A

#### PROJECT REPORT

ON

# "Location Based Mobile Advertising"

#### **SUBMITTED TO**

#### SHIVAJI UNIVERSITY, KOLHAPUR

# IN THE PARTIAL FULFILLMENT OF REQUIREMENT FOR THE AWARD OF DEGREE BACHELOR OF ENGINEERING IN COMPUTER SCIENCE AND ENGINEERING

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Promoting Excellence in Teaching, Learning & Research

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING DKTE SOCIETY'S TEXTILE AND ENGINEERING INSTITUTE, ICHALKARANJI

2022-23

#### D.K.T.E. SOCIETY'S

# TEXTILE AND ENGINEERING INSTITUTE, ICHALKARANJI (AN AUTONOUMOUS INSTITUTE)

#### DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



Promoting Excellence in Teaching, Learning & Research

# **CERTIFICATE**

This is to certify that, project work entitled

# "Location Based Mobile Advertising"

is a bonafide record of project work carried out in this college by

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# **DECLARATION**

We hereby declare that, the project work report entitled "Location Based Mobile Advertising" which is being submitted to D.K.T.E. Society's Textile and Engineering Institute Ichalkaranji, affiliated to Shivaji University, Kolhapur is in partial fulfillment of degree B.E.(CSE). It is a bonafide report of the work carried out by us. The material contained in this report has not been submitted to any university or institution for the award of any degree. Further, we declare that we have not violated any of the provisions under Copyright and Piracy / Cyber / IPR Act amended from time to time.

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We feel gratified to record our cordial thanks to other staff members of Computer Science and Engineering Department for their support, help and assistance which they extended asand when required.

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# **ABSTRACT**

Tablet phone and smart phones are replacing bulky desktops for computational purposes. All the information must be available in the mobile device and in user customized format. Marketing campaigns always aimed to reach better results from advertisements by adopting available technologies. Personalization, interactivity and ubiquity are the main features of mobile devices that attract marketers. To have high-personalized advertising, marketers benefit from mobile locating technologies to locate customers and personalize advertisements based on the location. Main purpose of this service is to extend the reach of small to medium businesses towards its customers in their locality as well as other distant customers. The purpose of every location based information system is to assist with the exact information, at right place in real time with personalized setup and location sensitiveness. This service tries to attract customer through offers, discounts and sales events provided by the businesses using location of the user.

Personalization is another essential aspect of mobile advertising. Marketers can gather data about users' preferences, interests, and behaviors to deliver highly personalized and targeted advertisements. By analyzing users' location history, purchase patterns, and interactions with the mobile device, marketers can create advertisements that resonate with individual users. For instance, an e-commerce app may recommend products based on a user's previous purchases or browsing history, increasing the likelihood of a conversion.

Overall, location-based information systems on mobile devices enable marketers to reach customers with greater precision and relevance. By leveraging the ubiquity and interactivity of mobile devices, marketers can deliver personalized advertisements, extend their reach to local and distant customers, and provide timely information and offers based on the user's location.

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# Introduction

#### 1.1 Problem definition:

- Businesses use various marketing strategies to expand their reach towards customer. Hence
  they use traditional marketing strategies such as putting up advertisement on TV, Radio,
  Internet, Hoardings, Newspapers, etc. However these advertising strategies may not be that
  effective.
- Traditional way of marketing is inefficient in terms of providing particular location to user.
- There are few marketing applications available but there are some drawbacks associated with them
  - ☐ Improper/Inefficient categorization of data while displaying.
  - ☐ Inaccurate display of data with respect to location of user.
- Popular & big brands can afford big marketing strategies to efficiently deliver their product information and offers to their customer but for small business cannot do the same.

#### 1.2 Aim and objective of the project:

- To develop service which provide platform for businesses to promote their product and service to the customer effectively and efficiently.
- To view logical representations of various geographical targets and the target advertisement for each location using GPS technology.
- To display advertisements according to user's location

#### 1.3 Scope and limitation of the project:

Our project provides platform for small to medium business to promote their products and services which would boost their business generating more revenue. It help the user (customers) to easily search offers, sale and discount nearby them using location based service of the system. Also it would provide user friendly interface with appropriate categorization for easy interaction of users with the system. The system would be able to display the deals nearby user's present location. The user would be able to adjust settings of mobile application system such as range and location etc.

The application cannot be used without internet connection. The application requires internet to access the service. If there is no internet access, the location can be traced using GPS, but the application would not be update new offer data. Problem with GPS in old devices is that they take long time to lock the location which would delay further processing that would result in delayed output to the user. There have been lot of upgrades in android platform. But the problem is that these upgrades have been within short intervals. As each platform introduces new set of APIs, it creates problems for the programmers.

