

SUGGESTIVE IMPLEMENTATION OF A COHESIVE MODEL FOR DELIVERY OF HETEROGENOUS PRODUCTS USING ANDROID

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Abstract: The purpose of this research is making a delivery application based on Android with options like New Order, Order History, Order Status, Tracking Order, and Setting Profile features. The research method used in this research is water model of System Development Life Cycle (SDLC) method with following phases: requirement definition, analysing and determining the features needed in developing application and making the detail definition of each features, system and software design, designing the flow of developing application by using storyboard design, user experience design, Unified Modeling Language (UML) design, and database structure design, implementation of a unit testing, making database and translating the result of designs to programming language code then doing unit testing, integration and System testing, integrating unit program to one-unit system then doing system testing, operation and maintenance, operating the result of system testing and if any changes and reparations needed then the previous phases could be back. The result of this research is an ordering food application based on Android for customer and courier user, and a website for restaurant and admin user. The conclusion of this research is to help customer in making order easily, to give detail information needed by customer, to help the customer in receiving order at home.

Keywords: Order, Android, Delivery, Tracking, Software, Ecommerce, Application

Introduction

With the rapid development of information technology, web application and Android application have been increasing in recent years. Compared with the desktop application, the advantages of web application for users are: -

1. No need to install and update
2. Easily visit through browsers

The advantage of the Android application: -

1. Mobile application is convenient to carry.
2. Global partnerships and large install base.
3. Powerful development framework.
4. Open marketplace for distributing apps.

The android applications have more advantages. But there is a problem nowadays. Customers need everything to be home delivered. Customers look for ease of access.

This delivery application is the key to solve this problem. Using this application, the customers need not go anywhere by themselves, but they can order their belongings through Android mobiles from anywhere to anywhere.

In this project proposal we are going to understand the whole process of how the Android application which we will be developing will be working to help businesses to become reliable and efficient.

On the basis of this document we will get a rough sketch of how the application will look as well as a rough idea of how the application will work.

Literature Review

eCommerce in India Accelerating growth [1] The eCommerce sector has seen unprecedented growth in 2014. The growth was driven by rapid technology adoption led by the increasing use of devices such as smartphones and tablets, and access to the internet through broadband, 3G, etc., which led to an increased online consumer base. Furthermore, favored demographics and a growing internet user base helped aid this growth. In terms of highlights, the growth shown by homegrown players such as Flipkart and Snapdeal and the huge investor interest around these companies displayed the immense potential of the market.

With the entry of eCommerce behemoths such as Amazon and Alibaba, the competition is expected to further intensify. Both these international players come with deep pockets and the patience to drive the Indian eCommerce market. Also, their strong domain knowledge and best practices from their international experience give them an additional edge. Additionally, these companies have been part of markets where they have seen the eCommerce market evolve and are aware of the challenges and strategies to address issues thereof.

Indian companies realize this, and are therefore aiming to continue their focus on expanding sellers and selection on their platforms, innovating on multiple customer touch points, and providing seamless and rapid delivery services in order to compete with the

international entities. Competition is expected to continue, with these eCommerce companies experimenting with different ways to attract customers and increase online traffic.

The Indian government's ambitious Digital India project and the modernization of India Post will also affect the eCommerce sector. The Digital India project aims to offer a one-stop shop for government services that will have the mobile phone as the backbone of its delivery mechanism. The program will give a strong boost to the eCommerce market as bringing the internet and broadband to remote corners of the country will give rise to an increase in trade and efficient warehousing and will also present a potentially huge market for goods to be sold.

For India Post, the government is keen to develop its distribution channel and other eCommerce related services as a major revenue model going ahead, especially when India Post transacted business worth 280 crore INR in the cash-on-delivery (Cod) segment for firms such as Flipkart, Snapdeal and Amazon. Both these projects will have significant impact on increasing the reach of eCommerce players to generally non-serviceable areas, thereby boosting growth.

Building exchange relationships: perceptions of sales representatives' performance [2] To get the maximum benefit from eCommerce business, a large number of companies are adopting different innovative ideas and operating models including partnering with online marketplaces or setting up their own online stores. Some key operating models include the following:

- Marketplace and pick-up & drop is a model where sellers often partner with leading marketplaces to set up a dedicated online store on the latter's website. Here sellers play a key role of managing inventory and driving sales. They leverage on high traffic on the marketplaces' website and access their distribution network. However, the sellers have limited say on pricing and customer experience. Self-owned inventory is a model where the eCommerce player owns the inventory. The model provides better post purchase customer experience and fulfilment. It provides smoother operations due to ready information on the inventory, location, supply chain and shipments, effectively leading to better control over inventory. On the flipside, however, there are risks of potential mark downs and working capital getting tied up in inventory.

Private label reflects a business where an eCommerce company sets up its own brand goods, which it sells through its own website. This model offers a wide-ranging products and pricing to its customers and competes with branded labels. Here, margins are typically higher than third-party branded goods.

Proposed Enhancement

a. Application Architecture

In this application, first the user has to sign up using their mobile number or their Email. Then they will be assigned a unique login id. After login and sign up process the user will get to the main screen. The main screen will consist of two options i.e. START DELIVERY and TRACK DELIVERY. In the option of START DELIVERY, there will appear a screen where the user will give information of what type of package is to be delivered, weight of the package and an undertaking that the package is nothing illegal as per government rules. Then the user will get to a map screen to input the pickup address of their package. The pickup time will be shown to the user as per the availability of the delivery team. After selecting the pickup address, the user will then select the drop address on a map screen. The user will be charged on the basis of the distance between pickup location and drop location as well as weight of the package. Then there will be a screen showing options to select a payment method.

