

DT282Project Proposal Form 2017/2018

Student Name: Céin O'Rourke	Student Number: C14427818
Mobile Number: 0834150291	
Project Title SessionOn	
Summary (approx 200 words) My app idea is a social app that will be location based. So a user creates an account and gets set up add friends etc. Then when the user goes out to his local pub for example and checks in saying what is on. Then using location, geo mapping and boundaries set by the user their friends will get a notification and be able to look where they are and see who is with them also, what event is happening. They can then choose to join the session or look in their radius to see who else is out closer to them. The app will include a messenger for quick conversation. The app will continuously process data to give live updates, so if people move etc. One's account can be public or private as they can choose. I will have it connected to an API that connects to a cloud to save locations and accounts. The problem I want to eradicate is the whole group chat scenario when someone tries to organise something and it just falls through.	
Background (and References) The core aspects to the project are: Location, GPS, Geo boundaries(radius),Gathering date, Data processing, API. Location using a placed GPS to check in and allow others to see users location (Similar to snap map developed by Snapchat) Geo boundaries so only notifying friends of user within a certain radius (Like Tinder's Radius function) Gathering data sending to the API then to the cloud, Processing location data to give live updates to where a user is. Optionally using Firebase for real time data base and authentication and cloud storage and services.	

Proposed Approach

To control the development of my proposed project, I plan to follow a 5-step system:

- Inception
- Elaboration
- Prototype
- Build & Test
- Deployment

Research into the following areas I require for my project:

- Location based apps
- Geo boundaries/Geo mapping
- Firebase or web service/API

From the outset of my work, Researching and learning the required technologies is key for me. This will allow ease of extension in the future. I believe working on the android platform is a step in the right direction for me. Making small location based apps including geo boundaries and live updates of locations. Investigate how I can integrate the different functionalities I require to work together.

Deliverables**Deliverables**

- Interim Report.
- Project dissertation.
- User manual.
- A functioning system for Demonstration.

Priority Features:

- To upload and managing documents user locations.
- To record user data and process.
- Real time updates of location.

Secondary Features:

- Source code for the project.
- Test data for demonstration.
- Track communications to and from users.
- Allow easy deployment of app.

Technical Requirements

Java, Python, Location technologies, Android Studio, API, Firebase.

Project Reviews – Please include reviews of two of LAST 2 years projects from either DT228 or DT211C.

Project 1

Title: Transport Dublin Android Mobile Application

Student: Paul McKenna

Description (brief):

Mobile transport app, The application will use different profiles chosen by the user to determine the best transport option available to the user. These profiles were developed as personas, considering the types of potential user of the application and their needs.

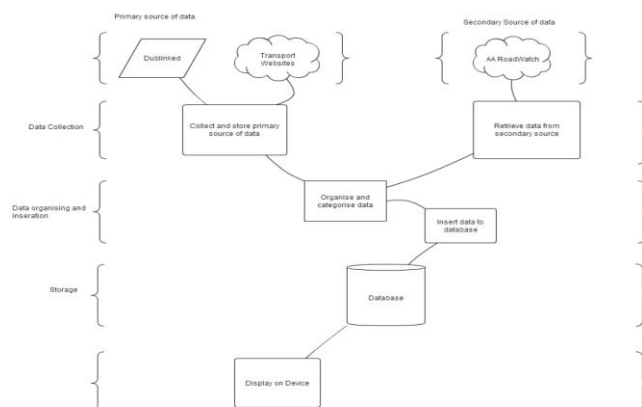
What is complex in this project:

Mapping This project requires that the map allows dynamic updates. It is important because the user will be moving around and the location will change so the map will need to update. It will also need to be able to display the user location and be able to display a marker layer on top of the map. Google maps are free to use if you sign up for Google play developers console. In order to gain access to maps on your app you have to register your app and get an API key. It is completely free to use and is well documented. It would be the most popular choice when creating an Android application. Code Snippet 5: Code to add permissions to get location of user Access coarse location uses the mobile network to find the location. Fine location uses GPS. The LocationManager also allows the application to receive location updates at a set interval of time or distance. Code Snippet 6: Code to get the location of user and request updates The LocationListener class receives notifications from the LocationManager when the location has changed. The LocationListener has four default methods for using location updates:

- onLocationChanged() - Called when the location has changed.
- onProviderDisabled() - Called when the provider is disabled by the user.
- onProviderEnabled() - Called when the provider is enabled by the user.
- onStatusChanged() - Called when the provider status changes.