#### 1.4 Timeline of the project:

We started the project by gathering the related documents to the project at the end of July 2022. Gathering the requirements and all the analysis tasks was done by mid of August 2022. After that System design was started in the month of September 2022 and completed by the start of November along with the UML diagrams and Synopsis with a rough idea of the project.

In November 2022 we started making the detailed SRS documents along with deciding the methodology for the project which was completed by mid-December 2022. By the start of January 2023, we started coding by dividing it into 2 modules and completed the 1st module by the end of January 2023. Another module was completed by the end of March 2023. We started testing the project alongside designing the GUI which was completed in the first week of April 2023.

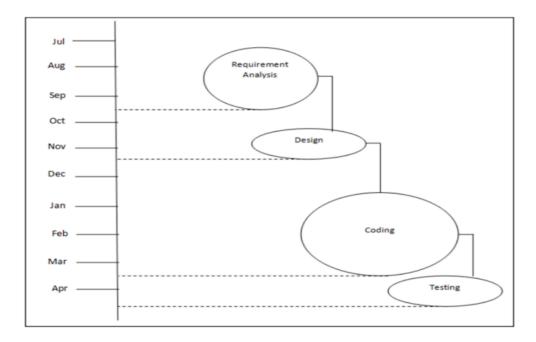


Figure 1.1: Project Timeline

## 1.5 Project Management Plan:

The following categories are primarily included in a project management plan:

Sr. No	Task	Start Date	Duration (days)	Finish Date
1	Domain Selection	20/07/22	3	22/07/22
2	Problem statement Finalize	23/07/22	7	25/07/22
3	Study of research Papers	26/07/22	20	14/07/22
4	Synopsis Documentation	05/08/22	15	20/08/22
5	Requirement gathering	09/09/22	10	19/09/22
6	Module Identification	24/09/22	10	03/10/22
7	SRS documentation Presentation	04/10/22	14	18/10/22
8	Study various algorithms	18/10/23	10	28/10/23
9	Coding implementation 30%	16/01/23	25	10/02/23
10	Coding implementation 70%	20/02/23	30	20/03/23
11	Testing and accuracy Improvements	21/03/23	10	30/03/23
12	Code updating	02/04/23	10	12/04/23
13	Coding 90%	15/04/23	10	25/04/23
14	Testing and Implementation 100%	25/04/23	8	02/05/23

Table 1.1: Project Management Plan

#### 1.6 Project Cost:

Sr.No.	Required Hardware/Software	Cost
1	Computer system with i5 and above.	50000
2	8 GB or above RAM	5000
3	Android Studio to run modules	0

Table 1.2:Hardware and Software Requirements

Estimated cost by considering other factors will be approximately –

#### **COCOMO Model**

In this project, the cost Estimation based on COCOMO(Constructive Cost Model) is calculated as below:

**Line of code**: To develop the system 737 lines of codes are required.

**KLOC**: KLOC is the estimated size of the software product indicates in Kilo Lines of Code.

**Effort**: The Effort is only a function of the number of lines of code and some constants evaluated according to the different to the software systems.

**Time**: The amount of time required for the completion of the job, which is of course, proportional to the effort put in. It is measured in the units of time such as week months.

**Persons required**: Persons required is nothing but effort divide by time.

Software Project	Ab	Bb	Cb	Db
Organic	2.4	1.05	2.5	0.38
Semi-detached	3.0	1.12	2.5	0.35
Embedded	3.6	1.20	2.5	0.32

- KLOC = LOC/1000 = 737/1000 = 0.737
- Effort =  $a*(KLOC)^b = 2.4*(0.737)^1.05 = 1.742$
- Time =  $c*(Efforts)^d = 2.5*(1.742)^0.38 = 3.088$
- Persons Required = Efforts/Time = 1.742/3.088 = 0.564

# Background study and literature overview

#### 2.1 <u>Literature Overview:</u>

#### • Groupon

Groupon is a deal-of-the-day website that features discounted gift certificates usable at localor national companies. Groupon was launched in November 2008, and the first market for Groupon was Chicago, followed soon thereafter by Boston, New York City, and Toronto. By October 2010 Groupon served more than 150 markets in North America and 100 markets in Europe, Asia and South America and had 35 million registered users.

Front End: AJAX/JavaScript/HTML/CSS along with client-side JavaScript frameworks likejQuery, Backbone.js, Objective C, Java etc.

Back End: NoSQL MongoDB for database along with coding languages such as Ruby/JRuby,Rails, Java, MySQL, Redis, Resque and other web technologies.

#### SaveZippy

. SaveZippy makes it easy for the Indian users, to view offers across all the stores in the mall starting from shopping offers to dining offers. Just install the SaveZippy application and you will automatically be notified about the offers present in the mall when you reach one. That's right, you heard it correct, you need not check for offers, SaveZippy detects if you are in a mall and gives you the alerts

Back End: NoSQL/ MongoDB for database along with coding languages such as Python/Java/Ruby/PHP for backend

Front End: AJAX/JavaScript/HTML/CSS along with client-side JavaScript frameworks like jQuery, Backbone.js, etc.

