International Journal of Scientific Research in Computer Science, Engineering and Information Technology
© 2020 IJSRCSEIT | Volume 6 | Issue 2 | ISSN : 2456-3307
DOI : https://doi.org/10.32628/CSEIT206250

COS-Chronicles of Sites

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ABSTRACT

This work is developed to increase the efficiency of users to access the information they require during a tour or travel, by providing them access to different features and to improve their tour or travelling experience. This technology is location-based service application. In this project, we are trying to provide the users, a fast access to information that they require, if they are in a given range of the location that they want to visit. This application also provides various other features that include preference feature that saves the preference of user and suggests the user, the locations that are near user according to user's preference (ex: religious), bookmark feature allows users to bookmark the locations that they want to visit and have access to those locations information anytime they want.

Keywords : Efficiency, Location-based Application

I. INTRODUCTION

Efficiency is a very important factor in IT Industry. Which software or application or website provides efficiency or ease in providing the service or information that the user wants, that software or application or website will be used by the user. If there are multiple applications available in a market that provides similar services, then users will obviously use the one that has higher speed or quality in providing results or the one that provides more features. As there are bulks similar of applications available in the market so if your application provides your user something unique then your application will have a high chance of success This research will be to develop an application that will help users to have a faster and more efficient access to the information that the users require during travelling or a tour through an application, through mobile device (Example: Smartphone) that user may carry with them. If the user is in a specific range from the historical location or a tourist site, then the user can access the information (In the form of texts, Images) about that location. This application has many more features such as preference feature which will save users preference in profile to show user places nearby according to that preference such as religious place like church or temple. The feature to bookmark nearby location to freely access its information anytime. Revie system through which users can view reviews of people who have already visited the location. The Direction feature that allows the users to find the required directions to the locations that the user may want to visit. The Articles feature that allows the user to view different articles related to tourism.

Main features of the system can be summarized as the following:

1. Two click fast access to information of locations that are near user
2. Direction to those locations
3. Articles about tourism around the world

4. Bookmark feature that allows user to add locations that may interests user
to list of bookmarked locations.
5. Preference feature that allows user to store his/her preference in profile through which the nearby locations to visit will only show locations that are categorized within user's preference (Example: religious)

II. METHODS AND MATERIAL

For the design of the front-end of our application we have used the android studio as it is widely adaptable with a vast amount of libraries that can be easily used with other software's and it has high compatibility too. We used the Android Studio to completely develop the frontend by using the keyword such as Edit Text, Text View, Image View etc.

We used the Google API for its large and widely used interface that can e easily used by both young and old. Then used the keyword such as Fragment to make use of maps to allow the users to get directions to the location that they want to visit.
We used the Firebase for making our database as because of its advanced technology that allows it to be used without the need of an API and its high compatibility with Android Studio. And also because its easier to share the database through two different Apps simultaneously.

III. IMPLEMENTATION

We implement the COS Chronicles of site application with the help of Android studio, Firebase, Google API.

Android Studio was used to develop the frontend of application because of its advantages such as Gradle-based form support. Build up devices to get execution, convenience, adaptation similarity and different issues. Layout based wizards used to make regular Android designs and components efficiently. Editorial manager that enables users to drag and drop UI components, the alternatives to see designs on various screens and making them work together via coding of frontend. Support for building Android applications on portable devices.

We use the google API for the use of directions as well as maps related features of the application. With the Maps SDK API for Android, we can add maps based on Google Maps data in our application. The API automatically handles access to Google Maps servers, data downloading, map display, and response to map gestures. We used API calls to add markers, polygons, and overlays to a basic map, and to change the user's view of a particular map area. These objects provide additional information for map locations, and allow user interaction with the map. When the user opens the application then he will be greeted with the homepage where the Google API is used to create a map that automatically shows the location that are nearby the user that have a meaning to visit during any travel or tour. When the user clicks on the marker of those locations then the application gives the information about those locations to user from the Firebase as this process does not involve any API between database so it is highly fast and advanced.

For database we used Firebase because of its advanced features such as accessing a data set using two different applications, we used this feature to develop two apps for our original project, one for users and the other for admin and we then make use of the firebase registering both project under the same dataset and allow the dataset to be used by both project Simultaneously then for login purpose also we made use of the firebase through which we used google account of users to register and login on the application through their email.

IV. RESULTS AND DISCUSSION

There are many functions that are present in the application to enrich the users experience in using it. After the registration the user's data gets stored in the firebase and the user can use the login, for both of these functions we use firebase that allows us to use google account that most users are sure to have as means to register with application.

After the login the user is introduced to multiple features as shown through the use case in Figure 1, that are:

