

# User Application for preferences and apprehension using location based services for GPS enabled devices

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**Abstract**— Rapid expansion of wireless technologies have provided a platform to support intelligent systems in the domain of mobile marketing. Mobile advertising has become a niche for all sorts of businesses after its Inception, due to the fact that wireless technology is at its peak. Internet provides us with the flexibility to reach maximum audience in a short period of time with lower costs. This system uses geo-fence technology, providing Customer Feedback Facilities and better offers as per users selection, it lets the user to locate an immediate shop within the set radius based on user preference .Thus sufficing the purpose, to deliver iMAS Ads application on the GPRS enabled Android phones, also bestows the user Ads posted by shop vendors in order to promote users shopping anywhere anytime and free of cost.

**Keywords**—Mobile Advertising, Preference based, Geo Fencing,

## I. INTRODUCTION

With the development of Information Technology, it is possible to deliver advertising more accurately. Mobile advertising has been considered as a new form of marketing and provides new opportunities for the businesses. Advertising activities conducted via mobile devices enables advertisers to directly communicate with potential customers in a fast speed.

This project introduces geo based advertising and implementing an architecture that is adaptive to changing location context of the mobile devices. Geo-based location is a feature in a software program that uses the global positioning system (GPS) to define geographical boundaries. A geophone is a virtual barrier. The geo-fencing system triggers the event when user enters a specific area.

The objective of this project is to create a geographical list covering various locations items of latitude and longitude and the corresponding advertisements for each. . It Uses a database to store a logical representations of various geographical targets and the target advertisement for each location. The latitude & longitude will be received from GPS & as per different locations different ads will be displayed.

## II. PURPOSE

Location-based advertising hinges around the fact that wherever we go these days we always carry a mobile with us. And most of us quite happily share our location data with the various applications we use. This presents an opportunity for advertisers to personalise their messages to people based on their current location. In real time. Using a person's location data, gleaned from their mobile device,

advertisers can send different messages to people depending on where they are.

## III. OVERALL SYSTEM DESCRIPTION

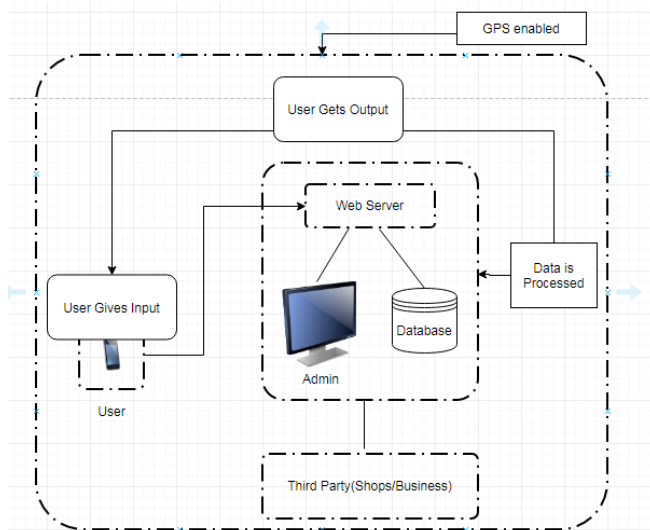
### A. Existing System :

Existing mobile advertising system shows all the advertises to the user .Current generations of Location based services provides advertisements based on random users using mobile phones without considering their preferences about what they want in the first place, which can be quiet annoying. The problem occurs in this system like to see the advertisement in a user present location the user must have to come under the range of beacon signal area. This happens because of the radio wave rang of Bluetooth device which is approximately 10 or 15 meters. Again the direction of particular location is not provided . Without a background in digital marketing or a thorough understanding of how location based technology actually works ,It can be difficult for a small business owner to know where to begin.

### B. Proposed System :

This project makes possible for the customer to fetch the nearby advertisements according to his current location with the help of GPS. The latitude & longitude will be received from GPS & as per different locations different ads will be displayed Apart from advertisements it will also include offers and discounts which can prove to be efficient for the customers using this android application. This application provides the list of products/services so that the customer can select his choice of products/services and based on those choices the relevant advertisements and offers will be popped-up.

