Location Based Mobile Advertisement

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ABSTRACT

The devices most often used for IT services are changing from PCs and laptops to smart phones and tablets. These devices need to be small for increased portability. These technologies are convenient. In this project, we are going to integrate Dropbox Google docs and Jolo recharge API in order to set our android lock screen. We are going to display advertisements on lock screen based on location of the user and current time. User with the device will get 1 point for each unlocks, maximum 100 points per day. He/She can utilize points to recharge his/her mobile. We are going to give facility to advertisers to set their limit per day. So this project will be mutual benefit for all of the three entities, the user, application owner and advertiser. The main purpose of this project is advertisement. When user unlock the device, then GPS/LBS gets the users current location and send to the drop box. According to that location system will uploads images and respective advertisement from drop box.

User will get 1 point for each unlocks and that store to the Google docs. and Google docs stores personal information of user.

Keyword : Location Based, QR code, Mobile Advertisement.

1. Introduction

Every business wants to grow and develop a strong client base. Advertising or promoting a business is key to achieving this growth. Advertising methods include traditional marketing methods as well as newer, modern methods. The devices most often used for IT services are changing from PCs and laptops to smart phones and tablets. These devices need to be small for increased portability. 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.

There are various methods through which Advertisement can be done like radio, newspaper, websites, Television, Magazines, multimedia on cell phones etc. Customers are those fellows who want information in less time using these application they can get information on screen lock of mobile phones. This project is a location based advertisement in which user will be able to see advertisement based on there location. Users location will be taken as input and accordingly advertisement will be displayed on there mobile screen. Using these Application advertisement will directly get displayed on the screen of mobile phones. The adoption of mobile advertisements not only by vendors but also by the customers. Easy usage of internet for advertising. Beneficial not only for the vendor and developer but also for the user.
1. Vendors
   Advertising of their Shops, Products and Services.
   Direct linking to their Websites.

2. Developer
   Get income for vendors.

3. Users
   Get Recharge per specified count of unlocks.
   Getting the latest offers going on in their current location.

1.1 Problem statement
Advertisements are public notices designed to inform and motivate about Paid, non-personal, public communication about causes, goods and services, ideas, organizations, people, and places, through means such as direct mail, telephone, print, radio, television, and internet. There was not any direct way of publishing advertisement to user. They have to used some medium for advertisement. Location Based Advertisement will help people to get the required advertisement easily based on their locality. Advertisement will appear directly on Screen lock.

1.2 Literature Survey
Pankaj D Virulkar[2] has given Location-based advertising (LBA) is a new form of advertising that integrates mobile advertising with location-based services. The technology is used to pinpoint consumer’s location and provide location specific advertisements on their mobile devices. According to Bruner and Kumar (2007), “LBA refers to marketer-controlled information specially tailored for the place where users access an advertising medium” With the current rapid increasing use of smart phones, the mobile location based service market is growing to the point that location-based services are now a standard feature on many mobile devices. The greater availability of GPS phones, reduced prices, and app stores have all contributed to the rapid growth of location tools. Bernhard komel[3] Advertisements or vouchers are commonly used today to attract the attention and the purchase of consumers by providing discount or detailed description to customers. Typically, vendors use text to describe characteristic introductions and images to express appealing looks. In order to allow consumers to retrieve more information such as location of vendors, an advertisement publishing system should be improved to meet the consumer’s requirements. Prem Kumar.B[3] Advertisements or vouchers are commonly used today to attract the attention and the purchase of consumers by providing discount or detailed description to customers. Typically, vendors use text to describe characteristic introductions and images to express appealing looks. In order to allow consumers to retrieve more information such as location of vendors, an advertisement publishing system should be improved to meet the consumer’s requirements. This work proposes a location-based mobile advertisement publishing system, a framework for vendor editing, and location-based service. Most of the users keep their smartphones with them at all times, the likelihood of it getting left behind at a restaurant, gym, or other location that they previously visited is probably pretty high and the chances of that left-behind-phone getting stolen and fondled deeply without their approval is probably even higher. The first line of defense against evil doers is lock screen. However, even with these solutions, major problems could still result after a mobile device is lost. The proposed system contains an upgraded Lock Screen system, unlock phone using random number, generate system backup, receive notification of SIM change which is able to support authentication for the user’s convenience and provide a good security system for smartphones. If a user has a Android device like the Galaxy S3, then there are some differences in functionality but for the most part they all act in a similar fashion. First, to access the lock screen options, the universal location tends to be in Settings-Security. From there, one should see an option towards the top called “Screen lock,” which then takes us to the lock screen options once tapped.
2. **System Architecture**

The main components of this architecture are drop box, jolorecharge, Google Docs. The user can receive advertisements from the server. Advertisements will get displayed based on location of user. When user will unlock his phone, each time he will get a single point which he can redeem to get his mobile recharged. The advertisements will be downloaded from drop box server and the registration details will be stored on Google Docs. We will be using Jolo Mobile recharge API in order to recharge the mobile.

Drop box is a home for all your photos, docs, videos, and files. Anything you add to Drop box will automatically show up on all our smartphones. It is a personal cloud storage service that is frequently used for file sharing and collaboration. And it is an application for available for windows, Macintosh and Linux desktop Operating System. Google Docs is an open source database. It is an online word processor that lets you create and format text documents and collaborate with other people in real time. And it is a free web based application in which documents and spreadsheets can be created, edited and stored online.

SQLite: It is Android’s local database. It contains SQLite database management classes that an application would use to manage its own private database.
2.1 Algorithm

Triangulation algorithm: Triangulation is the process of determining the location of a point by measuring angles to it from known points at either end of a fixed baseline, rather than measuring distances to the point directly. The point can then be fixed as the third point of a triangle with one known side and two known angles.

Calculation

With \( l \) being the distance between \( A \) and \( B \) we have

\[
\ell = \frac{d}{\tan \alpha} + \frac{d}{\tan \beta}
\]

Using the trigonometric identities \( \tan\alpha = \sin \alpha / \cos \alpha \) and \( \sin(\alpha + \beta) = \sin \alpha \cos \beta + \cos \alpha \sin \beta \), this is equivalent to:

\[
\ell = d \left( \frac{\cos \alpha}{\sin \alpha} + \frac{\cos \beta}{\sin \beta} \right)
\]

\[
\ell = d \frac{\sin(\alpha + \beta)}{\sin \alpha \sin \beta}
\]

therefore:

\[
d = \ell \frac{\sin \alpha \sin \beta}{\sin(\alpha + \beta)}
\]

3. CONCLUSIONS

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 as QRcode is scanned and its links to the website page of advertisement. The proposed system provides Real-time advertisement to user, which is Convenient as the content is kept down to a minimum. As for the future work this application can be more improved short videos can also be displayed on screen lock of mobile phones.

4. REFERENCES