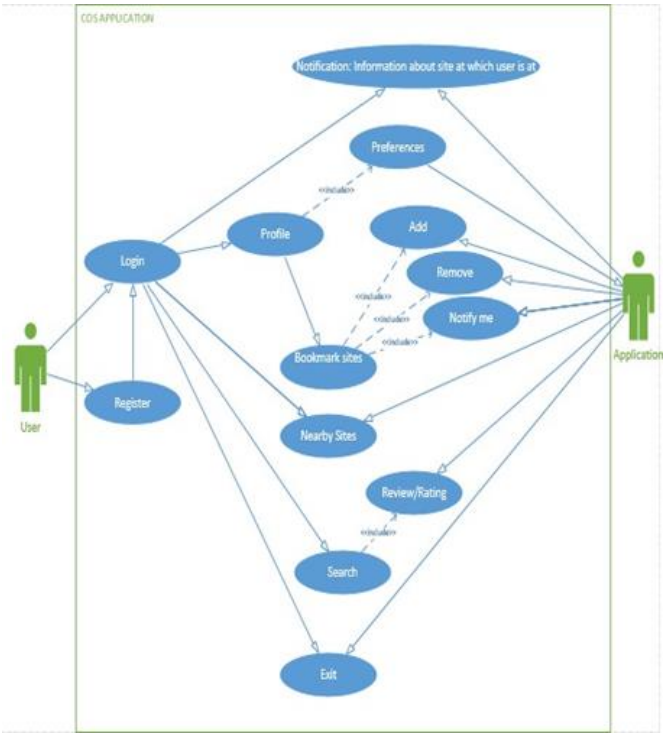

Figure 1

Figure 2

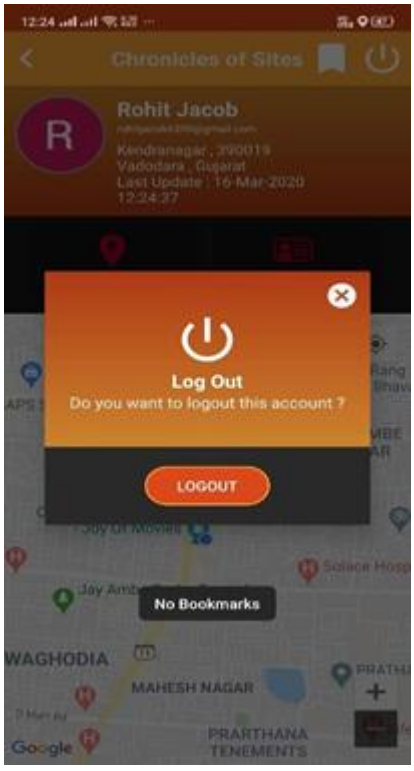

Figure 3

Here Figure 3 is a screenshot of logout. It will show this popup when user wants to get logged out from the app, and near it is Figure 2 the starting symbol of

application after which user will be greeted with the login page.

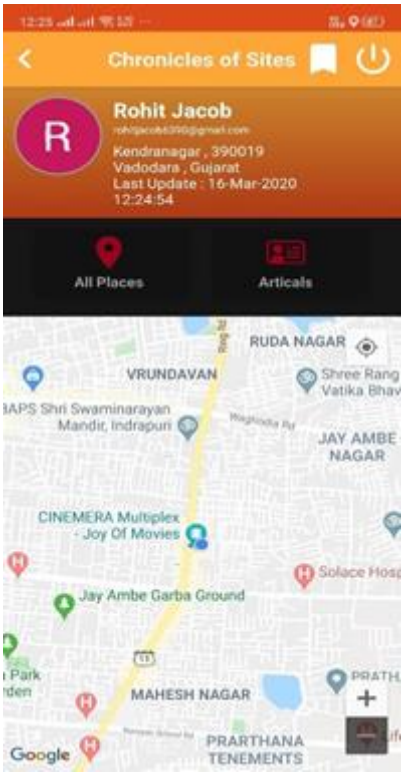

Figure 4

Figure 5

In Figure 4, Here shows the homepage of our application which includes profile, bookmarks, articles. Here figure 5 gives the information about the users selected location. It is associated with the homepage, when the user clicks the locations marker, it will show the same page as above and give information on the above.

V. RELATED WORKS

There have been a number of research efforts into tourist applications, and we provide an overview of some of those systems.

In "Smart City Traveller: A proposed architecture for Tourism" from International journal of Emerging. In this an app is made that provides users with location-based information, which can be browsed or queried through a map. Which was achieved through Space based navigation system uses cellular network(gsm) that provides easy way of finding any place and makes tourism more unique.

In "Context-Aware Smart Tourist Guide Application for an Old Palace" from International Conference on Convergence Information Technology. This research was to develop a smart context-aware self-guided tour assistant application, a tourist guide application for the old palace Deoksugung in the centre of Seoul. Done through dividing palace into 5 x 12 = 60 blocks. Program identifies numbered blocks from GPS longitude and latitude.

In "GPS Based Tourist Guide System" from International Journal of Advanced Engineering Research and Application. This was to develop application in which as phones detect GPS locations dynamically, user gets updated information about where he is, through his phone without much effort. To develop application in which as phones detect GPS locations dynamically, user gets updated information

about where he is, through his phone without much effort.

VI. CONCLUSION

This application helps user to find the information about a particular location at which they are currently present, through location based service technology's application and makes use of the google API for its maps that is very advanced compared to APIs of other organization. It provides the Directions about the locations that user want to visit. It also provides bookmarking function to have a convenient access to information that the user wants review at a later time.

It also shows the user the location nearby his own position that the user may want to visit. It also gives out the locations of the nearby locations in accordance to user's preferences such as religious preferences like church or temple.

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Cite this article as : Rohit Jacob, Sarun Memmon, Yash Gandhi, Anas Dhadi, "COS-Chronicles of Sites", International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT), ISSN : 2456-3307, Volume 6 Issue 2, pp. 198-202, March-April 2020. Available at doi : https://doi.org/10.32628/CSEIT206250
Journal URL : http://ijsrcseit.com/CSEIT206250