

Development of Android Application for Courier Monitoring System

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Abstract :-E-commerce has mature exponentially over the years. the expansion has been characterised by robust consumer demands and also the increasing variety of various merchandise on the market on-line. This successively creates a supplying downside Associate in Nursing a high demand for an efficient messenger service to support the growing markets. it's important for messenger service provider that the delivery of the parcel is being done as quick as potential. one among the messenger service's very important and most vital business method is within the walk parcel delivery. this can be wherever Associate in Nursing economical delivery service are going to be of utmost importance. Associate in Nursing economical system has to be developed so as to facilitate the interaction between the messenger service supplier and consumer to exactly confirm the best route for the parcel delivery. during this paper, Associate in Nursing Android-based application system for messenger service management with walk route trailing module is developed. It is a mobile application that eases the messenger delivery personnel find their thanks to deliver the parcels to the customer's doorsill. the appliance can guide the messenger personnel to urge a listing of messenger information such as address and call info then navigate them to the chosen customers' addresses supported traffic information retrieved from Google Maps API. It will choose the most effective route to the address and inform the customers before inward in order that the shoppers area unit ready to receive the parcel. This walk

route tracking for parcel delivery can provide the basis for an economical messenger service system

I. INTRODUCTION

Now a days, e-commerce stores are mushrooming because of the shift in customers behaviour as additional and additional lookpers opt to shop online. This analysis can produce Associate in Nursing Android-based application which will facilitate the ordering of products. once a salesperson makes Associate in Nursing order, a listing of drug orders submit Associate in Nursing received by an application on the server, then processed till the list goes to the appliance used by the messenger. The order list are going to be displayed within the form of a notification message on the mechanical man device that the messenger uses. This feature can build it simple for messenger to grasp the order while not having to open the appliance initial. to grasp the situation of the messenger WHO is causing the drug, the appliance is supplied with GPS Location, and the coordinates location are going to be sent sporadically to the Server application. the info shows that the utilization of mobile devices is increase year by year. the choice of mechanical man platform thanks to it used way more than another platform like iOS, Windows Phone, and Blackberry. information from International information Corporation (IDC) shows that mechanical man incorporates a market share of seventy eight.7% in 2013, and increased in 2014 to eighty one.5% of different platforms iOS, Windows Phone, Blackberry, and others supported that info, it suggests that the foremost of the mobile devices that folks use area unit running on the Android Platform.

II. LITERATURE REVIEW

A. Global positioning system (GPS)

Global Positioning System (GPS) may be a tool or system which will be wont to inform users wherever the user's location relies on satellite [6]. information sent from satellite may be a radio signal with digital information. GPS positioning relies on distance measurements created to multiple satellites quickly. The coordinates of a degree on earth are often determined from the results of measurements to the four satellites which will be properly captured. per analysis conducted by Rifqi Andika sani et al [7], GPS positioning is split into 2 methods: Absolute methodology or referred to as purpose positioning, is the method of positioning by solely supported one receiver solely. Accuracy of position among a couple of meters (not in high accuracy) and customarily solely supposed for navigation purposes. The relative methodology referred to as differential positioning is positioning mistreatment over one receiver. One GPS mounted at a location on earth, and endlessly receives signals from satellites among a nominal fundamental quantity and used as references just like the others. The positi on of this method has high accuracy (generally but one meter) and is applied for geodesic or mapping surveys that need high.accuracy.

B. Mechanical man cloud to device electronic communication (C2DM)

Android Cloud to Device electronic communication may be a service that helps app developers to send information from servers to apps installed on mechanical man devices. C2DM incorporates a mechanism wherever the server will offer or retrieve info to the consumer (application on mechanical man devices). This C2DM handles all parts of the message line up to causing messages to the application. so as to run this C2DM service properly, it needs some supporting parts that area unit as follows [8]: Android device, a tool running mechanical man apps that use C2DM. Third-party Application Server, that may be a server that is a part of the C2DM method. it's this server that sends information to mechanical man apps via C2DM server (Google Cloud). This server should even be equipped with a back-end so as to manage the method of C2DM that's experiencing the problem. C2DM Server, id est Google servers directly involved in retrieving messages from Third-party Application Server and causing them to mechanical man apps

C. SQLite

SQLite may be a computer database management system that ACID-compliant (atomic, info consistency, isolation, and durability) [9]. SQLite is Associate in Nursing mechanical man feature which will be used to produce databases. SQLite is incredibly adequate in terms of resources, as a result of the utilization of memory is tiny, fast, and light. during this analysis, SQLite are going to be wont to store order information and conjointly coordinate the situation of the messenger. With the utilization of SQLite, info update to the server are going to be in Asynchronous mode. equally the device doesn't have internet access once in use

D. Google Maps API

The Google Maps API is Associate in Nursing API provided by Google and can be used at no cost to show geographic info in the style of folders. Google maps API is useful in translating geographic info like coordinate points into graphical kind i.e. maps. The Google Maps API is employed for internet applications that may be utilized by distributors to map the movement of messenger positions and for mechanical man apps to be utilized by messengers themselves to search out out the situation of the drug buyers.

