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**Project Title : A MOBILE APPLICATION FOR NEARBY FIELD  
COMMUNICATION USING CROSS PLATFORM**

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## **TITLE: A MOBILE APPLICATION FOR NEARBY FIELD COMMUNICATION USING CROSS PLATFORM**

### **ABSTRACT**

In recent times the usage of mobiles is being increased rapidly, and for developing applications for the mobiles, the use of mobile technologies is rising at an alarming scale. Due to this, more powerful and efficient mobile applications are needed in order to keep up with this trend. Since there exists several mobile platforms (iOS, Android, etc.), each one with different SDK (Software Development Kit) tools and specific development capabilities, application development becomes more complicated and expensive. The challenge is to come up with a solution that allows us to deploy in different platforms using a single SDK tool and maintaining the same performance as the native application. A suitable solution is cross-platform used to run same application on different platforms and to develop a mobile application. The softwares required for developing mobile application are Ionic Framework and Angular JS. In this when the user opens the application, it spotifies by use of the location sensors available in his/her mobile to capture the latitude and longitude of the current location. Those GPS co-ordinates are sent to the location sensor present in the application server side. Thus the location sensor communicates with the near field sensor and checks with the distance the user has mentioned and then produces the results based on his search. These results are displayed to the user and from there the user can get directions and also contact to the place if needed. Spotify provides the best solution for the users who regularly make use of the maps for searching places nearby. It also helps the people who are new to some city and want to try out some new things, for them the application will be of great use as they can find each and everything nearby. Spotify accommodates new technologies that are currently being used in the industry for developing applications and a database known as firebase to store the data, this database is implemented by Google . The processing of input output is as follows, user can select the accessibility option for the location sensor, then gps co-ordinates trap users latitude and longitude data. Once data is obtained, user selection procedure occurs. When user provides the input, it sends the gps coordinates to the location sensor to mark the exact location and from there nearby elements are gathered. In this application, with use of firebase the data processing will be faster and results will be produced in no time. This project makes the user



interface easier with provided labels and also we don't have to type out every time just open the application click on the label and you are ready to go.

### **Keywords**

Location sensor, nearby field communication, Angular JS, Ionic framework, Cross platform.

## **LITERATURE SURVEY**

### **EXISTING SYSTEM**

A native mobile app is an application which meets the requirements of a particular operating systems using its own SDK. When developing native applications, developers implement an application for one specific target platform using its software development kit (SDK) and frameworks. In case multiple platforms are to be supported by native applications, they have to be developed separately for each platform. This approach is the opposite of the cross-platform idea and will serve as a point of reference . Users will install native apps from the platform's app store or other platform-provided installation means. They receive an app that, by its very nature, has the look and feel of the platform. In contrast to separate native development, cross-platform approaches allow developers to implement an app as a single code base that can be executed on more than one platform. We distinguish between approaches that employ a runtime environment and those that generate platform-specific apps from a common code base at compile time. The latter, generator-based category includes model driven solutions and cross- compiling. Up to now, there are no production-ready solutions of this category. Hence, we concentrate on cross-platform solutions that combine the source code of an app with a runtime environment. This environment interprets the app's code at runtime and thereby executes the app. The runtime environment has to be specific for each mobile platform, while the app's source code is platform-independent. Three different kinds of environment can be identified: the Web browser, a hybrid of Web and native components, and self-contained environments.

#### **Disadvantages of existing system:**

- It runs only on specified SDK

## PROPOSED SYSTEM

The popularity of mobile devices and tablets among users has developed a new market of mobile applications development. Cross platform mobile app development has been gaining popularity among mobile app developers. The apps developed are easy to use on different platforms such as iOS and android. It can be potentially faster to develop a cross platform mobile app rather than a native app for iOS and Android. You can leverage one codebase and customize for multiple platforms instead of creating a new codebase for each platform. Making one cross-platform apps functional across all platforms can also be more efficient than building multiple native apps from scratch. Cross platform Development environments such as Appcelerator and Phone Gap have a huge library of plugins, enabling easier access to plugins over either of the mobile platforms. Web developers find it easier to use cross platform frameworks, as they are designed for simplifying scripting languages. HTML, CSS and JavaScript are the backbone of majority of internet applications, making it a natural transition over various platforms.