#### • Hike

Hike Messenger (stylized as hike messenger) is a cross-platform instant messaging for smartphones. Hike is supported on Wi-Fi, 2G and 3G data networks. As of September 2014, Hike has over 35 million users globally and is among top 6 apps on Android,iOS and Windows Store in India. Hike was developed by Atul Singh, Lucknow.

Hike Messenger provides offers in form of rewards. It provides discount coupons on various big brands such as McDonalds, KFC, Pizza Hut, Café Coffee Day, etc. But this coupons are only unlocked when the user uses this mobile application daily.

#### • FreeCharge

FreeCharge.in is an e-commerce website headquartered in Mumbai, Maharashtra. It provides online facility to recharge any prepaid mobile phone, post-paid mobile, DTH & Data Cards in India.

#### 2.2Investigation of current project and related work:

We started this project with the aim of creating Location Based Advertising System. This system overcomes the drawbacks of traditional marketing as well as existing system. It also provides personalized advertisement to the users with respect to location and easy search of offers. This system provides efficient way for business to market the products and services as advertises are delivered directly to the user's mobile phone and also the cost to set up infrastructure is much less as compared to other marketing strategies.

This is one way to attract customers from locality is to provide them with offers, discounts, and sale. However to publicize this offers and discounts again you have to approach traditional marketing methods. To do this effectively business owner need a platform to broadcast their offers and information.

Here we introduce Location Based Advertising android application. This application will provide users information about various offers, sales, discounts provided by various businesses, shops, brands, etc. with respect to user's location

# Requirement Analysis

## 3.1 Requirement Gathering:

#### 1. Hardware requirements

• Processor: 2.00 GHz or higher

• RAM: 4 GB or higher

#### 2. Software requirements

- Android Studio
- Java
- Microsoft Windows OS
- Android SDK

# 3.2 Requirement Specification:

Sr.No	Requirement	Essential	<b>Description of the</b>	Remarks
		or	requirement	
		Desirable		
	The system should		This will make system	App will be
RS1	be easy to install and setup.	Essential	more portable.	available for easy installation.
	The system should		To make it easy for all	It ensures the
RS2	have user friendly interface.	Essential	type of users to operate.	sustainability of the system.
	System should be		System should be able	It ensures easy
	able to display	Essential	to display categories	access of ads
RS3	categories of ads	Essential	of ads which user	through
			wants.	categories.
RS4	The system should	Essential	This will help	It ensure GPS
	be able to access		user to see	is enabled by
	location of user		nearby ads.	user.
	using GPS.			
RS5	The system should		The ads are	This helps
	display result	Essential	displayed according	user to access
	according to	Lissemuai	to categories of	ads easily
	categories		product.	which thy
				wants.
RS6	The system should	Essential	The details of offers	It helps user
	display offers of		will be displayed	to see offers
	ads			in specific
				products.

