

# **Ecommerce System (MIK Online Shop)**

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Bachelor of Science in Computer Science and Engineering



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## Declaration

We, Md. Akhlakur Rahman, Kowshiq Asfat and Md. Imdadul Haque Imran, declare that this project titled, MIK Online Shop and the work presented in it are our own. we confirm that:

- This work was done wholly or mainly while in candidature for a BSc degree at United International University.
- Where any part of this thesis has previously been submitted for a degree or any other qualification at United International University or any other institution, this has been clearly stated.
- Where I have consulted the published work of others, this is always clearly attributed.
- Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work.
- I have acknowledged all main sources of help.
- Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.

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## Certificate

I do hereby declare that the research works embodied in this project entitled “**MIK Online Shop**” is the outcome of an original work carried out by Md. Akhlakur Rahman, Kowshiq Asfat and Md. Imdadul Haque Imran under my supervision.

I further certify that the dissertation meets the requirements and the standard for the degree of BSc in Computer Science and Engineering.

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## **Abstract**

E-Commerce site that is the buzzword bound to bring curiosity from everyone concerned about buy or sell. A person sitting on his chair in front of a computer can access all the facilities of the Internet to buy or sell the products. Netizens are already aware of the many online shopping sites.

Unlike traditional commerce that is carried out physically with effort of a person to go & get products, ecommerce has made it easier for human to reduce physical work and to save time. E-Commerce which was started in early 1990's has taken a great leap in the world of computers, but the fact that has hindered the growth of e-commerce is security. Security is the challenge facing e-commerce today & there is still a lot of advancement made in the field of security.

The main advantage of e-commerce over traditional commerce is the user can browse online shops, compare prices and order merchandise sitting at home on their PC.

For increasing the use of e-commerce in developing countries the B2B e-commerce is implemented for improving access to global markets for firms in developing countries. For a developing country advancement in the field of e-commerce is essential. The research strategy shows the importance of the e-commerce in developing countries for business applications.

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# Chapter1

## Introduction

### 1.1 Problem Definition

Often, customers that buy online have never seen the product. They want to examine things from every angle on their screen.

Shopping online is risky for consumers. They don't want to be stuck with items that don't fit or are damaged on arrival. In our countries, the law gives consumers the right to return *anything* bought online within a set period. But if we're too strict, it could put people off ever buying from us in the first place.

It's rare that our site head directly to a product page, and check out there and then. Most will search, browse, filter, and explore different products. A slow site leads to a frustrating user experience, and people may back out and look for the same products somewhere else.

Google's Panda update in 2013 caused issues for many e-commerce stores. If we're still using those old descriptions, we're probably frustrating our customers, as well as limiting our organic traffic.

Hence, our website provides helpful information about the product specially for the product high regulation image, videos for the general people. This website is resolved to offer detailed product information like name, manufacture name, brand name and side effects of the product. This can help users better understand how mechanism work, their uses, side effects, price and potential to interact with other medicines.

## **1.2 Motivation**

1. Worldwide, ecommerce is expected to grow by as much as 13 to 25 percent.
2. The ability to earn as you sleep.
3. It's easy to get up and running.
4. Eighty percent of the web population has made a purchase online.
5. You can sell more to customers down the line.

## **1.3 Objective**

This System is built for people in e-commerce sector and related fields to understand and utilize which product is better than any other product. The main objective of this system is to bring current, accurate and helpful information about the product that available in Bangladesh market.

# CHAPTER 2

## Requirement Analysis

### 2.1 Background Studies

We conduct benchmark studies across a wide range of products, typically under the auspices of product information and Usability. Our benchmark products for this project are described below,

#### 2.1.1 Bagdoo.com

Bagdoo.com provides accurate and independent information on more than 24,000 products, over-the-country and natural products.

#### **Key Features:**

This site has many useful features and information. Some of the key features are as follows -

- o Product full Information
- o Over View
- oSide Effects
- oInteractions
- o Natural Product
- oRating
- o News
- o Search

#### **Limitations:**

Though this site has too many information about products, we find some flows and limitations those are as follows,

- o Do not have specific search options.
- o Products filter is not possible.
- o Can't generate report for specific products information.
- o Do not have professionals rating system for any products.

### 2.1.2 Rokomari.com

Rokomari.com is the leading online global destination for users and offering the latest product news and expert perspectives.

#### **Key Features:**

This site has many useful features and information. Some of the key features are as follows -

- o Product information
- o Over view
- o Side Effects
- o Interactions
- o Natural Product
- o Search

#### **Limitations:**

Though this site has too many information about products but we find some flows and limitations those are as follows,

- o Don't have face book login
- o Products filter is not possible.
- o Do not have professionals rating system for any products.

### **2.1.3Daraz.com.bd**

**Daraz.com.bd** is the most usable online shop in Bangladesh. It brings information about products.

#### **Key Features:**

This site has many useful features and information. Some of the key features are as follows -

- o Product Information
- o Brand Name
- o Properties
- o Form
- o Manufacturer
- o Price
- o Search

#### **Limitations:**

Though this site has information about products, we find some flows and limitations those are as follows,

- o Do not have specific search options for product class, Indications brand name of companies.
- oProducts filter is not possible with manufacture name.
- o Do not have any kinds of rating system.
- o Can't generate report.
- o Do not have any social media loin option.
- o Do not have video of a products.

