I-Smart shop on android platform

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Abstract - *Android has become a popular platform for online shopping applications. However, online shopping applications present new challenges to the developer i.e. we not only need to ease the shopping process for the user but also represent every feature in a more simple and attractive way which is not available in the existing applications . Here we developed an application which smoothly works for every input condition. Features like sharing the product, promo codes for user, product cancellation etc. are included in this app. Two main modules in this project are Admin and User. Different logins are there for both admin and user. Only admin has the authority to add the product. Admin can check the list of all the orders from the app. Existing user can directly log in. But if the user is new then he/she have to register first. User can buy the product with discount if he/she has the promo codes. User can cancel the product if he wants after buying it. While giving another order user can check the list of all the previous orders. User will get different categories such as Home appliances, Electronics, Watches, Bags etc. He will get different products in each category. User can give his/her review about the product. User can get promo codes by clicking on sharing button. Sharing can be done via message in this app. Tracking is one of the new feature implemented in this project. Delivery boy can update his status i.e. whether the product received or not along with destination and time which will be visible to the user after clicking on track button. However some apps already have tracking facility but not in the convincing manner.*

Key Words: Update, User, Product, Login, Admin, Tracking, Promo codes.

1. INTRODUCTION

This software helps customer to find different Products, their features, and new updates easily. It is designed such a way that one can view all the updates of the Product from any place through online. The software will help in easy maintaining and updating products in the website for the administrator. Also quick and easy comparison of different products for the customers.

Customer can browse through the product catalog and add the items to shopping cart. He can proceed to checkout as long as his shopping cart is not empty. Customer will require to login to the system when he proceed to checkout, or he can create an account if he not yet have one. The order will charge to the credit card registered in customer's account. Customer need to provides full name, email address, phone number, credit card and billing address details when creating an account. Customer can login to the system to maintain his account information, such as changing phone number, Address, and credit card details, and check the status of his orders. Upon order received, the sales staff will process the order by charge to customer's credit card. Once the order has been charged, he will then mark order as paid and pass to Courier Company and deliver them to Customer. If the items customer ordered is out of stock, then the order will mark as on hold. Once the item(s) arrived, the order will pass to Courier Company for delivery. Courier Company will pack the item with standard packaging, but if the order is marked as gift, then the items will pack as Gift. If the items arrived with damage, customer can return it by register in the online shop. Courier Company will collect the item from customer and sales staff will refund the money for that item. Marketing staff responsible to maintain the product catalog. He can also setup the promotion item list and send promotion email to customer.

1.1 Goals

- The main objective of this project is to save the Customers time in purchasing.
- To provide flexibility.
- To provide ease of understandability.

1.2 Objectives

- This software helps customer to find different Products, their features, and new updates easily.

- It is designed such a way that one can view all the updates of the Product from any place through online.
- The software will help in easy maintaining and updating products in the website for the administrator.
- Also quick and easy comparison of different products for the customers.

2. SOFTWARE AND HARDWARE REQUIRENMENT

2.1 Software Requirement
- Operating System: Windows 7
- Web Brower: Mozilla Firefox or any
- Software : Microsoft Visual Studio Express 2012

2.2 Hardware Requirement

Table -1: Hardware Requirements

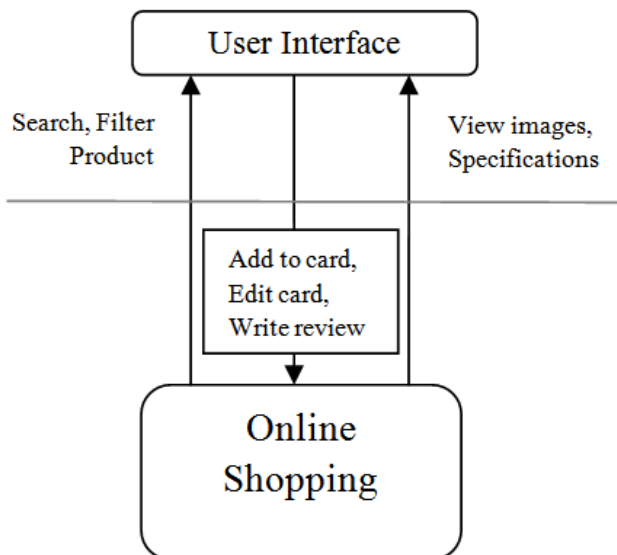| Sr. No.	Parameters	Min. Req.	Justification
1.	CPU Speed	2GHz	Remark Required
2.	RAM	3GB	Remark Required
3.	Processor	Pentium	Remark Required
4.	Hard Disk	40GB	Remark Required

3. ARCHITECTURE

Figure 1- Architecture of the system

Basically the I smart shop on android platform is a client server architecture. Client is nothing but the end users who are shopping from the application and Sever accept users requests. User interface is our application views or different menus from the application.

Request: User activities are nothing but the requests, Requests are in the form of search the products, view specifications, Add product to add, place order, cancel order, write review etc.

Response: Server gives acknowledgments in the form of response. Responses are successful login, order confirmation, registration for new user etc.

We can do shopping without login, as a guest user. There are some promotion codes for new users and old user.