E. System Framework and design

The system framework and design provides the broad overview of the system moreover because the work flow of the application as shown in Figure one. This diagram shows the system's interconnection between every module and also the platforms that may be utilized in every of the system's components.

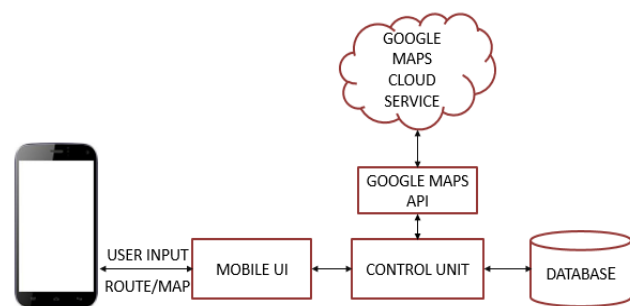


Figure 1. System Architecture for Route Tracking Application

III. METHODOLOGY

Methodology to develop mechanical man Application for messenger Monitoring System are often seen in Fig. 2, and also the transient description of every stage can explained as follows.

A. code need analysis

At this stage, the scientist explained however the distribution of drugs from distributors to pharmacies or hospitals. It has to make the appliance of this messenger watching as a tool to assist within the method of distribution of medicine. From the requirements of making the appliance combined to practical and Non- Functional demand (FR & non-FR).

B. Application style

At this stage, will create and documented the system design. The design of the system includes the explanation of each actor involved, making use case along with descriptions of each use case, sequence diagram, class diagram and method in each Class source code, and to make interface design. Next step is creating the database design, and then mapping the tables in each application. The design of the application is using object-oriented programming approach, every function to be developed can be explained well.

C. produce drug info

At this stage can produce info because the list of medicine. The process of aggregation information by extracting drug list info on drug distributor company web site. The drug info is useful to be reference once input new order. D. Application development At this stage the appliance developed supported the Application style that has been created before. The technology wont to produce applications are: mechanical man SDK, GPS Location, C2DM, SQLite, Google Maps API, and PHP- based internet development.

D. Application development

At this stage the application developed based on the Application Design that has been made before. The technology used to create applications are: Android SDK, GPS Location, C2DM, SQLite, Google Maps API, and PHP-based web development.

E. Application testing

once the appliance is completed, the appliance testing is completed to ascertain whether or not the appliance is running properly or not in compliance with Fr and non- FR embodied within the demand Traceability Matrix. This application also will be done compatibility check that is checking the appliance by running on test situation or test case in numerous mechanical man devices beginning mechanical man API version nineteen till mechanical man API latest version (in this research mechanical man API latest version is 23). mechanical man API testing within the vary is as a result of the info synchronization function that may be utilized in the appliance during this Final Project runs well within the vary of API.

F. How it works:

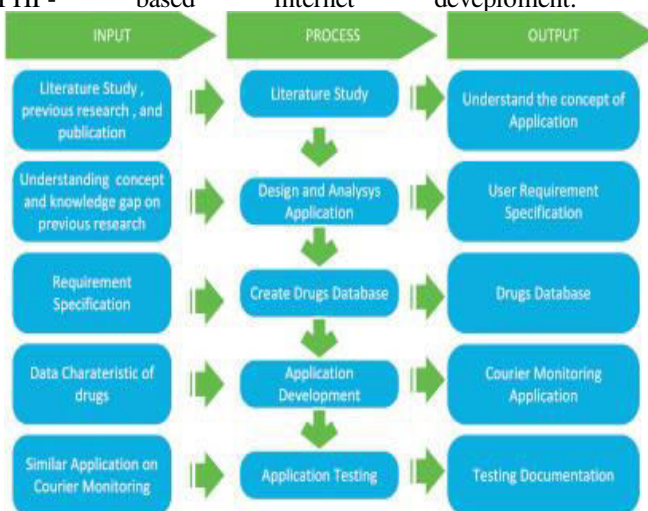


Fig. 2. Methodology to develop android application.

The planned system presents a far better method of causing and trailing your packages. mistreatment the planned system, here area unit the steps you have got to follow to send a packages:

- **Open the mobile messenger app and key within the details of the package you wish to send.**
- **Key within the details of the recipient**
- **The system can tell you ways abundant it'll price to send the package and also the date of arrival of the package.**
- **after you complete the dealing, a courier agent involves your address to select up the package**
- **after you package leaves your destination, details regarding its location are going to be sent to you via mobile notification**
- **just in case you have got any complain to lodge, you can still fuck via the mobile app.**
- **there's conjointly provision for messenger agent to trace the route between 2 points with the proposed system.**

IV

CONCLUSION

From the implementation of this analysis, the subsequent conclusions are often drawn:

- 1) the method of ordering medication and watching the location of the messenger is running well by mistreatment Google Cloud electronic communication technology, Google Maps API, Java, and PHP.
- 2) Through testing the system is understood that the functionality of the appliance is running Well

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