#### 2.1.4 MIK OS (MIK Online Shop)

**MIK OS (MIK Online Shop)** is the Ecommerce system in Bangladesh. It is the most comprehensive, advanced and up-to-date information source on available and recent products that serve the User all over the Country.

##### **Key Features:**

This site has many useful features and information. Some of the key features are as follows -

- ☐ All product information
  - o Brand name
  - o Manufacturer Name
- O Add products
- O Interactions
- O Pack price
- ☐ Favorite products
- ☐ Products information
- ☐ Search
- ☐ Facebook login
- ☐ Google maps
- ☐ Videos

##### **Limitations:**

Though this site has too many information about products, we find some flows and limitations those are as follows,

- ☐ Rating was not real time.
- ☐ Do not have any kinds of rating.
- ☐ Can't generate report for specific products details information

## 2.2 Functional Requirements

We studied some benchmark products (Section: 2.1) and identify some very interesting and useful feature which can be very important for user. We also find some flaws and limitation which can be fixable. So finally, we met our project features which contains some important features from our benchmark studies and try to overcome the limitations of them. Our projects key features are described below,

### 2.2.1 Key Features

☐ Search

☐ Brand name

☐ Manufacture name

☐ Indication

☐ Products information

- User can find product for particular brand name for particular manufacture name with full information about this product form, manufacturer and price information.

☐ Manufacture by Class name

- All products and their classification can be found in here. Each product can be classified into one or more product classes.

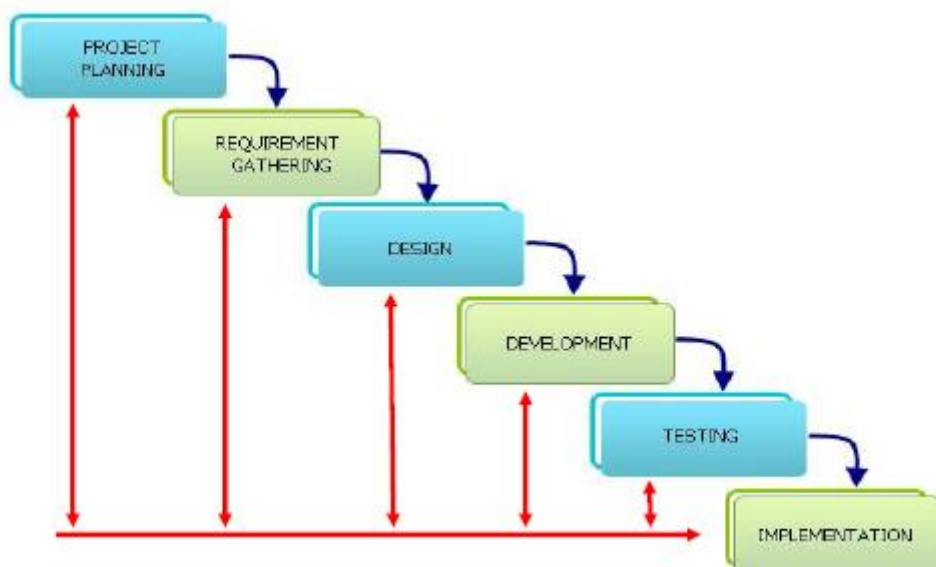
☐ Mail sent

- In general Admin can't memorize all product name for particular problem. Sometimes it can create problem for Admin. Using this service automatically sent a mail after buying a product.

- ☐product details information
- ☐Side effects
- ☐information form
- ☐Interaction
- ☐Precautions and warnings
- ☐Product image
- ☐ Price
- ☐Product rating
- ☐Professional rating
- ☐User rating
- ☐Manifold
- ☐ Manufacturecompany's information
- ☐brand Information

### 2.2.2 Development Model

Using waterfall Model with feedback so that every stage of the development process is up to date with minimum error. [Figure 2.1] In this figure we are showing our system development model which is waterfall model with feedback.



**Figure 2.1: Waterfall model with Feedback**

### **2.3 Non-Functional Requirements**

We identify some Non-Functional requirements that can help with wonderful user-experience. Our Non-Functional requirements are as follows -

- o Register
- o Login
- o Using local account
- o Using social site account
- o Search
- o Performance smooth and fast
- o Products video
- o Google map
- o Responsive website

## 2.4 Benchmark systems VS Our Proposed System

In this figure [Figure 2.2] we are comparing Our proposed system's main features with benchmark products,

| Category                    |  |  |  |  |  |  | Our Proposed System |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------|
| Registration/Login          | yes                                                                               | yes                                                                               | yes                                                                               | yes                                                                                | yes                                                                                 | yes                                                                                 | Yes                 |
| Supports Bangla and English | No                                                                                | No                                                                                | Yes                                                                               | No                                                                                 | yes                                                                                 | No                                                                                  | Yes                 |
| Customer Support            | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | No                                                                                  | yes                 |
| Search Bar                  | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | yes                 |
| Shopping Cart               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                 |
| Online Payment              | Yes                                                                               | No                                                                                | Yes                                                                               | No                                                                                 | No                                                                                  | No                                                                                  | Yes                 |
| Cash On delivery            | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                 |
| Review                      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | No                                                                                  | Yes                 |
| Short Audio Video           | No                                                                                | No                                                                                | No                                                                                | No                                                                                 | No                                                                                  | No                                                                                  | Yes                 |
| Product Comparison          | Yes                                                                               | Yes                                                                               | No                                                                                | Yes                                                                                | No                                                                                  | No                                                                                  | No                  |
| Award Service               | Yes                                                                               | Yes                                                                               | No                                                                                | Yes                                                                                | No                                                                                  | No                                                                                  | Yes                 |
| User Friendly               | Yes                                                                               | Yes                                                                               | No                                                                                | Yes                                                                                | No                                                                                  | No                                                                                  | Yes                 |

