



**KHULNA UNIVERSITY OF ENGINEERING & TECHNOLOGY
(KUET)**

ONLINE BUSINESS PLATFORM

Desktop Based E-Commerce Application

CSE 3200 : System Development Project

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TABLE OF CONTENTS

Title	Page No.
Cover Page	1
Acknowledgement	2
Table of Contents	3
 Chapter 1 : Introduction	
1.1 Introduction	5
1.2 Statement of Problem	5
1.3 Objectives	6
 Chapter 2 : Brief Description	
2.1 Brief	7
 Chapter 3 : Desktop Based System	
3.1 User Section	8
3.2 Admin Section	13
3.3 Database Section	15
 Chapter 4 : System Overview	
4.1 Initialize	17
4.2 System Requiement	18
4.3 System Compatibility	18
4.4 Workflow	18

Chapter 5 : Conclusion and Recommendation

5.1 Conclusion	20
5.2 Limitation	20
5.3 Future Work	20

References	21
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Chapter 1

Introduction

1.1 Introduction

Well, Electronic gadgets have completely changed the game for the E-commerce industry. In the last few years the strategies of large and small companies alike have shifted to become more mobile focused as consumers have rapidly embraced mobile shopping. The applications of E-commerce are used in various business areas such as retail and wholesale and manufacturing.

The E-commerce software applications are as follows:

E-commerce has a number of applications in retail and wholesale. E-retailing or on-line retailing is the selling of goods from Business-to-Consumer through electronic stores that are designed using the electronic catalog and shopping cart model. Cybermall is a single Website that offers different products and services at one Internet location. It attracts the customer and the seller into one virtual space through a Web browser.

Data collection about customer behavior, preferences, needs and buying patterns is possible through Web and E-commerce. This helps marketing activities such as price fixation, negotiation, product feature enhancement and relationship with the customer.

Financial companies are using E-commerce to a large extent. Customers can check the balances of their savings and loan accounts, transfer money to their other account and pay their bill through on-line banking or E-banking. Another application of E-commerce is on-line stock trading. Many Websites provide access to news, charts, information about company profile and analyst rating on the stocks.

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1.2 Statement of Problem

An online business platform. Now that's a complicated process to organize. An e-commerce website provides shoppers with a high-tech interface (the front-office, or front-end) for them to browse the online store seamlessly in order to convert them easily into customers. This includes choosing one or several items, adding them to the cart, choosing their favorite delivery options, paying and so on. It also provides the merchant with the back-office (or back-end) that is going to help them organize their catalog, manage their sales, their stock, accounting, etc.

1.3 Objectives

E-commerce stands for electronic commerce which means to transfer the conversation or information across the **internet**. E-Commerce allows people to sell and buys goods or services over an electronic medium, like the internet. We all know very well e-commerce is online shopping.

Catch more customers.

- Increase the traffic.
- Make more sales.
- Build a good will.
- Best customer service.
- Minimum Shipping time.
- Increase the number of reviews.
- Get Positive feedback.
- Reduce the number of refund item.
- Customer follow up

Chapter 2

Brief Description

2.1 Brief

Before building or developing an e-commerce Desktop based Application (Windows forms application) you need to focus on the following key areas-

1. Deep market research
2. Efficiency and Accuracy in your work
3. Cost
4. Don't keep the users waiting
5. Know your target audience
6. Focus on your market strategy