Table 3.1: Requirement Specification

## 3.3 <u>Use case Diagram:</u>

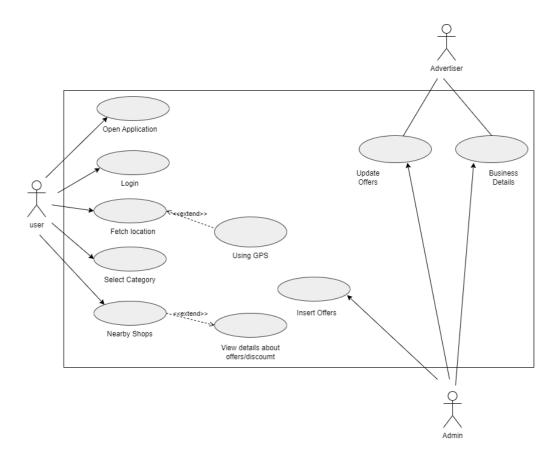


Figure 3.1: Use case diagram

# System Design

#### 4.1 Architectural Design

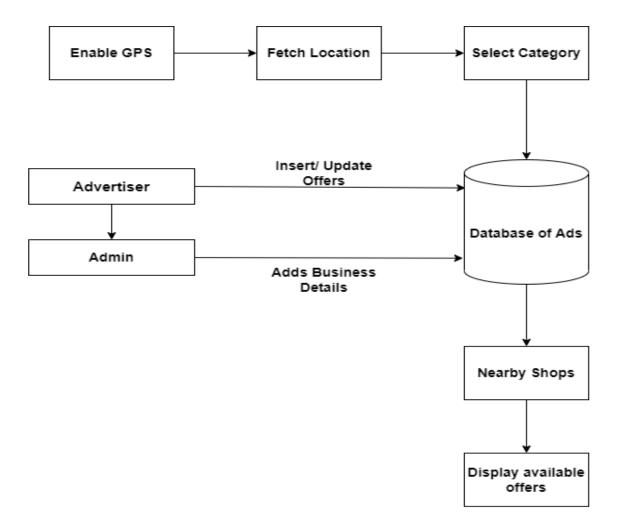


Figure 4.1 : Architectural diagram

## 4.2 <u>User Interface Design</u>

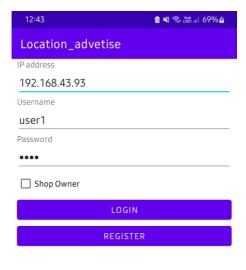




Figure 4.2 : User Interface Design

#### 4.3 Algorithmic description of each module

#### 4.3.1 Register:

User and Advertiser should register to the System to get access to the application.

#### 4.3.2 Login to the System:

The user has to open the application on his android smartphone and login with his credentials.

#### 4.3.3 Select Category:

The user has to select a specific category of product for refined results.

#### 4.3.4 Shops:

The user views the list of results returned from server and he will find the list of shops of respective category.

#### 4.3.5 Deals/Offers:

User also find the offers related to the shops.

#### 4.3.6 Fetch Location:

The application will automatically fetch location of the user in background by using GPS.

#### 4.3.7 Path:

The user will find the path from his current location to the location of the respective shop.

#### 4.3.8 Insert and Update offers:

Advertiser can login to the system to insert or update the offers of their shops.