Figure 1.1: Proposed system



## **TOOL/HARDWARE/SOFTWARE REQUIRED**

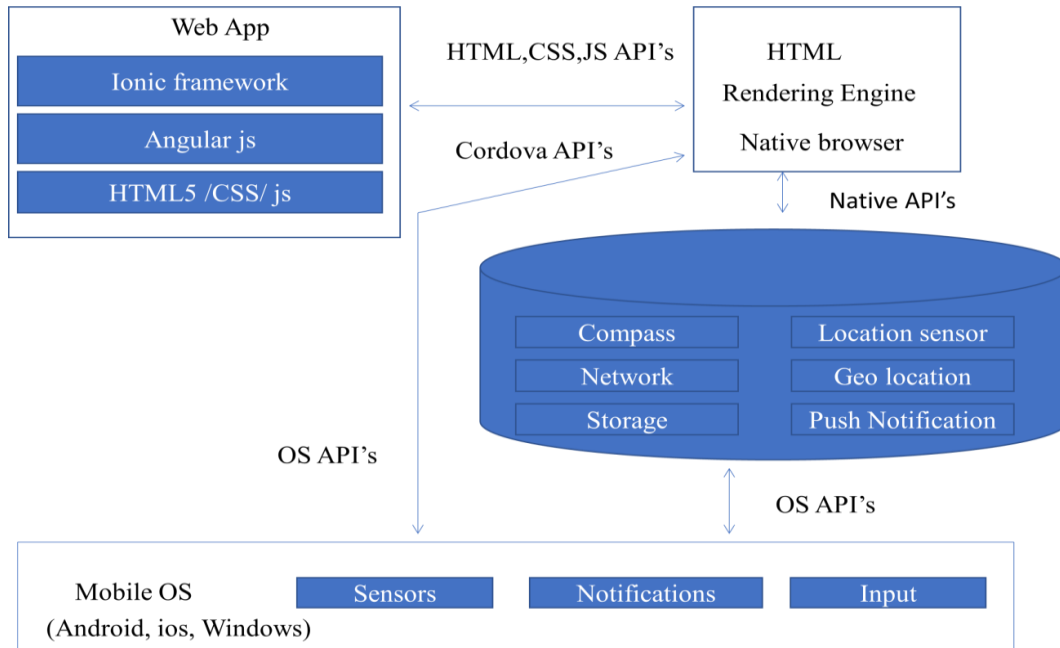
### **Tools/Software**

- Project developed using :
- Operating system : Windows, iOS, Android
- Coding Language : Angular JS
- Framework : Ionic framework