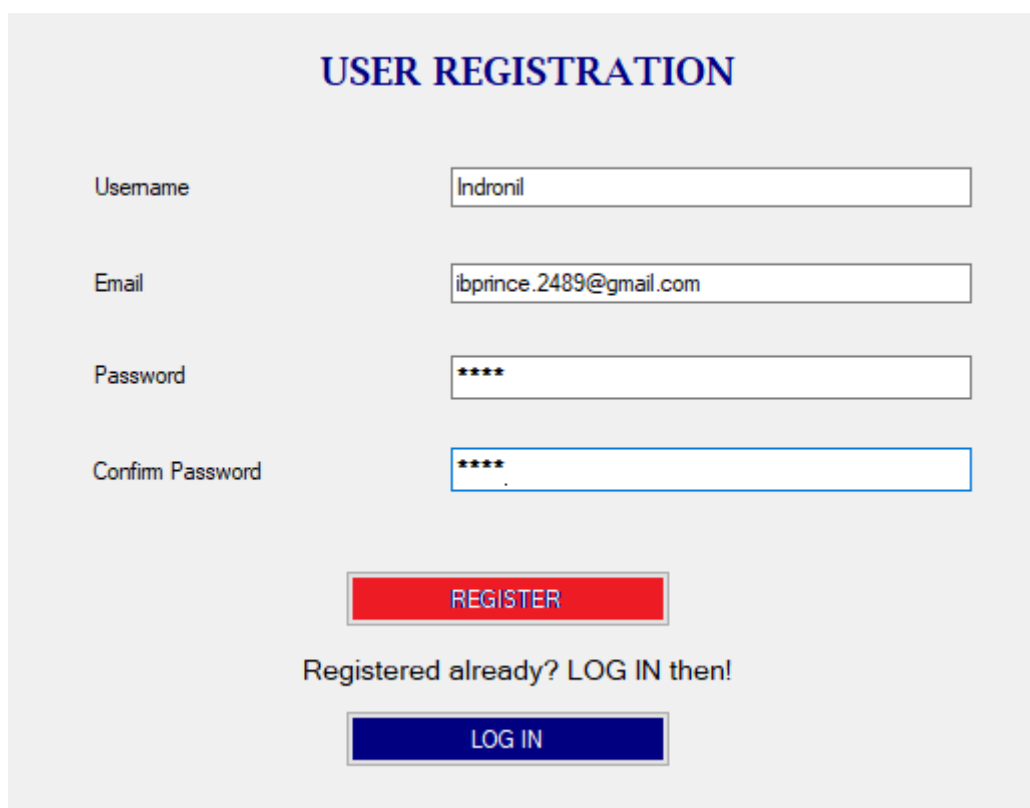
Chapter 3

Desktop Based System

3.1 User Section

- **User Registration**

At first a user must have to register to use the application by inputting Username, Email and Password. User data will be stored in the firebase database.



The image shows a web form titled "USER REGISTRATION" in blue capital letters. The form has four input fields: "Username" with the value "Indronil", "Email" with the value "ibprince.2489@gmail.com", "Password" with four asterisks, and "Confirm Password" with four asterisks. Below the fields is a red "REGISTER" button. Underneath the button is the text "Registered already? LOG IN then!" followed by a blue "LOG IN" button.

Field	Value
Username	Indronil
Email	ibprince.2489@gmail.com
Password	****
Confirm Password	****

REGISTER

Registered already? LOG IN then!

LOG IN

- **User Login**

- To get access to application contents users have to log in to the application by inputting email and password. Given password should be matched to the email of the user and will get the access if it matches.