#### 4.4System Modeling

#### **4.4.1 Dataflow Diagram**

#### DFD Level 0



Figure 4.3: Dataflow Diagram

#### DFD Level 1

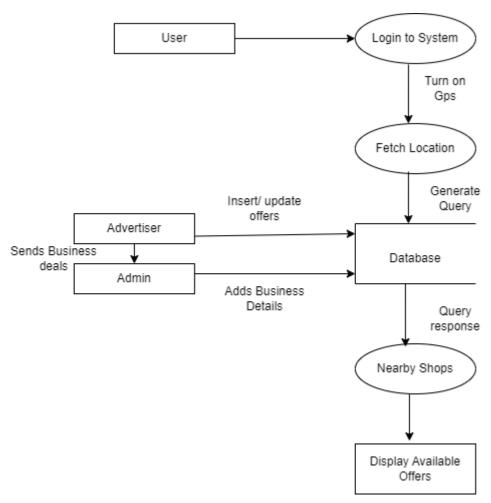


Figure 4.4 : Dataflow diagram level 1

## 4.4.2 Sequence Diagram

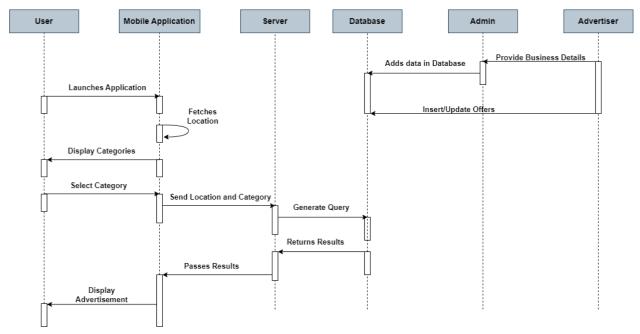


Figure 4.5 : Sequence diagram

# 4.4.3 Activity Diagram

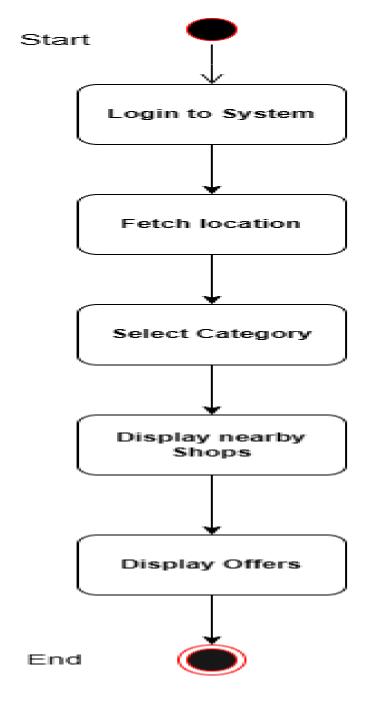


Figure 4.6 : Activity diagram

## **4.4.4 Component Diagram**

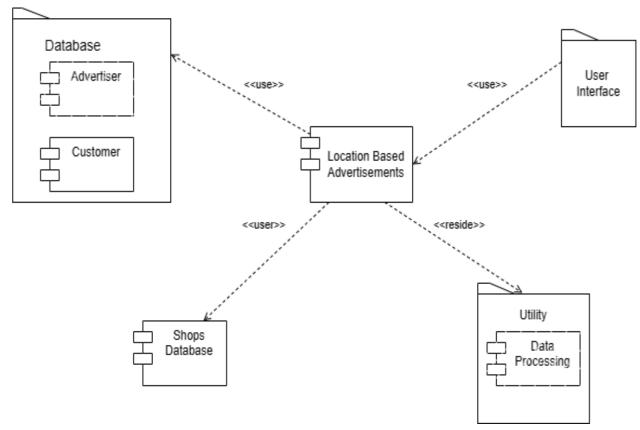


Figure 4.7 : Component Diagram

## 4.4.5 Deployment Diagram

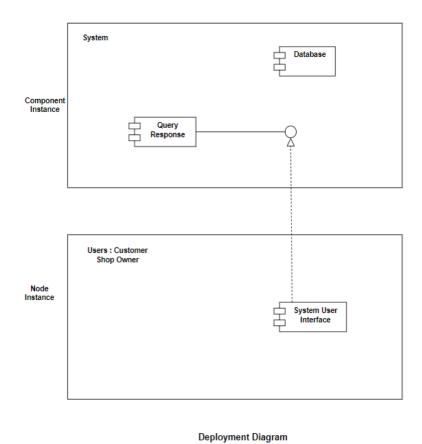


Figure 4.8 : Deployment Diagram

# Implementation

#### 5.1 Environmental Setting for Running the Project

- 1. Windows Operating System: 8, 10 or above
- 2. Processor: Intel core i5 or above.
- 3. 64-bit, quad-core, 2.5 GHz minimum per core
- 4. Ram: 4 GB or more.
- 5. Hard disk: 10 GB of available space or more.
- 6. Java
- 7. Android Studio
- 8. Android SDK
- 9. JSON
- 10. PHP
- 11. Xampp Server

#### Android Studio:

Download Android Studio from <a href="https://developer.android.com/">https://developer.android.com/</a>. Please install latest version which is 2022.2.1. It is used for build android apps.

#### Java:

Download and Install Java JDK 20 from <a href="https://www.oracle.com">https://www.oracle.com</a>. It is programming language and a platform. Java is a high level, robust, object-oriented and secure programming language.

#### Xampp:

Install Xampp server from <a href="https://www.apachefriends.org/download.html">https://www.apachefriends.org/download.html</a>. It is simply a local host or server that is used to test clients or websites before publishing them to a remote web server.

#### JSON:

JSON is a lightweight format for storing and transporting data. JSON data is written as name and value pairs. We stored additional information of users and shops in JSON format.

#### **5.2** <u>Detailed Description of Methods</u>

#### • User:

We provide GUI for user. User can login to the system. Then he will select category from stationary, electrical, medical, restaurant. Then he will find the list of shops of respective category. The system fetches the location in background. If the GPS is enabled by user; the exact location of the user would be fetched. So that the ads returned from server would be accurate according to the user's location.

#### • Advertiser:

Advertiser is the client of this service whose product or service is to be marketed. The Advertiser is responsible for providing business information along with necessary promotional information to the Admin.

#### • Admin:

Admin is the owner of the system. It is responsible for analyzing the information given by the Advertiser. It organizes the information received according to the specific format for the service and upload the information in the database through the server.

#### Database :

Database stores all the data related to advertiser and their offers with location of ads in an organized format. The Database Management System used for this service for storing main data is MySQL.

#### • Server:

Server acts as an intermediate for communication between the database and the user. It is responsible for generating appropriate query to retrieve information from the database. It also consist code which processes the location data received from the mobile application and provides relevant list of deals near to the location received.

## **5.3** <u>Implementation Details</u>

- 1. To setup this service, we needed a backbone that stores all the data and host it. We hosted a server on localhost using XAMPP server.
- 2. PHPmyAdmin allows to create database for storing all service related data on MySQL database server. We created tables for administrators login, User Login and Shops data.
- 3. To enter the data into the database we created a small website. This websites allows user to enter the details about the shops into the shops table in the database.
- 4. A Google Map Plugin has been used to take exact co-ordinates of the location of the offers, improving the accuracy of the service.
- 5. On opening the application by default user's location is detected, by using GPS.
- 6. The android application sends data in form of key value pair containing the 'Category', 'Latitude', 'Longitude', 'Range' to a PHP Script hosted on website. This PHP script execute a search query in offer's table. The data retrieved from the query is encoded

into JSON format and sent to android application.

#### 7. Virtual Box

The query processing of this service is based on the Latitude, Longitude, Category and Range that the PHP Script receives from the android application.

To convert Kilometers into Degrees we have to multiply the Range (in Km) value by 0.009.