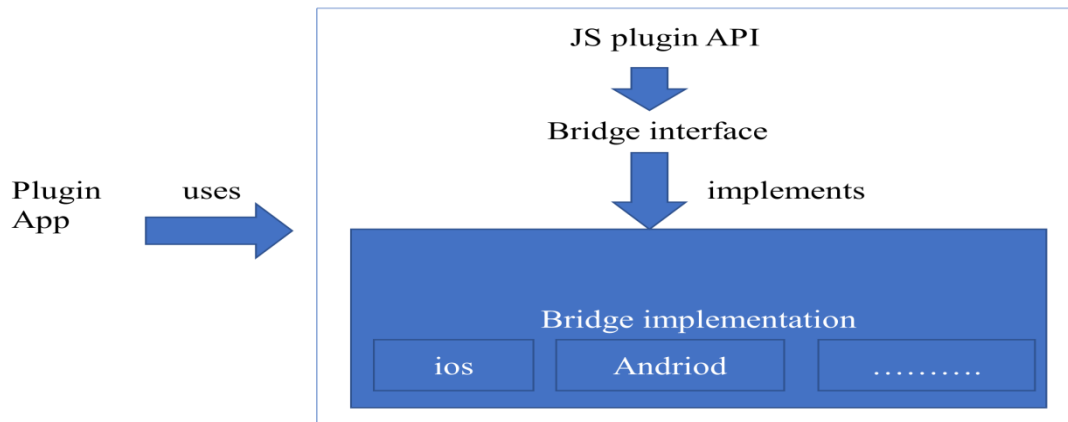
### **Hardware**

- Mobile: Android, iOS, Windows
- Ram : 3gb

## DESIGN, METHODOLOGY, IMPLEMENTATION



Cordova API's	plugins	CLI
	JS Bridge	Controlled webview



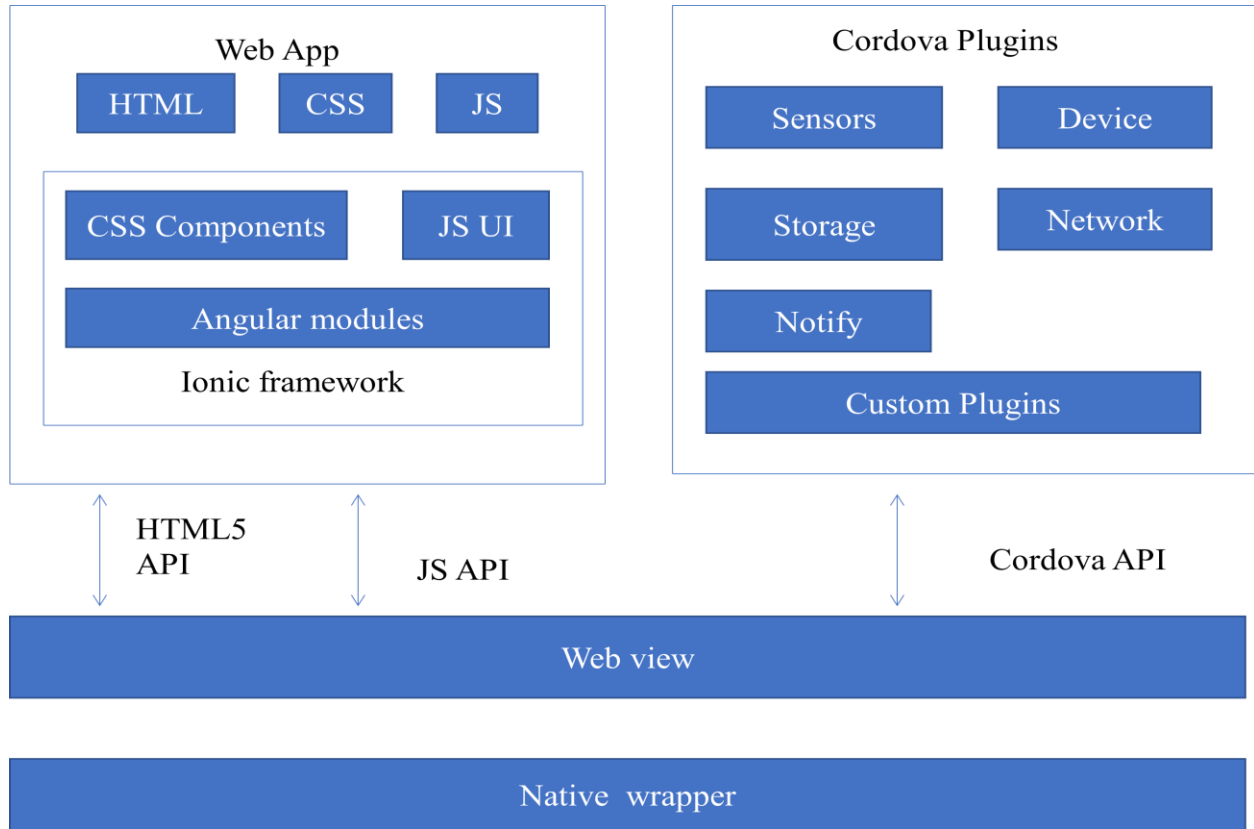


Figure 1.2: Implementation of Spotify(project)





## **RESULT**

Spotify comes up with a solution that allows us to deploy in different platforms using a single SDK tool and maintaining the same performance as the native application. With these, it also having a advantage of eliminating typing methodologies i.e., No need to type the content in the search box it will automatically spotifies based on the click.



## CONCLUSION

With this cross platform mobile application we develop a single code and one product for multiple platform. This application also helps you to get the data of what are the elements present around you in a click where it eliminates the typing methodologies.



## OTHER REFERENCES

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