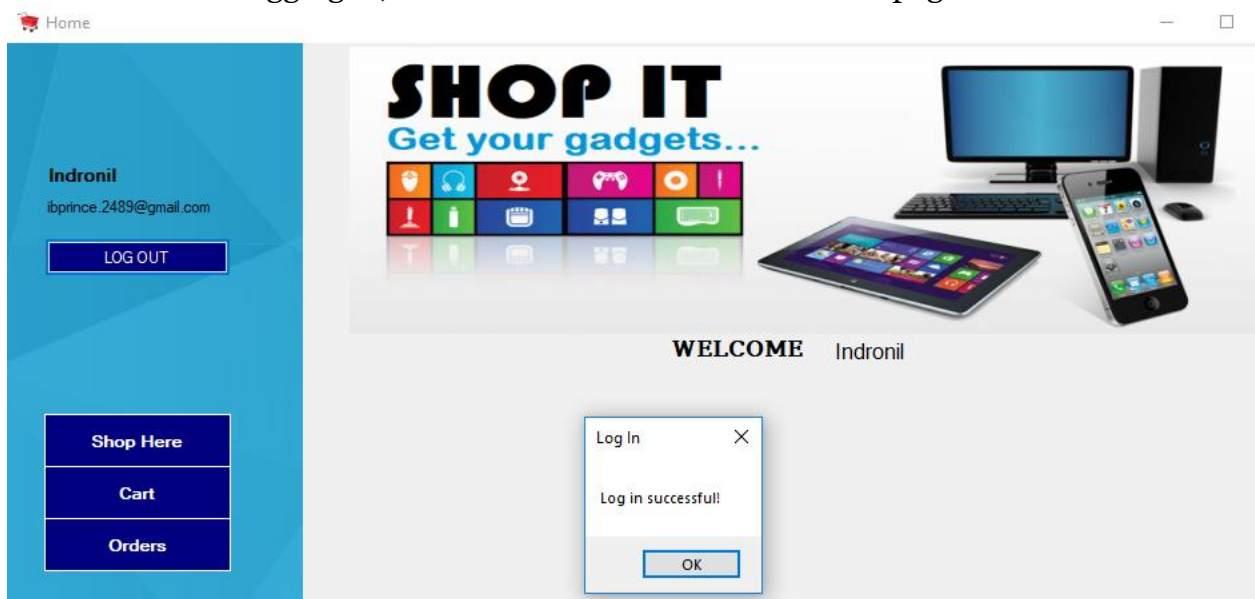
USER LOG IN

Email

Password

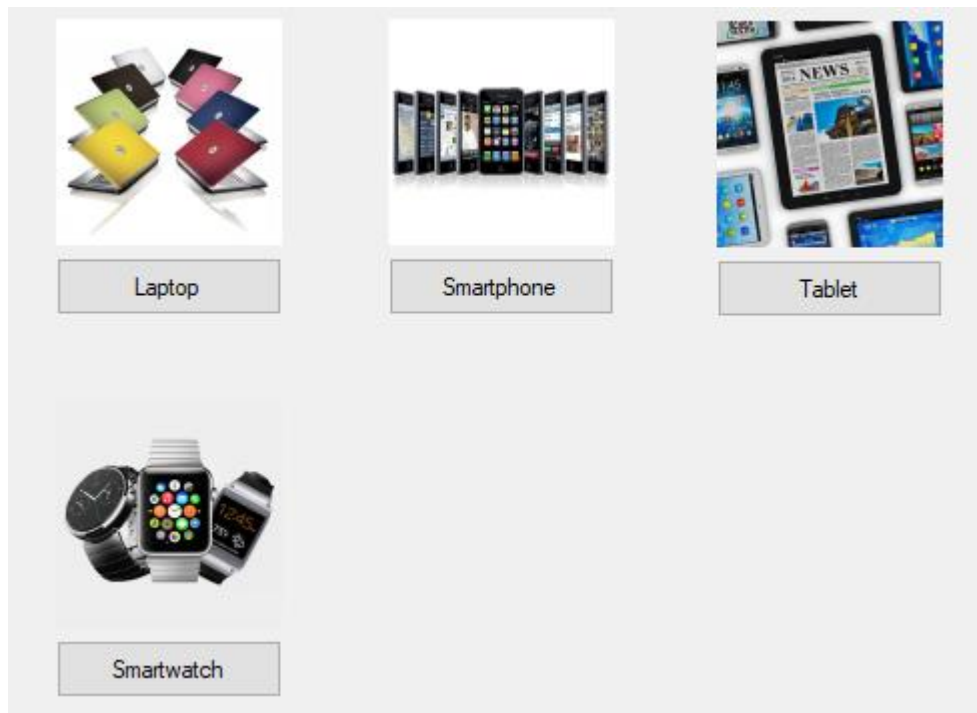
Not registered? REGISTER now!

