Report on “Dublin Bus Station- Android”

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Link to github:

<https://github.com/skhassan24/Dublin_Bikes_final-Commit1>

Link to APK file:

<https://github.com/skhassan24/Dublin_Bikes_final-Commit1/blob/master/DublinBikeStation.apk>

**Challenges faced during developing an application**

Android is one of the most popular OS for the smartphones and has some most basic challenges to overcome. There are several challenges from developing and designing faced by the developers every time they work on an android application.

1. Hardware Friendly

Building an application which is compatible with different sizes and shaped devices is a challenge for amateurs on this platform. Choosing the right design that gives screen flexibility and adjustment is important task.

1. Software Compatibility

For android developer it is difficult to keep up with all the versions of the android. Running the same application with different versions of android is the main challenge here. Developers are required to fix the bugs on a systematic manner.

1. Simple, pure and interactive

Users love simple and clear applications always. The challenge to design an application which is self-descriptive. Interaction is as important as simple and pure design; however it is time consuming.

1. Performance and Battery life

These two are the main aspects of android app development. The challenge is to design the bug-free application with less battery consumption. Lots of images and visual properties may reduce the performance of the application.

1. Security

Security is the kind of important concern from application developers. Gap in security can lead to information misuse and mishandling. There is a lot of work required to address security issues and malware troubles.

**Learned from the process**

As the application is Dublin bus station locator lot of things are learned from this development.

1. Setting up the android studio for developing the application.
2. How to parse the JSON. What are the different ways to parse JSON.

InputStream is = getActivity().getAssets().open("yourfilename.json");

String jsonLocation =AssetJSONFile("formules.json",CatList.this);

There were many parsing techniques for JSON as searched for the same on stack overflow.

1. How to collect the data via an API
2. Getting the different API keys how they work.
3. Linking an intent to one another
4. Using the suitable design and activity.
5. Integrating google maps in the application.
6. How to get keys from google developer console and mapping in manifest file.
7. Connecting to the JSON based Dublin bikes API and parsing the data to plot the bus stations across the city.
8. Developing a simple, clear and understandable application with easy to use dashboard.
9. Installing/Deploying the application from android studio to mobile device.
10. Deploying the application on Github.
11. Understood what the purpose of Github is.

Link that I used to get the data:

<https://api.jcdecaux.com/vls/v1/stations?contract=dublin&apiKey=f8dd38132b6d12c3d8a8ec63e21837345e0f16bf>

Please find the screenshots of the application with activities below.