After payment the user will be given a delivery id needed to verify at the pickup location.

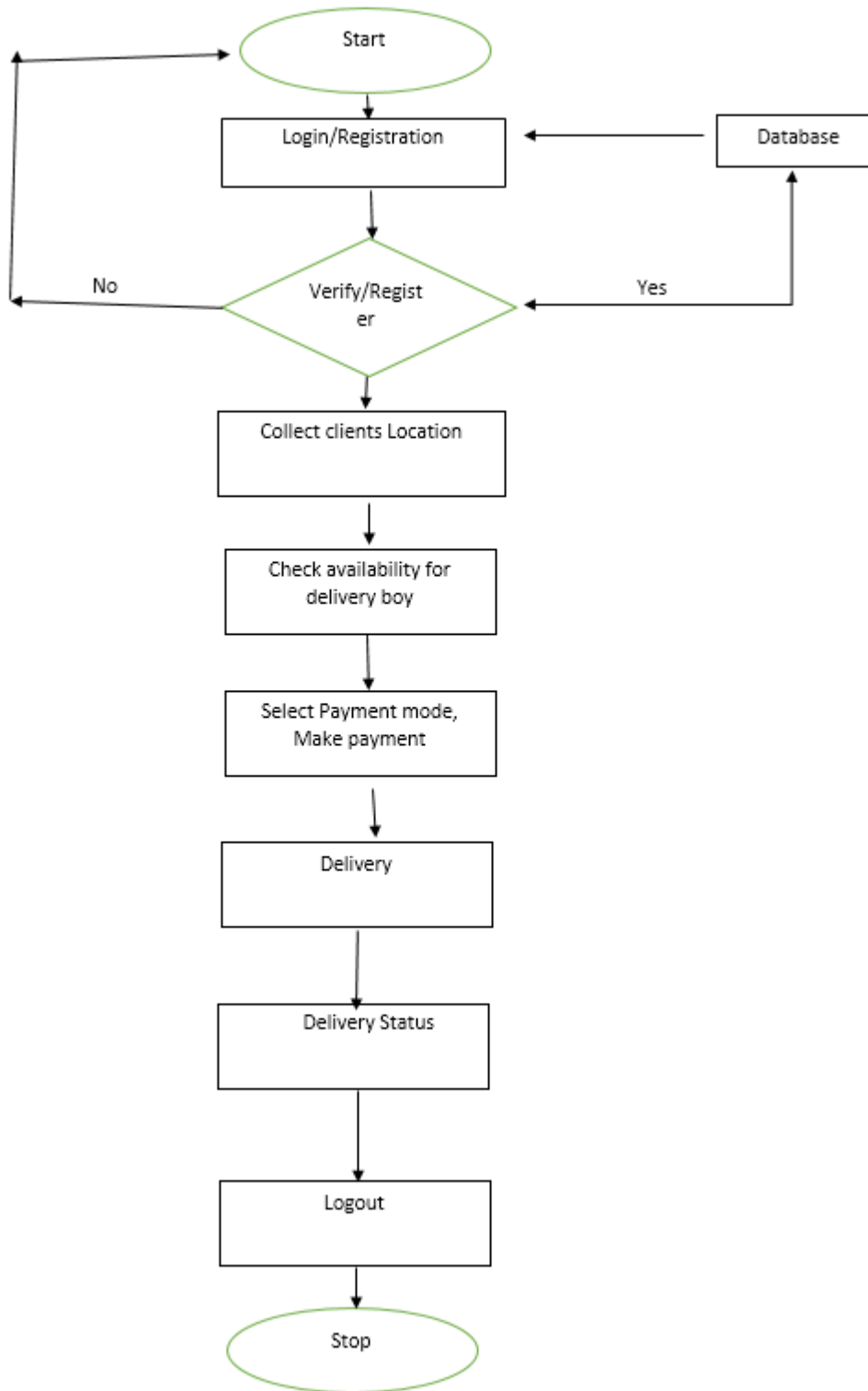
The user will return to the first main screen of the application.

In the option of TRACK DELIVERY, the user will be able to see the real time location of their package on a map screen.

Design



Flow Chart



Future Scope

Over the year or so, there has been a trend of exclusive tie-ups between eTailers and established boutiques, designers, and high-end lifestyle and fashion brands. For instance, in 2014, Jabong added international fashion brands such as Dorothy Perkins, River Island, Blue saint and Miss Selfridge, along with local fashion brands through Jabong Boutiques. Similarly, Myntra benefited from exclusive tie-ups with brands such as Harvard Lifestyle, Desigual and WROGN from Virat Kohli.

Similarly, this application can become an Ecommerce platform.

Conclusion

The results of this thesis have provided interesting insights on how parcel delivery service concept should be developed in order to meet the consumers' requirements. When the improvement ideas that were received from the consumers are taken into consideration in designing a new and improved parcel delivery service concept, it will enhance the consumers' satisfaction and usability of the service. Additionally, the results of this research paper have provided positive consequences including both cost savings and increased operational efficiency.

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