1 Km = 0.009 Degree (In terms of Latitude and Longitude)

- 8. The result is received in JSON format and is parsed by a function and added to an array list. View Holder class populate data from that array list in a custom list view format.
- 9. On appropriate selection of shop from the shop list displayed the ID of that shop is passed to server in a key value pair to a PHP script. This PHP script execute a search query in shop's table. The data retrieved from the query is encoded into JSON format and sent to android application
- 10. The result is received in JSON format and is parsed by a function and added to an array list. Another View Holder class populate data from that array list in a custom detailed list view format.
- 11. On viewing the shop in detail the user will show the google map to view root from current location to shop location

# Integration

And

Testing

#### **6.1** <u>Description of Integration Modules</u>

Test cases	Expected output	Actual output	pass/fail
Login	Login successful.	Login successful	Pass
Register	Register successful	Register successful	Pass
Enable Location	Fetch Location	Fetch Location	Pass

Table 6.1: Description of Integration Modules

#### 6.2 Testing

The testing of software is an important means of assessing the software to determine its quality. Since testing typically consumes 40-50% of development efforts and consumes more effort for systems that require development of Fourth Generation Languages (4GL), which speeds up the implementation process, the proportion of time devoted to testing is increased.

Test	Test	Precondition	Test Steps	Expected	Actual Result	Pass/
Case	Case			Result		Fail
ID	Name					
1	Validation for application installation	APK file should be installed on android mobile	Accept all permissions require to application	1) APK file supported by android phone. 2) Application installed Successfully.	1) APK file supported by android phone.  2) Application installed Successfully.	Pass
2	Validation of User Interface	App should start on mobile	Check all the section one after another	All activities are displayed after clicking on controls	All activities are displayed after clicking on controls	Pass

3	Fetching of User's Location	App should be running on mobile	Enable GPS	Location is fetched on the google map	Location is fetched on the google map	Pass
4	Validation of display of categories.	List of various categories displayed	Login to the application	List of categories are displayed	List of categories are dispalyed	Pass
5	Validation of results displayed according to category	Location of user is fetched, range is set and category is to be selected	Click on the image button representing the category as shown on the image button	List of the offers with respect to User's location, range and category selected will be displayed	List of the offers with respect to User's location, range and category selected will be displayed	Pass
6	Validation of details about the offer displayed	List of the offers is displayed	Click on any offer which you want to see in detail	Details of offer displayed.	Details of offer displayed.	Pass
7	Validation of Advertiser should insert/update the offer	Page of update offer is displayed	Login to the system through advertiser account	Updated offer displayed or New Inserted offer displayed	offer displayed.	Pass

Table 6.2: Testing

# Performance Analysis

Location-based services (LBS) use real-time geodata from a smartphone to provide information, entertainment, or security. Some services allow consumers to check in at restaurants, coffee shops, stores and other places or events. Businesses often offer a reward – prizes, coupons or discounts – to people who check in at their locations. Location-based services rely on consumers' smartphones to provide interactive opportunities and targeted advertisements. Local businesses and their customers use and benefit from location-based services. Companies across many industries use LBS to provide customers with relevant offers and content, analyze their behavior, and improve the overall customer experience.

Customers enable location-based services to receive information and timely promotional offers that matter to them, facilitate location-specific services like food delivery and ridesharing, navigate to their destinations, track their fitness activity, and much more.

Improve the customer experience. With LBS, you can offer customers relevant content and services rather than annoying them with generic ads and marketing offers. You can also help navigate them to your nearest store location.

# Future Scope

Location Based Mobile Advertising	
Our project provides platform for small to medium business to promote their products at services which would boost their business generating more revenue. It help the user (customers) easily search offers, sale and discount nearby them using location based service of the system. Al it would provide user friendly interface with appropriate categorization for easy interaction of use with the system. The system would be able to display the deals nearby user's present location. The user would be able to adjust settings of mobile application system such as range and location etc.	to lso ers
Department of computer Science and Engineering 32	

# Applications

Location-based mobile advertising (LBA) is a new form of advertising that integrates mobile advertising with location-based services. The technology is used to pinpoint a consumer location and provide a location-specific advertisement on their mobile devices The main purpose of this project is advertisement. Advertisement or vouchers are commonly used today to attract the attention of customers.

- Small to medium business to promote their products and services which would boost their business generating more revenue
- The system would be able to display the deals nearby user's current location.
- Customer would be get advertisements based on their current location.
- It helps to get ads based on categories of products such as Stationary, Medical, Electrical and Restaurant.
- It helps to find shops for people which are new to that locality.
- It also useful to find offers of specific product of that shop.
- It shows the direction to go to that shop from users current location.

Changes in telecommunications have changed the ways advertisers reach out to customers. Besides advertising on the Internet, a modern advertising agency is also likely to employ some form of mobile advertising, reaching audiences based on their current location as they use their cell phones or tablet computers.

In this project, we focused on building a system which can be effectively used by both advertisers and users. The users need not specifically enter his location and search for offers or products explicitly instead get all the offers and products real time based on his location. The proposed system represents the blend of real time location and m-commerce giving the user a more personalized feel.