- After logging in, user will be redirected to the home page.



- **Search Products**

- Next user has to search his desired products by clicking shop here to redirect to the product categories. From there s/he can choose the desired category of product to get all the listed products under the category.



- As an example, if s/he wants to get the tablets view, clicking there s/he will get all the listed tablets.

Amazon Kindle Fire	Tablet	12500	5		View details
Apple iPad	Tablet	80000	2		View details
Huawei MediaPad T3	Tablet	11000	5		View details
Samsung Galaxy Tab 3	Tablet	17000	3		View details

- **Get Product Details**


- To get the details of the product, go to the view details and s/he will get a new window with detailed description of any product.

Product name : **Huawei MediaPad T3**

Product type : **Tablet**

Price : **11000**

Available : **5**



- 1 +

ADD TO CART

- From this form, user can add desired number of products to his/her cart to keep it for ordering in the next.



- **Add to cart**

- After adding products to the cart, user can watch the cart.

ASUS x441a	Laptop		45000	1	45000	Remove
Google Watch 2	Smartwatch		32000	1	32000	Remove
Nokia 7 Plus	Smartphone		40000	1	40000	Remove

- **Remove from cart**

- User can remove any of his products anytime if he wishes. Before confirming order it can be done by the users.

Product Name	Type	Image	Unit Price	No's	Sub Total	
Google Watch 2	Smartwatch		32000	1	32000	Remove
Nokia 7 Plus	Smartphone		40000	1	40000	Remove



Cart

Product removed from cart!

OK

- **Get Order Ready**

- User will be shown details of the order with total to be paid along with cost, shipping and VATs. After all this, if the customer wants to proceed, s/he will confirm the order to place.

Product Name	Type	Image	Unit Price	No's	Sub Total
Google Watch 2	Smartwatch		32000	1	32000
Nokia 7 Plus	Smartphone		40000	1	40000
Total Price :					72000
VAT (5%) :					3600
Shipping :					100
GRAND TOTAL :					75700
Place Order					

- **Placing Order**

- User will input his delivery address, contact number and payment method for confirming the order.

Address :
Indronil Bhattacharjee
Room no. 303
2nd floor
Fazlul Haque Hall
Khulna University of Engineering & Technology
KUET
Khulna 9203

Contact No : 01*****

Payment Method :
☒ **Cash On Delivery**
☐ **Credit Card**
☐ **Bkash**

Checkout

- **Payment Procedure**

- The user will be notified how the payment procedures will be performed.

Cash On Delivery

Complete you payment to the delivery person after receiving your products.

3.2 Admin Section

- **Admin Login**

- Admin will login to redirect himself to the following page to control users and orders of the users.
- Admin can also add new products to the collections.



- **Maintain Users**

- Admin can control users. He can remove any users if he gets him doing inappropriate deeds and also gets the order detail of each user.

Username	Email		
Abir	abir99@yahoo.com	Remove	User's Orders
Muin	ahmuin@gmail.com	Remove	User's Orders
Andrew	andrew@yahoo.com	Remove	User's Orders
Indronil	ibprince.2489@gmail.com	Remove	User's Orders
Kanon	kanon104@gmail.com	Remove	User's Orders
Manon	manonrahman.106@gmail.com	Remove	User's Orders
Maruf	maruf_jcc@gmail.com	Remove	User's Orders
Raihan	raihan120@yahoo.com	Remove	User's Orders
Sourov	sourov.jcc@yahoo.com	Remove	User's Orders
Zaman	zaman.98@yahoo.com	Remove	User's Orders

- **Maintain Orders**

- Admin can control orders. He can change the tracking of the users when he gets confirmation of placements, payments and deliveries.