**Figure 2.2: Benchmark system vs Our proposed system**

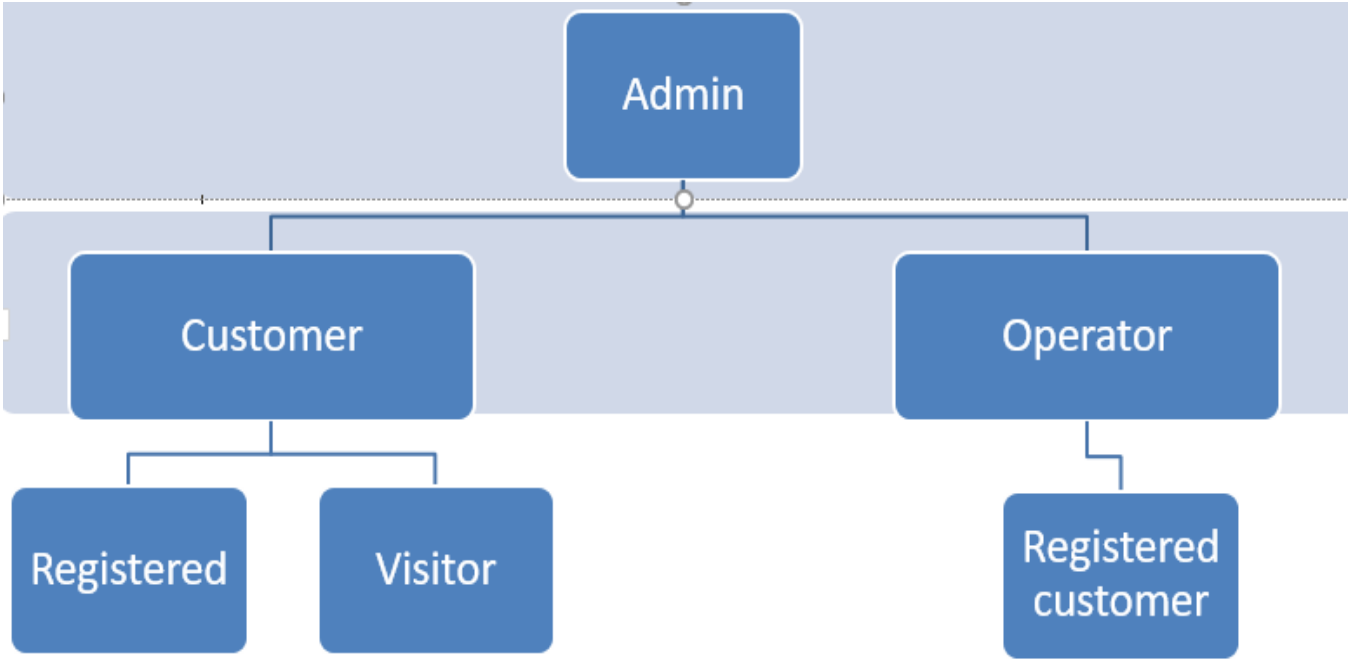
## **CHAPTER 3**

# **System Design, Development and Testing**

### **Stack Holders/Actors:**

- ❖ Admin
  - ❖ Can Manage others roles
  - ❖ Ensures High Quality Products
  - ❖ Ensures Instant Customer Service
  - ❖ Manages High Security Transactions
- ❖ Operators
  - ❖ Develop Website Design
  - ❖ Upload books
  - ❖ Handle user
  - ❖ Responds & Deletes Comment
  - ❖ Give permissions to advertisers to give ads
- ❖ Customers
  - ❖ Buy/Download books
  - ❖ Can Visit
- ❖ Visitors
  - ❖ Visit Only

**The Hierarchy List**



**Comparisons of Roles of different Stack Holders**

|                                    | Admins | Operators | Customers | Viewers |
|------------------------------------|--------|-----------|-----------|---------|
| Manage Admin Roles                 | Yes    |           |           |         |
| Edit the Page and Add Apps         | Yes    | Yes       |           |         |
| Respond & Delete comments          | Yes    | Yes       |           |         |
| Permits the Advertisers to add Ads | Yes    | Yes       |           |         |
| Handle Customers                   | Yes    | Yes       |           |         |
| Buy Books                          | Yes    | Yes       | Yes       |         |
| Visits                             | Yes    | Yes       | Yes       | Yes     |

