



# Location Based Mobile Advertising

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**Abstract :** A purely region-based provider is a provider of statistics and entertainment, hands-on with mobile tools through mobile communities, and potential uses to utilize the geographic role of mobile tools. Full service-based localization can include mobile commerce in the form of coupons or marketing to customers primarily based on their existing niche. Location-based offers and marketing allow customers to receive offers based on their geographic area. It can be provided in response to inputting a customer's instructions about their area's statistics into a handheld device, or by using location generation to regularly listen to the guest's area. Store and provide a comprehensive shopping experience.

**Keyword:** Android application, location, advertising app.

## I. INTRODUCTION

Technology has proven to us that the barriers of limited communication are removed in turn, and thus humans can transcend themselves in a transparent state of interaction, transcending the limitations of space especially in terms of information. The role of mobile devices as a means of navigation is not really a new topic as a central idea. We have been long using GPS functions in various tools as simple as one our most convenient ways of travel which is our personal cars. Location-based services have become more appealing as they are seen as a way to revolutionize mobile communications and target users with advertising. With the tremendous growth in mobile phone usage around the world, mobile apps have become location-based information functions in their favor.

The smartphones have also helped in creating an even more opportunities as the speed and relevance of marketing have become increasingly important. People are taking their smartphones to all places they go. For this reason, companies consider it a reason to use this platform for their marketing. The growing number of smartphone users and the growing number of reasons to use them are having a significant impact on marketing. This shift towards increased smartphone use means that marketers will need to shift their strategies and campaigns towards a more mobile-focused one. Customers are increasingly using their smartphones to help them make daily decisions. [1]

## II. RELATED WORK

The research done by us comprises of reading papers and articles on previous work done in object detection, image processing and comparison between their techniques.

### A. Existing System:

Foursquare, stylized as foursquare, is a hardware-based, location-based social networking website for mobile devices.

This service is available to users of GPS-enabled mobile devices such as smartphones. Users "subscribe" to websites using a mobile site, text message, or device-specific app by running the app and choosing from a list of sites that they want the app located nearby. Each registration gives the user points and sometimes a "badge". [2]

Dodge ball was a location-based social networking software provider for mobile devices. Users' text their location to the service, which then notifies them of crushes, friends, friends' friends and interesting venues nearby. Dodge ball was shut down by Google in March 2009 and replaced with Google Latitude. [3].

Besides, there are various companies which have launched their own location based mobile advertisements to enable customers get the notifications of the nearby offers of their products. Some of the prominent ones being Adidas, Dairy, Queen, etc. [4]

### III. PROBLEM STATEMENT AND OBJECTIVE

#### A. Problem Statement

There become no direct direction to book advertising to users. You must use the medium for marketing and marketing. Location-primarily based totally marketing and marketing allows Users who can without problems get the commercials they want primarily based totally on their place and consumer will now no longer see inappropriate commercials as we can be the usage of place.

#### B. Objectives

- To develop an application where ads will be on basis of location.
- The user can receive advertisements from the server.
- Advertisements will get displayed based on location of user.
- Using Google API for location.

### IV. PROPOSED WORK

The proposed system is proposed to integrate roaming services into the web service infrastructure. In this case, mobile users can get location-based services when roaming. Advertisers register on the portal and host their ads on the portal. The portal is managed by an administrator. Admin distributes these advertisements over the network to the list of registered users/customers. Users receive these advertisements from time to time through notifications. Users can filter out unwanted advertisements and notifications by using pull-approach. The notifications will depend highly on the location of the user which will be traced using GPS and GSM technologies thus making the advertisements/notifications location-specific. The functionalities of the proposed system are distributed among the following use cases:

User:

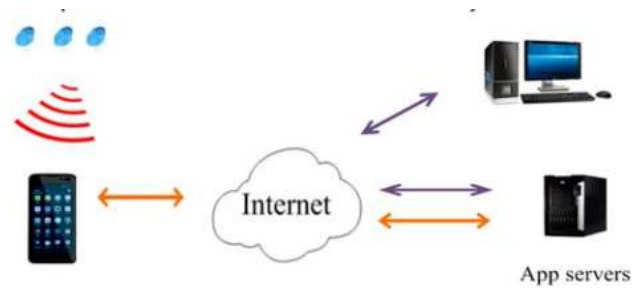
1. User access the Mobile application system through Mobile interface.
2. User provides the login details of the application, checks available options, selects the desired options.
3. Able to watch ads on basis of location.

Admin:

1. Manages the web-portal.
2. Adds the advertisements.
3. Accepts the registration of customers.
4. Maintains the Database

Mobile app:

Users/customers can access the mobile application. The mobile application starts with a page that invites the user to enter their credentials. After a successful connection, the user will see their current location as long as their GPS is on. App-specific features like geolocation, branding can create relevant moving moments. More specifically, connecting user location to personalize notifications helps to make the app more attractive and relevant to users. It will not only create a better user experience but also create a big impetus for businesses.



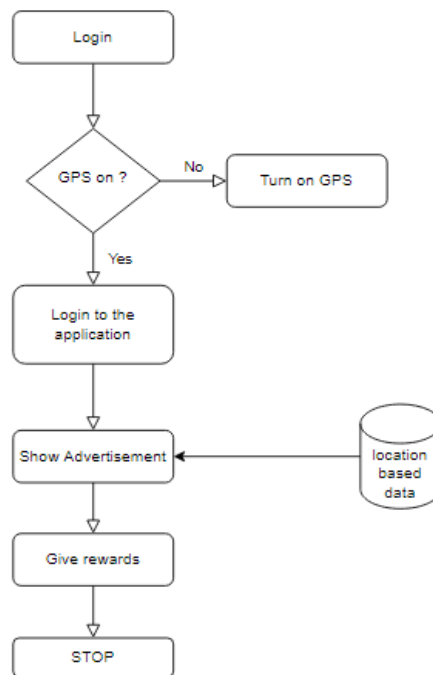
#### A. Details of hardware and software

- IDE used: Android Studio
- Programming language used: Java
- Database: Firebase.
- API: Google API

#### V. SYSTEM ARCHITECTURE

The Main components of the architecture are Google API. The user can receive advertisements from the server. Advertisements will get displayed based on location of user. When user will unlock his phone, and opens our application each time he will get a single point which he can redeem. The advertisements will from admin side.

Upon entry into app, users will be presented with a pop over asking for the access to their location. Home Page is embedded with navigation. Where the user can sign up by providing their personal information and individual account is set up. Once logged in, the user can view their profile. Users receive push notifications when logging into the system. It also helps users choose timely updates and effectively helps re-engage users with requested content. Google APIs are application programming interfaces (APIs) developed by Google which allow communication with Google Services and their integration to other services. Examples of these include Search, Gmail, Translate or Google Maps. Third-party apps can use these APIs to take advantage of or extend the functionality of the existing services. APIs that provide functionality such as analytics, machine learning as a service (predictive API), or access to user data (when authorized to read data). Another important example is a Google map embedded on a web page, which can be done using the Static Maps API, the Places API, or the Google Earth API.



## VI. CONCLUSION

Changes in the telecommunications sector have changed the way advertisers interact with customers. Besides internet advertising, a modern advertising agency is also likely to use some form of mobile advertising, reaching audiences based on their current location while using mobile phones their mobile or tablet. This work presents a location-based mobile advertisement publishing system. The proposed system is able to provide vendors a convenient way for editing and publishing advertisement by vendors at low cost and effective way to implement digital advertisement publishing mechanisms. The location based advertising is very effective.

## VII. ACKNOWLEDGMENT

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