# Installation Guide and User Manual

### **10.1 Installation Guide**

There are no extra hurdles are added and it is made sure that this process is made as smoothas possible.

- The user just have to take this application in his smartphone and install it as regular application.
- Navigate to your phone settings menu then to the security settings.
- Enable the Install From Unknown Source's option. If already checked ignore this Step
- All the necessary permissions for the app will be asked when user opens the application. (It only asks for location permission to access location of user)
- That's it, User can now access the application features.

### **User Manual**

### **Step 1: Open LOCATION ADVERTISING Application:**

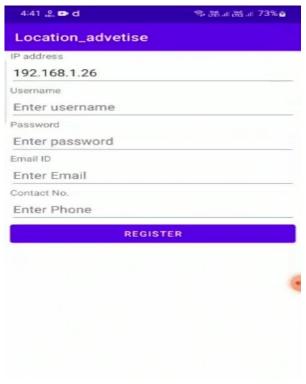
- Open LOCATION ADVERTISING app on your IOS/Android from the logo on your Home screen.
- If you haven't installed LOCATION ADVERTISING app, install it as per installation Instruction

### **Step 2: Give permission:**

- Allow access to Location, this will give the LOCATION ADVERTISING app the permission for the usage of smartphone Location.

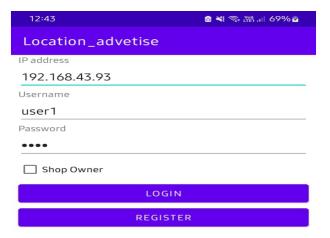
### **Step 3: Register to the Application:**

- If you are new to the application then register to use the application.
- Generate Username and Password to access to the application



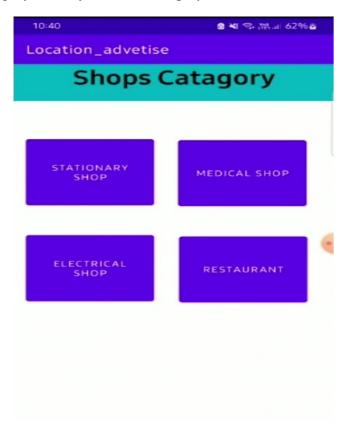
### **Step 4: Login to Application:**

- Login to the application by using Username and Password.



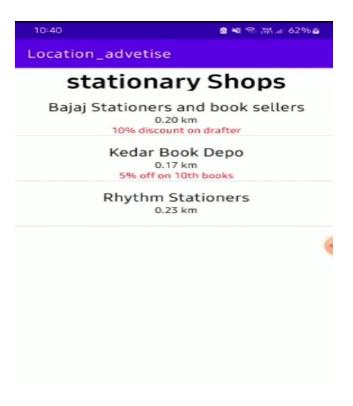
### **Step 5: Select Categories:**

- Buttons have been used to represent various categories such as Stationary Shops, Medical Shops, Electrical Shops and Restaurants.
- You will select category which you want to display ads.



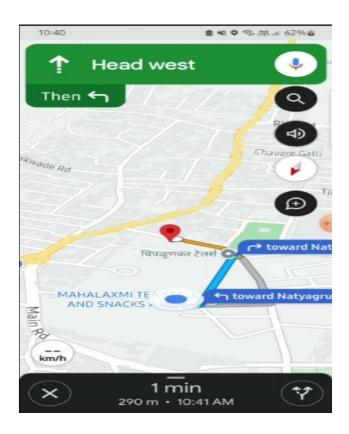
### **Step 6: Display of ads:**

- On clicking the category the application will display result of specific category
- On clicking on Stationary Shops Button, the application will fetch the stationary category records from the database and displayed in the custom List View Layout as displayed in figure below.



### Step 7: Google Map:

- On clicking on shop the google map display the direction to go the location of shop from our current location.



### For Advertiser:

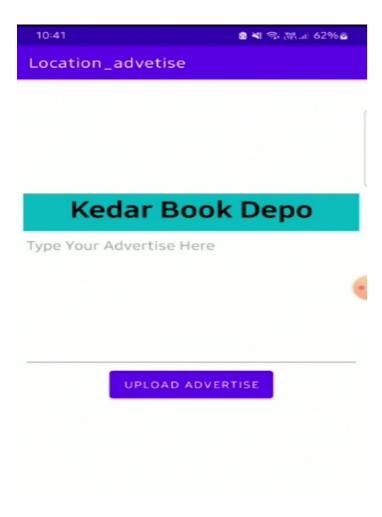
### **Step 1: Login to Application:**

- Login to the application by using Shop Name and Password.