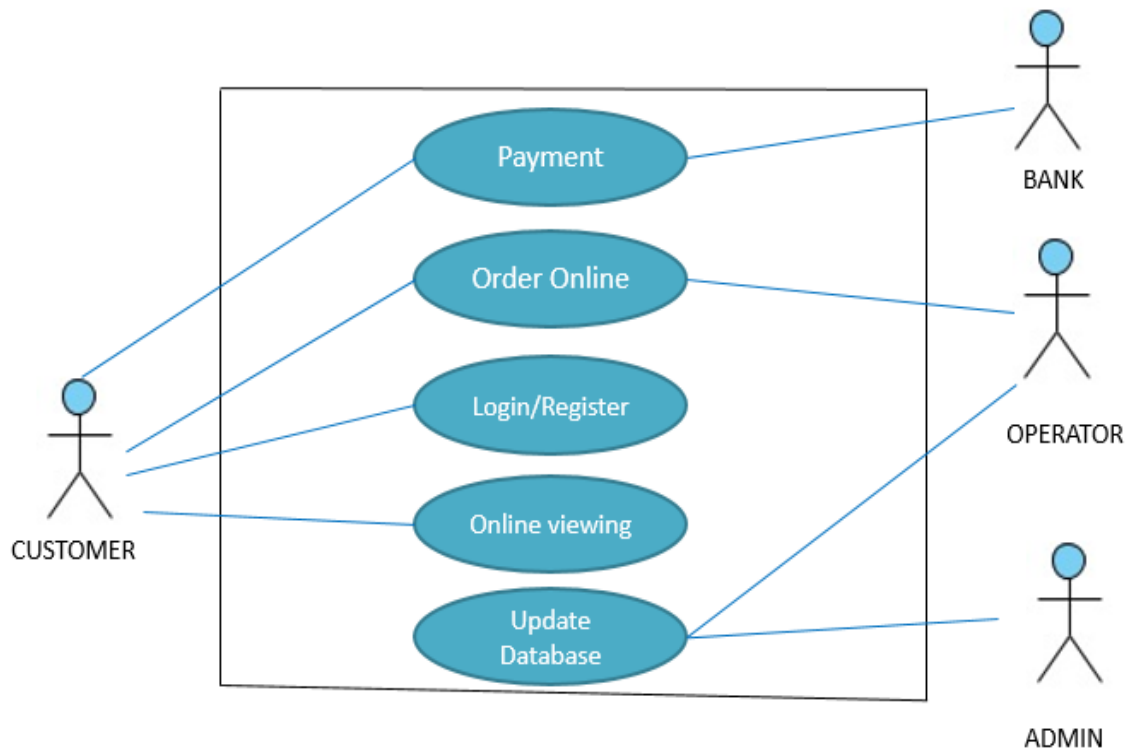
### 3.1 Use Case

A use case is a bridge between requirements and systems design and aids in the understanding of functional requirements. A use case utilizes a persona element, which can be created using the use case all modules. Here we are showing and describe our system use case module by module. All use case module are as follows,

#### Whole System in Use Case Diagram

##### 3.1.1 Website main Modules

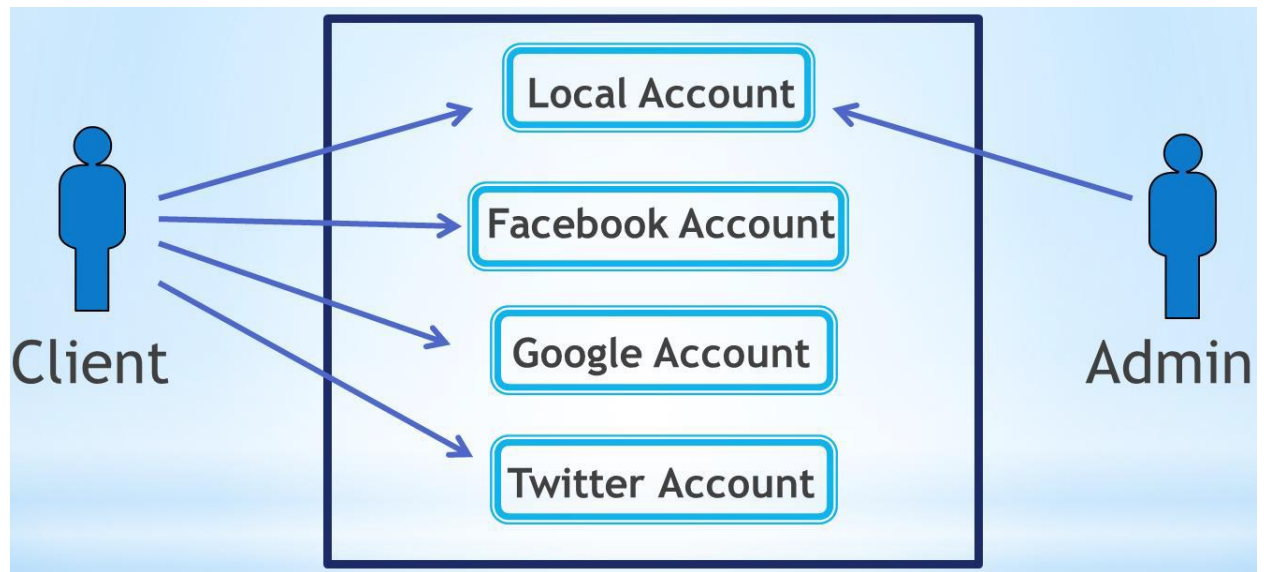
[Figure 3.1] In this use case we are showing our system main modules. This use case carries a brief idea about our system. Basically, in this system has five main modules. Those modules are Login or register module, Online Order module, Payment Module, Online viewing module and Update Database Module.



**Figure 3.1: Use Case of Main Modules**

### 3.1.2 Login Module

In this module we are focus in our login system and its different functionality. [Figure 3.2] In this use case we are showing our system login module. Login module have mainly four types of functionality, those are Local account, Facebook account, Google account and Twitter account.