Username	Order Id	Track	Details
ibprince_2489@gmail_com	ibprince_2489@gmail_com__1	Confirmed	Order Details
kanon104@gmail_com	kanon104@gmail_com__1	Confirmed	Order Details

- **Add new products**

- Admin can add new products to the stores.

ADD PRODUCT

Product Name :

Product Type :

Price :

Available :

Image :

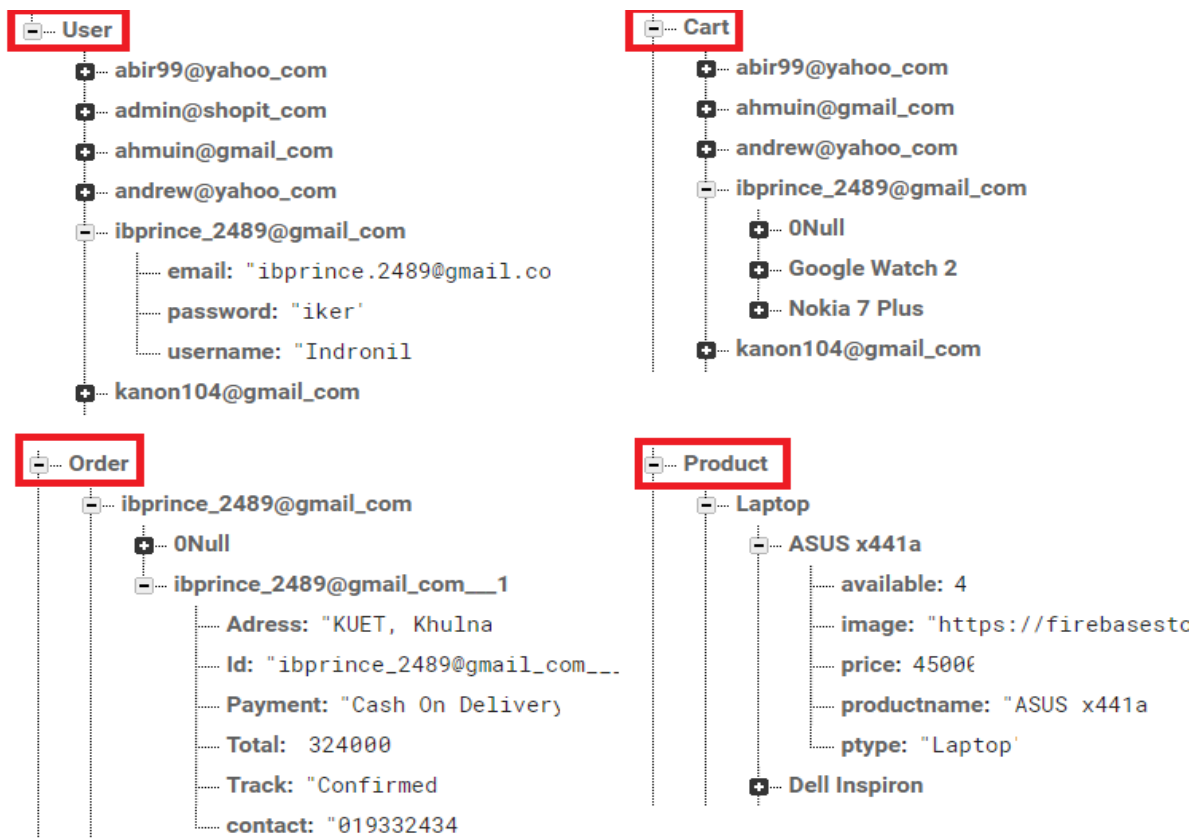
Choose Image

ADD PRODUCT

3.2 Database Section

- **Firestore Realtime Database**

- Firestore realtime database has been used in this application to use from any windows device and update realtime.



- Four nodes have been used named as User(with sub-nodes username, email, password), Cart(with sub-nodes user id and user's products), Product(with sub-nodes product name, type, price, image and available) and Order(with sub-nodes id, address, track, contact information) to register, login, carts, orders, detail of the orders etc.