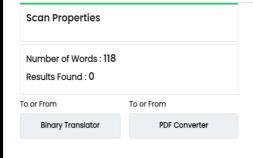


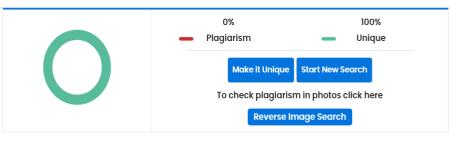
### **Step 2: Update/Insert Offer:**

- Write Offer details in given Text Box.



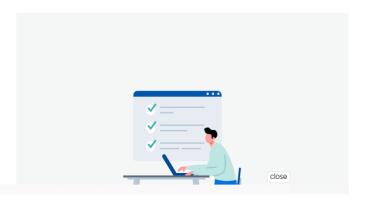
# Plagiarism Report



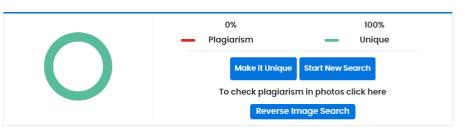


### Problem definition:

- Businesses use various marketing strategies to expand their reach towards customer. Hence they use traditional marketing strategies such as putting up advertisement on TV, Radio, Internet, Hoardings, Newspapers, etc. However these advertising strategies may not be that effective.
- Traditional way of marketing is inefficient in terms of providing particular location to user.
- There are few marketing applications available but there are some drawbacks associated with them

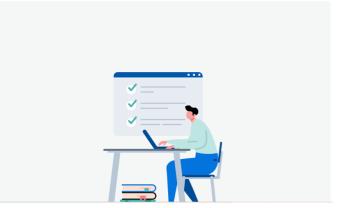


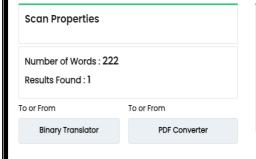


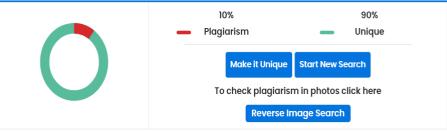


Our project provides platform for small to medium business to promote their products and services which would boost their business generating more revenue. It help the user (customers) to easily search offers, sale and discount nearby them using location based service of the system. Also it would provide user friendly interface with appropriate categorization for easy interaction of users with the system. The system would be able to display the deals nearby user's present location. The user would be able to adjust settings of mobile application system such as range and location etc.

The application cannot be used without internet connection. The application requires internet to access the service. If there is no internet access, the location can be traced using GPS, but the application would not be update new offer data. Problem with GPS in old devices is that they take







Tablet phone and smart phones are replacing bulky desktops for computational purposes. All the information must be available in the mobile device and in user customized format. Main purpose of this service is to extend the reach of small to medium businesses towards its customers in their locality as well as other distant customers. The purpose of every location based information system is to assist with the exact information, at right place in real time with personalized setup and

location sensitiveness. This service tries to attract customer through offers, discounts and sales events provided by the businesses using

Similarity 25%

### Location Based Services using Android Mobile Operating ...

by A Kushwaha  $\cdot$  2011  $\cdot$  Cited by 240 — The motivation for every location based information system is: "To assist with the exact information, at right place in real time with personalize d setup ...

 $\label{local-propulsion} $$ $$ https://search.proquest.com/openview/5b8b38c2lb0e76b81el2036e3fl68305/1?pq-origsite-gscholar$ 

close

Scan Properties

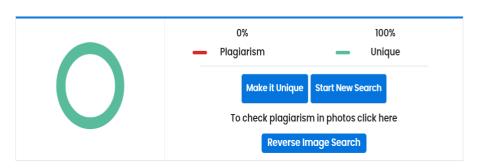
Number of Words: 54

Results Found: 0

To or From

Binary Translator

PDF Converter



Aim and objective of the project:

- To develop service which provide platform for businesses to promote their product and service to the customer effectively and efficiently.
- To view logical representations of various geographical targets and the target advertisement for each location using GPS technology.
- To display advertisements according to user's location



# Ethics

As A Computer Science & Engineering Student, I believe it is Unethical To,

- 1. Surf the internet for personal interest and non-class related purposes during classes
- 2. Make a copy of software for personal or commercial use
- 3. Make a copy of software for a friend
- 4. Loan CDs of software to friends
- 5. Download pirated software from the internet
- 6. Distribute pirated software from the internet
- 7. Buy software with a single user license and then install it on multiple Computers
- 8. Share a pirated copy of software
- 9. Install a pirated copy of software

### References

- John Mathai, Gobi Ramasamy, Sathya Purusothaman, Kirubakaran Ezra," Location based mobile advertising framework for commuters", Computing and Network Communications, 18 February 2016.
- Peng Cheng, Xiang Lian, Lei Chen, Siyuan Liu," Maximizing the Utility in Location-Based Mobile Advertising", IEEE 35th International Conference on Data Engineering, 10 April 2020.