**Figure 3.2: Use Case of Login Module**

#### Use Case 1: Online Order

- ❖ Primary Actor: CUSTOMER
- ❖ Stake Holder and Interest:
  - CUSTOMER (registered user): Want to Order products and needs confirmation message.
  - OPERATOR: Confirm the order and give confirmation message
- ❖ Pre-Condition: Customer logged in.
- ❖ Post-Condition: Verify the Order and Update the Database

❖ Success-Scenario:

1. Select desire products
2. Conform order
3. Payment the Order money by Card-Payment or Mobile-Payment or select Payment on delivery option
4. Cancel Order if want
5. System will handle it
6. Update database

❖ Alternative-Scenario:

If System crashes recover the system with prior state.

❖ Issues: Any how ordered book should arrive customer hand.

## Use Case 2: Online viewing

❖ Primary Actor: CUSTOMER

❖ Stake Holder and Interest:

CUSTOMER: Want to view available online pro

❖ Pre-Condition: Need to login the System

❖ Post-Condition: Update the Database

❖ Success-Scenario:

1. Select desire online product to read
2. View book
3. give feed-back
4. Update database

❖ Alternative-Scenario:

1. If View failed, give error message to user and system
2. If System crashes recover the system with prior state

### Use Case 3: Update Database

❖ Primary Actor: ADMIN

❖ Stake Holder and Interest:

OPERATOR: Want to upload products information and update database

ADMIN: Give permission and create role and maintain product bench-mark

❖ Pre-Condition: Need to login the System

❖ Post-Condition: Update the Database

❖ Success-Scenario:

1. Operator and Admin login the System.
2. Operator want to upload products information and edit, if any product information need to edit.
3. Admin give permission and maintain product bench-mark.
4. Update database.

❖ Alternative-Scenario:

If System crashes recover the system with prior state.

❖ Issues: maintain bench-mark.

### 3.2 Entity Relationship Diagram (ERD)

In this [Figure 3.7] figure we are showing our system entity relationship diagram. This diagram represents our system basic database entity and its relation between them. With this ERD anyone can easily understand how our system works in database label.

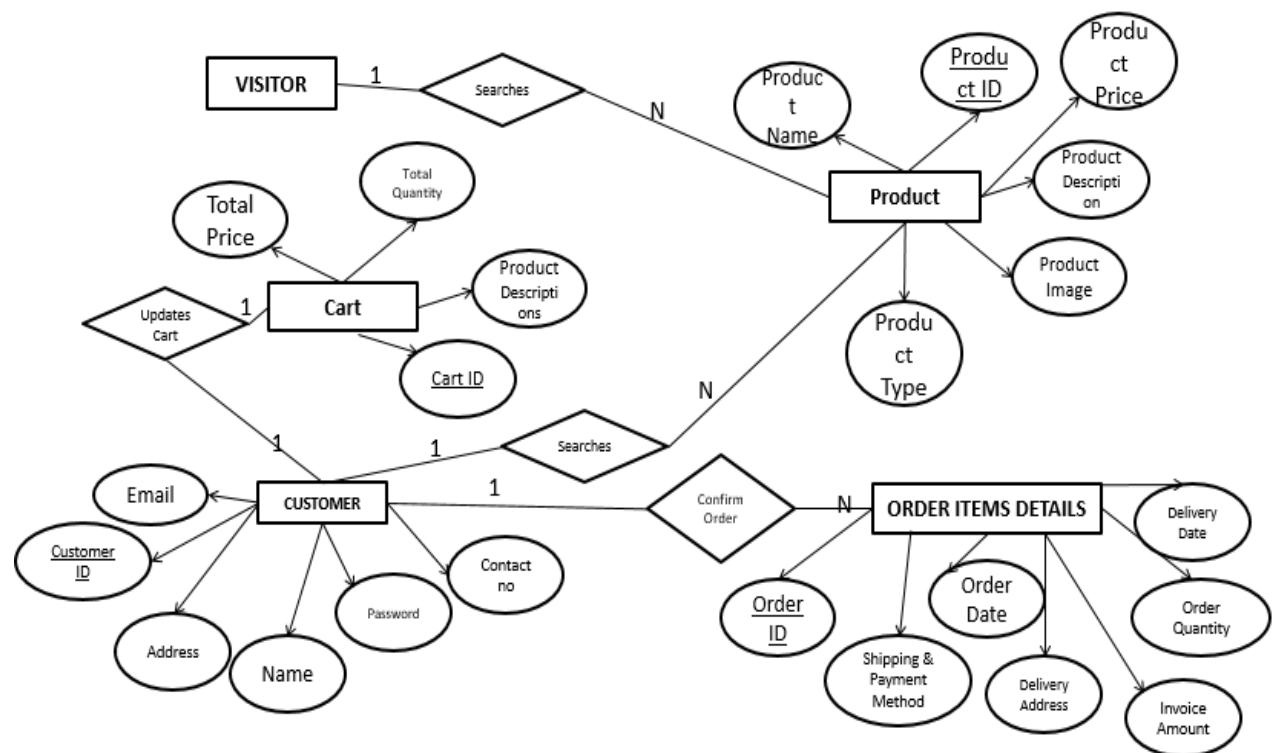


Figure 3.7: Entity Relationship Diagram (ERD)

### 3.3 Activity Diagram

In this figure [Figure 3.8] we are showing our system's activity diagram. This diagram represents all of the activity in our system which can be possible by users.

