfaces for the both web app and mobile apps. it includes n number of components that will use in while developing app.

React Native Map view:

This is a one of the React Native component libraries that offers map components for Android and IOS is react native map view. In this component have a lot to do customize the map style that can be able to change map view position and tracking the region or location and make the points of interest clickable on Google maps. Also we can enable zooming in to specified markers or coordinates. GPS system to fetch the location and give you nice street view, also it has location search functionality.

IDE:

Visual studio code: Visual studio source code editor developed by Microsoft for window, Linux macOS its included support of debugger git hub.

Node.js: Integration of the node js cli all other component included on this tool.

Apache sever for the share photo.:

React Native CLI:

Android Studio

Database:

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