LocationManager and LocationListener are both implemented inside the map activity. The onLocationChanged () method is used to update the user's position on the map.

What technical architecture was used:



Explain key strengths and weaknesses of this project, as you see it.

For me the mapping is a huge strength that I can integrate into my own project. Also the user interface is also useful for my project. Don't see any weaknesses.

Project 2

Title: Rendezvous – Map Based Event Planner

Student: Gavin O'Mahony

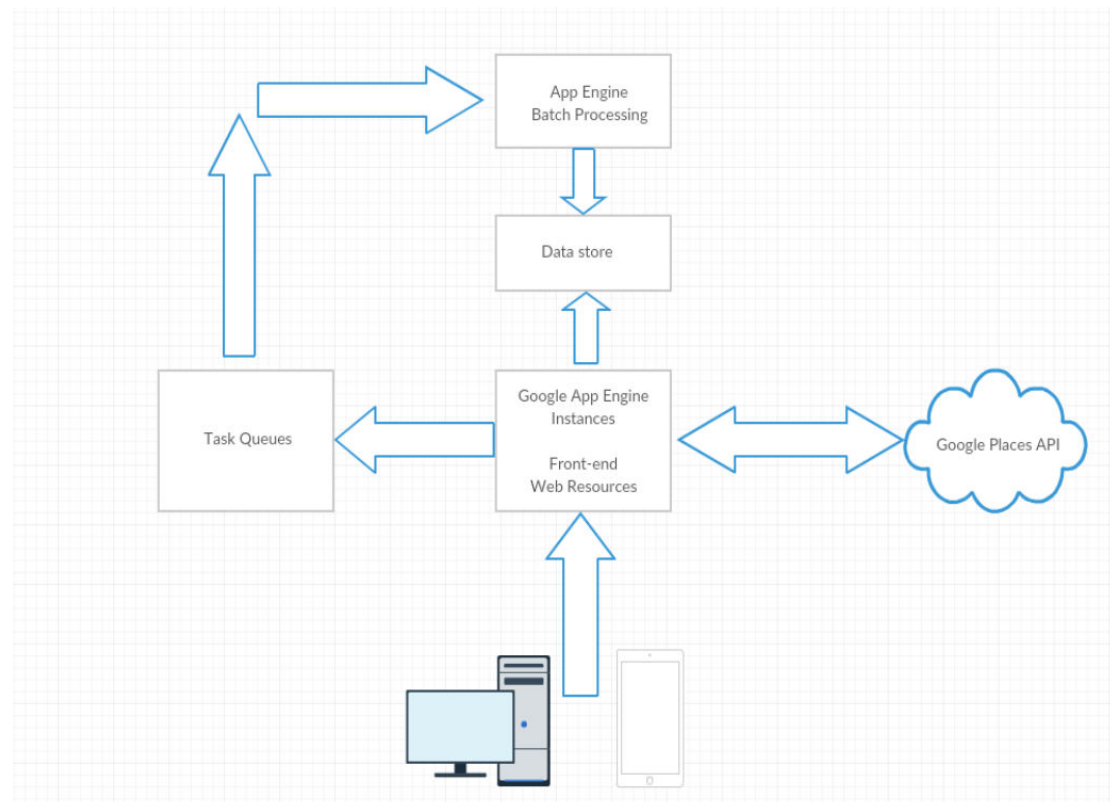
Description (brief):

The goal of this project was to create that platform. At its core is the principal of browsing place data within a given distance of the devices current location, based on a search term given. People then browse events that match both their palette of interests and fit within their given distance criteria and can then join if they so wish.

What is complex in this project:

- API and Database Integration
- Date Matching and Distance Calculations

What technical architecture was used



Explain key strengths and weaknesses of this project, as you see it.

The strengths I see is the data processing and API work. Distance calculations. Weakness is it's just a website not an app.

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Proposal Sign off:

Lecturer Comments

Little Concerned regarding the complexity of the interacting components of the project, but if completed, this has the potential to be a very interesting project. User Testing could be a Challenge

Student Signature



Date

3/10/2017

Lecturer Signature



Date

15-11-2017