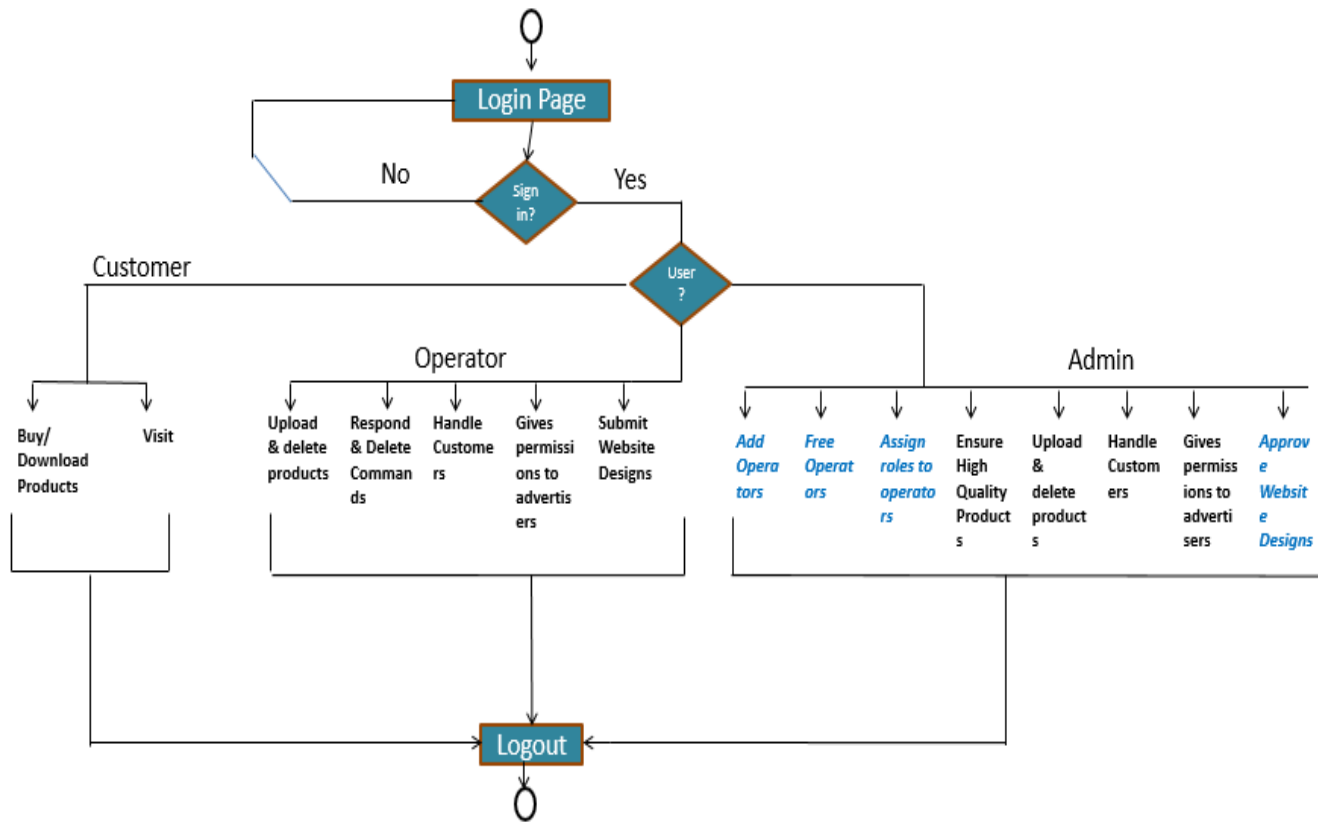


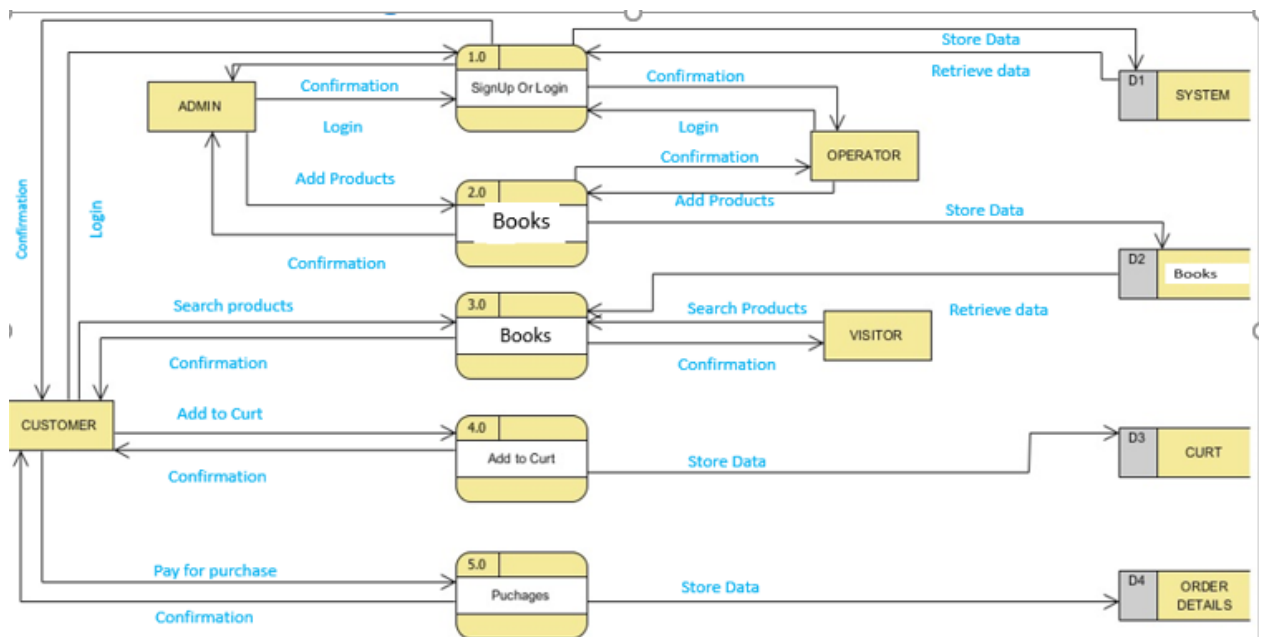
Figure 3.8: Activity Diagram

### 3.4 Data Flow Diagram

A Data Flow Diagram (DFD) maps out the flow of information for any process or system. In our system we are define our DFD into 3 level, so can every single process can understandable. Our data flow diagrams are as follows,