4. TOOLS AND TECHNOLOGIES

HTML: Hyper Text Markup Language, commonly abbreviated as HTML, is the standard markup language used to create web pages. Along with CSS, and JavaScript, HTML is a cornerstone technology used to create web pages,[1] as well as to create user interfaces for mobile and web applications. Web browsers can read HTML files and render them into visible or audible web pages. HTML describes the structure of a website semantically and, before the advent of Cascading Style Sheets (CSS), included cues for the presentation or appearance of the document (web page), making it a markup language, rather than a programming language. HTML elements form the building blocks of HTML pages. HTML allows images and other objects to be embedded and it can be used to create interactive forms. It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets. Tags such as ¡img /¿ and ¡input /¿ introduce content into the page directly. Others such as ¡p¿...¡/p¿ surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page. HTML can embed scripts written in languages such as JavaScript which affect the behavior of HTML web pages. HTML markup can also refer the browser to Cascading Style Sheets (CSS) to define the look and layout of text and other material. The World Wide Web Consortium (W3C), maintainer of both the HTML and the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

Bootstrap: Bootstrap is a free and open-source collection of tools for creating websites and web applications. It contains HTML- and CSS-based design templates for typography, forms, buttons, navigation and other interface components, as well as optional JavaScript extensions. It aims to ease the development of dynamic websites and web applications. Bootstrap is a front end web framework, that is, an interface for the user, unlike the serverside code which resides on the "back end" or server. Bootstrap is the second most-starred project on GitHub, with over 93K stars and more than 40K forks.

PhoneGap: Apache Cordova (formerly PhoneGap) is a popular mobile application development framework originally created by Nitobi. Adobe Systems purchased Nitobi in 2011, rebranded it as PhoneGap, and later released an open source version of the software called Apache Cordova. Apache Cordova enables software programmers to build applications for mobile devices using CSS3, HTML5, and JavaScript instead of relying on platform-specific APIs like those in Android, iOS, or Windows Phone. It enables wrapJSCOE, Department of Computer Engineering 2015-16 48 ping up of CSS, HTML, and JavaScript code depending upon the platform of the device. It extends the features of HTML and JavaScript to work with the device. The resulting applications are hybrid, meaning that they are neither truly native mobile application (because all layout rendering is done via Web views instead of the platform's native UI framework) nor purely Web-based (because they are not just Web apps, but are packaged as apps for distribution and have access to native device APIs). Mixing native and hybrid code snippets has been possible since version 1.9. The software was previously called just "PhoneGap", then "Apache Callback". As open-source software, Apache Cordova allows wrappers around it, such as Appery.io or Intel XDK. PhoneGap is Adobes productized version and ecosystem on top of Cordova. Like PhoneGap, many other tools and frameworks are also built on top of Cordova, including Ionic, Monaca, TACO, the Intel XDK, and the Telerik Platform.These tools use Cordova, and not PhoneGap for their core tools. Contributors to the Apache Cordova project include Adobe, BlackBerry, Google, IBM, Intel, Microsoft, Mozilla, and others.

ASP: Active Server Pages (ASP), later known as Classic ASP or ASP Classic, is Microsoft's first server-side script engine for dynamically generated web pages. ASP.NET, first released in January 2002, has superseded ASP.

MVC: Modelviewcontroller (MVC) is a software architectural pattern for implementing user interfaces on computers. It divides a given software application into three interconnected parts, so as to separate internal representations of information from the ways that information is presented to or accepted from the user. Traditionally used for desktop graphical user interfaces (GUIs), this architecture has become extremely popular for designing web applications.

5. TEST CASES FOR GUI

| Sr. No.	Test Case ID	Step Description	Input Data	Executed Result
1.	Test log 1	Incorrect User Name	System	Text should be typed and displayed
		Incorrect Password	System	Text should be typed and displayed In encrypted form
		Click on button		Login Unsuccessful
2.	Test log 2	Incorrect User Name	System	Text should be typed and displayed
		Correct Password	Admin	Text should be typed and displayed In encrypted form
		Click on button		Login Unsuccessful
3.	Test log 3	Correct User Name	Admin	Text should be typed and displayed
		Incorrect Password	System	Text should be typed and displayed In encrypted form
		Click on button		Login Unsuccessful
4.	Test log 4	Correct User Name	Admin	Text should be typed and displayed
		Correct Password	Admin	Text should be typed and displayed In encrypted form
		Click on button		Login Successful

6. WORKING FLOW
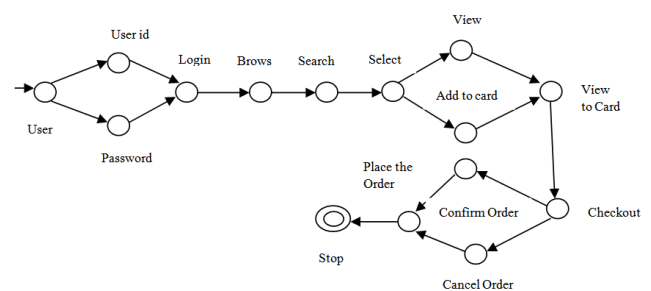
Fig-2: State Transition Diagram and Flow

6. CONCLUSIONS

In this way we have successfully implemented the features like tracking, sharing etc. without any failure. Both the modules Admin and User have different logins. All the options provided by both admin and user are executed. This app runs smoothly for every input condition. All the outputs generated are correct. Every feature in this app is represented in simple and attractive way. Thus this app proved to be reliable and easy to understand and process.

7. FUTURE SCOPE

In future we can show the tracking using map. We can provide more payment methods like net banking, credit card/debit card, paytm , PayUMoney etc. in future. We can extend the tracking of product between the cities. Sharing can be done through facebook, whatsapp etc. in future. We can introduce more categories in future such as Sports, Books etc.

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