Chapter 4

System Overview

4.1 Initialize

With the touch of digitization, the entire brick and mortar commerce arena revamped itself into e-Commerce, wherein people started shopping online with the very ease provided by their devices, that too in the very comfort of their home.

E-Commerce website, what once was a revolution has been commemorated by e-Commerce mobile application. Indeed! E-Commerce mobile apps with the slogan, “Shop on-the-go” are reigning over the smart users and their smartphones today.

*What type of e-Commerce app do you want to launch your business—**Desktop based or Mobile based?***

1. Are you selling your products or Vendors will register?
2. Who is your target audience?
3. Who will manage the delivery, you, your vendor or 3rd party?
4. How they can upload and change product pricing?
5. How commission will work, Can vendor take the payment directly?
6. Who can leave review, only verified customers?

Once this is sorted, you can move to the next important step which involves defining the right features for your e-Commerce Mobile Application.

Features are the reflection of your USP. That is going to make all the difference for your target audience. Basically, they are but the deciding factors of whether your revenue grows or flows away to your competitors. Hence, it is important to plan the features for developing your e-Commerce mobile app.

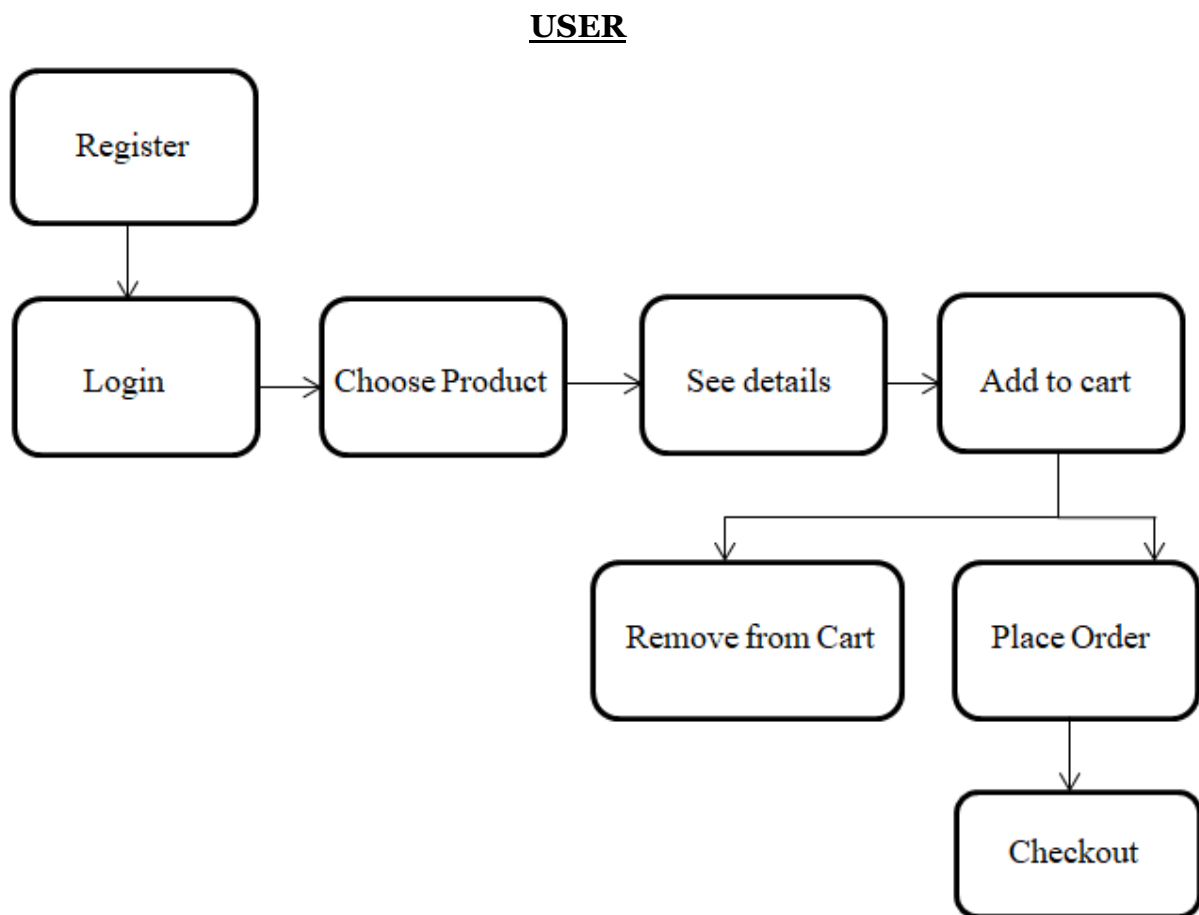
4.2 System Requirement

- Firebase Realtime Database
- Firebase Cloud Storage
- Visual Studio
- C#

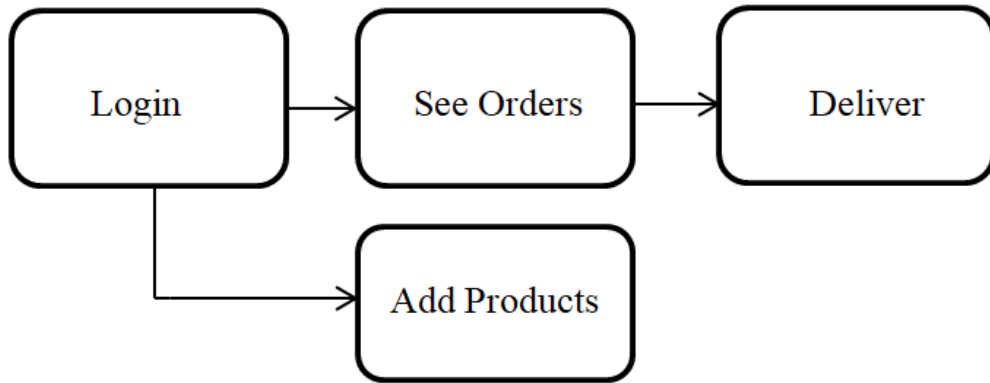
4.3 System Compatibility

- Windows devices.
- Desktop, Laptops, Pocket-PCs.

4.4 Workflow



ADMIN



Chapter 5

Conclusion and Recommendation

5.1 Conclusion:

Many countries are not developed yet and if you are looking to invest or start your e-Commerce business in those countries then you need to have mobile app to target those customers who cannot afford the desktops or laptops. Because they can easily afford the mobile to shop online.

If you are looking to setup your e-Commerce business in the developed countries then you also need to have a better mobile application with advance features and functionalities to compete with competitors or to create the competitive advantages.

E-commerce software is the motor in the background of an online store making it feasible to effortlessly oversee stock, add or remove items, compute charges, and everything else required to manage a site and satisfy orders. Q-sols offer robust e-Commerce solution in the market and will ensure that your e-Commerce site works smoothly and appeals to your customers as well.

Our next step will be the active server of this demo app.

5.2 Limitations:

An active payment method, backup payment method for subscriptions, edit or change method when purchase.

There can be various types like credit/debit cards, Google pay balance, mobile phone billing, Google play gift cards, PayPal, unsupported payment option

That payment system we have just mentioned, is not fixed properly. We have an option to purchase but not active. It's just a dummy of purchasing product. But it shows the process how to buy it online.

5.3 Future Works:

- Our project has just lacked the automacity of payment system. But it is an ongoing option that needs an active business system. If we can complete the

various method of payment, we will be in our final step to launch an active small business of ours with marketing logistics.

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- developer.android.com
- <https://firebase.google.com>
- <https://docs.microsoft.com/en-us/visualstudio/ide>
- <https://www.homeandlearn.co.uk/csharp>