### 3.4.1 Level 0 Diagram

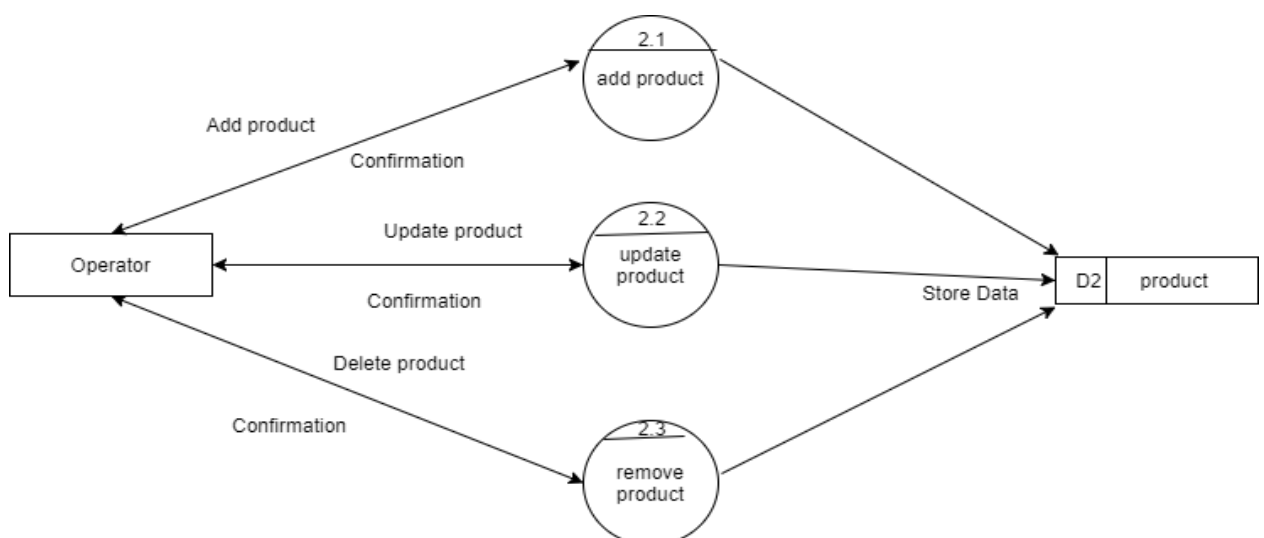
In this figure [Figure 3.5] we are described our level 0 diagram with all main processes.



### Figure 3.5: Level 0 DFD

### 3.4.2 Level 1 Diagram

In this figure [Figure 3.6] we are described our level 1 diagram have two main processes with a database entity.