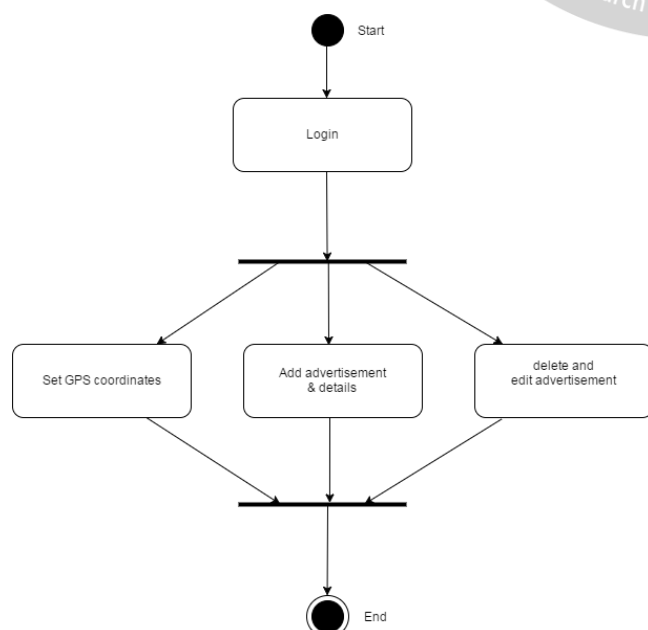
### C. System Architecture



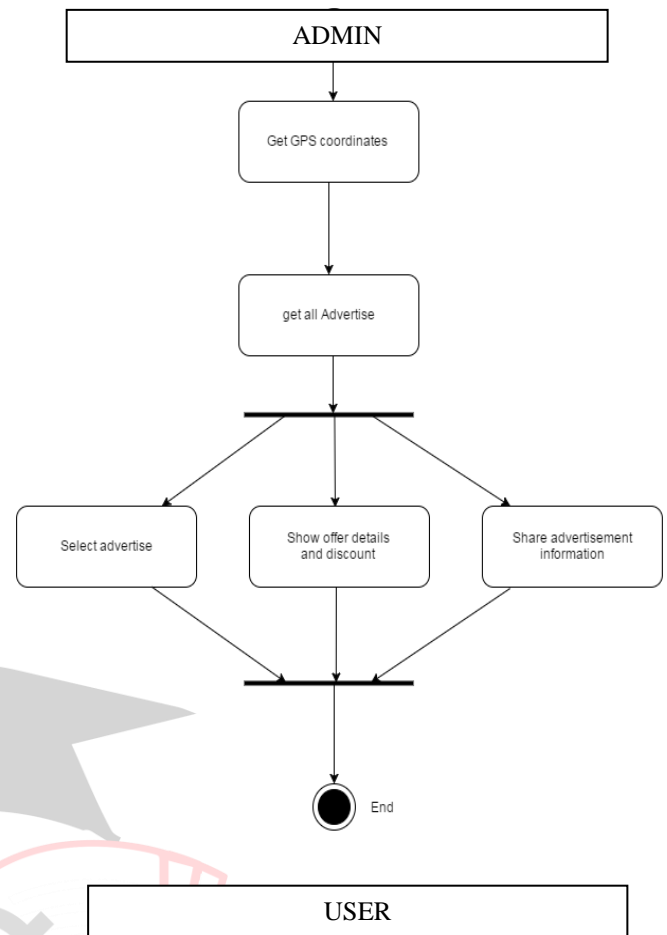
**Fig. 1 System Architecture**

Here a user using the Mobile Application would create a user identity by registering themselves using a username and password. When a user is registered with the application their credentials will be saved within the database, So that whenever a user will try to use the application their preferences will be saved according to their username and ID. When the user data is created it is passed to the database to be stored for future services. When a user fires a query within that application the latitude and longitude of that user will be fetched by their device and based on that data the user will be recommended about what they are trying to search for and based on that the user will be provided with the best suited offers for them. By fetching all the data about various shops around them which is stored within the database.

### D. Flow Of The System



**Fig. 2 Use case fir System**



**Fig. 3 Use Case Diagram for Admin & User**

1. **Login/Register:-** This is the first and foremost procedure to know the user's information. If the user is using this application for the first time he has to give some of his basic information like name, address, date of birth etc. When a user has already registered first he has to enter the user name and password that he will already receive. All these information are stored and can be accessed from the server My SQL database.

2. **User GPS location:-**Location-based advertising (LBA) is established through the powerful combination of mobile marketing and advertising with location-based services (LBS). Its take user GPS location using android application and hold in your system.

3. **Search advertise:-** In this module system will search advertise using GPS co-ordinates. and show it in your android device and Admin can change that advertise.

4. **Show Advertise:** Show advertise as per your GPS location and it show discount and description of product and validity of offer.

5. **Admin module:** Admin can add new advertisement in My SQL database using PHP panel and Update data. Title of advertise and discount and description of product.

6. **Feedback:** User feedback and review of system submitted using feedback module for research and system

modification and avoid fake advertise purpose we need to add this review module in this system.

#### IV. CONCLUSION

Our System intends to focus on preference based advertising which will provide the user with the offers they intend to by taking user preference which is our primary Goal and comparing , Searching results, and sorting the best results based on the parameters set within the system.

The system has flexibility provided for user choice to choose a particular product and Locate the shop based on the users choice .This will provide new opportunities to explore best offers by saving time through efficient management of offers.

#### V. FUTURE SCOPE

Location based marketing is a key aspect of mobile marketing, we as a user or as an organisation can user their devices anywhere anytime to reach wide array of audience Wherever they may be, The cost of developing a system is minimal, For just this demo purpose we are deploying the project on an android device with minimal data. So the cost factor is minimal. But if we want to Deploy this project on a large scale then we will have to use Cloud based platform for hosting our application and accommodate a larger number of people, But this will drastically increase the price of our application which is not feasible when we are deploying it on such a small scale, The time to develop this small scale application is relatively lower as compared to deploying it on a cloud based application using Bigdata to accommodate a massive amount of users, and the scope of our project is massive while implementing it for a multitude of users who will be provided with a preference based advertising system.

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