**Figure 3.6: Level 1 DFD**

### 3.4.3 Level 1 Diagram for the process ADDING TO CART

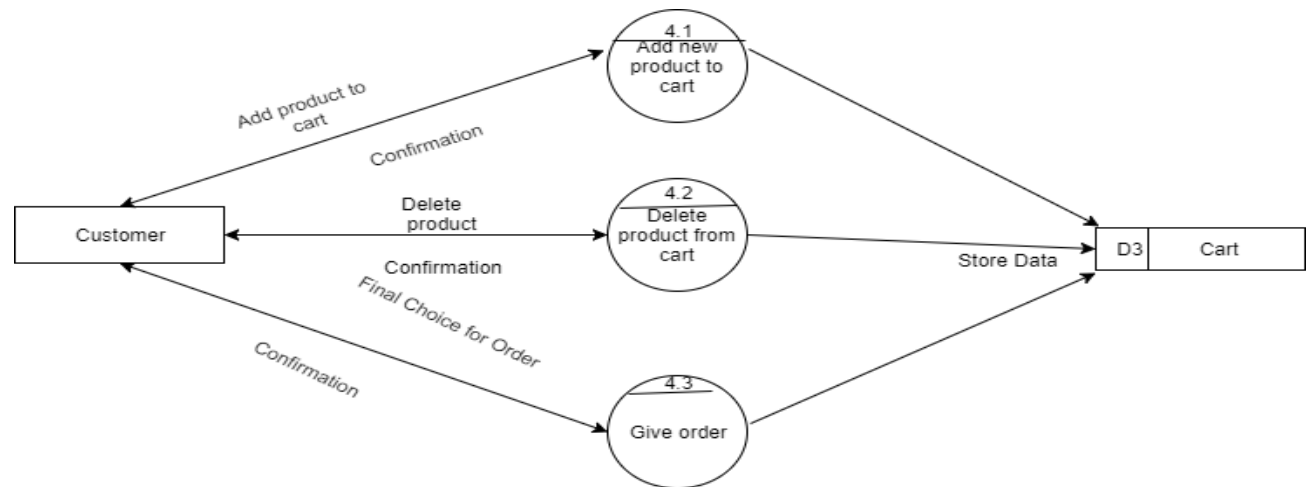


Figure 3.7: Level 1 DFD

### 3.4.4 Level 3 Diagram for the process Give Order

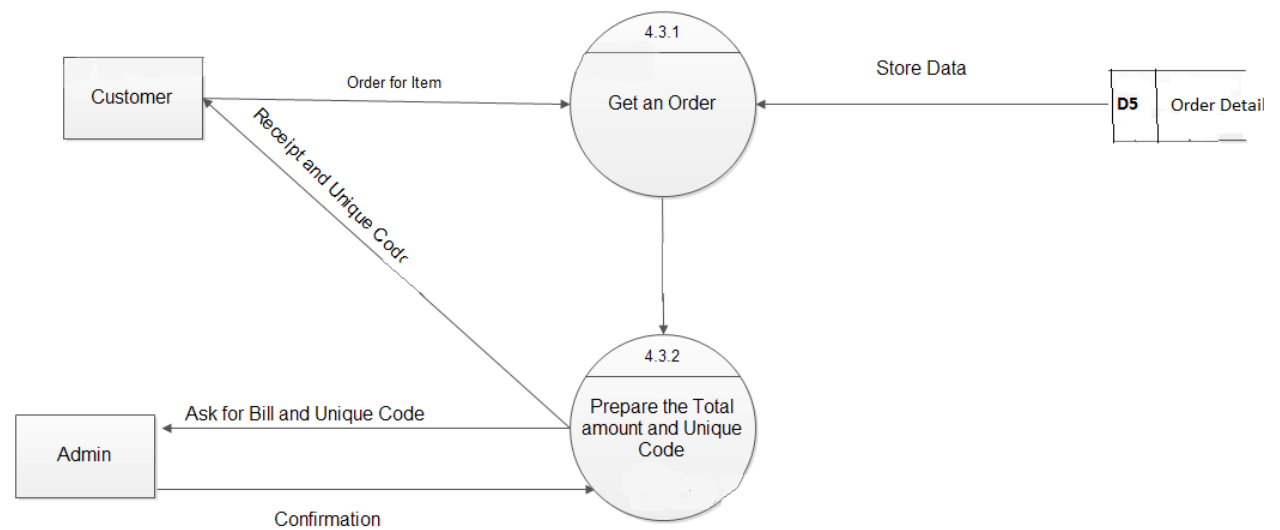
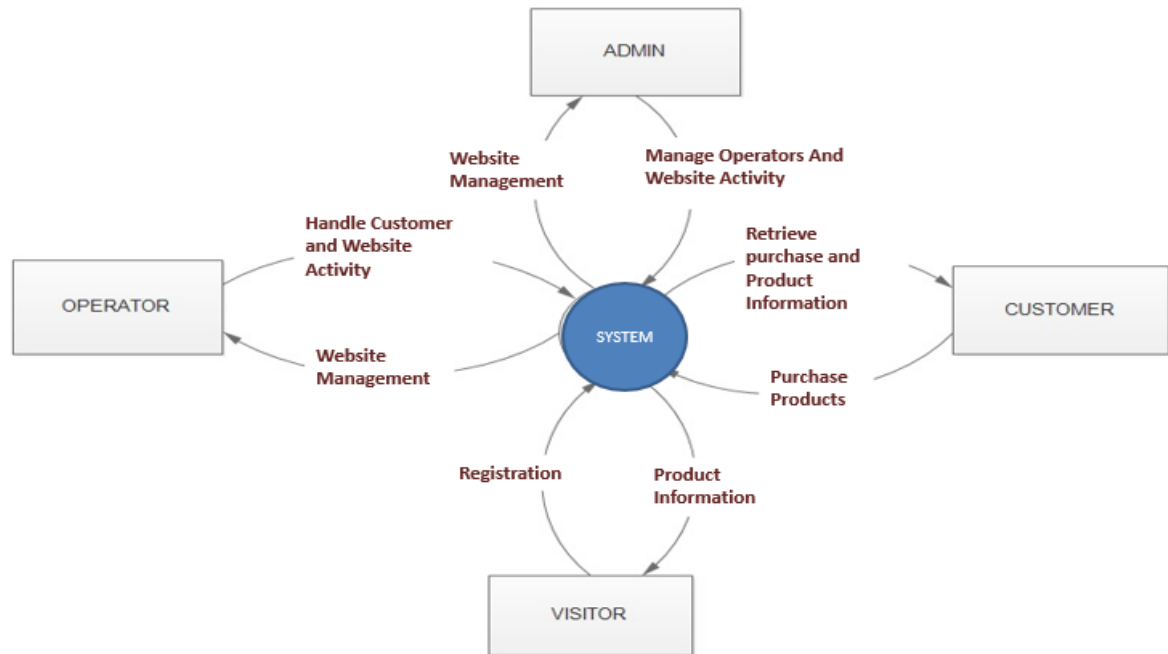


Figure 3.8: Level 2 DFD

### 3.4.5 Context Diagram



**Figure 3.9: Context Diagram**

### 3.4.6 Class Diagram

- ❖ The class diagram is the main building block of object-oriented modeling.
- ❖ It is used both for general conceptual modeling of the systematic of the application, and for detailed modeling translating the models into programming code.

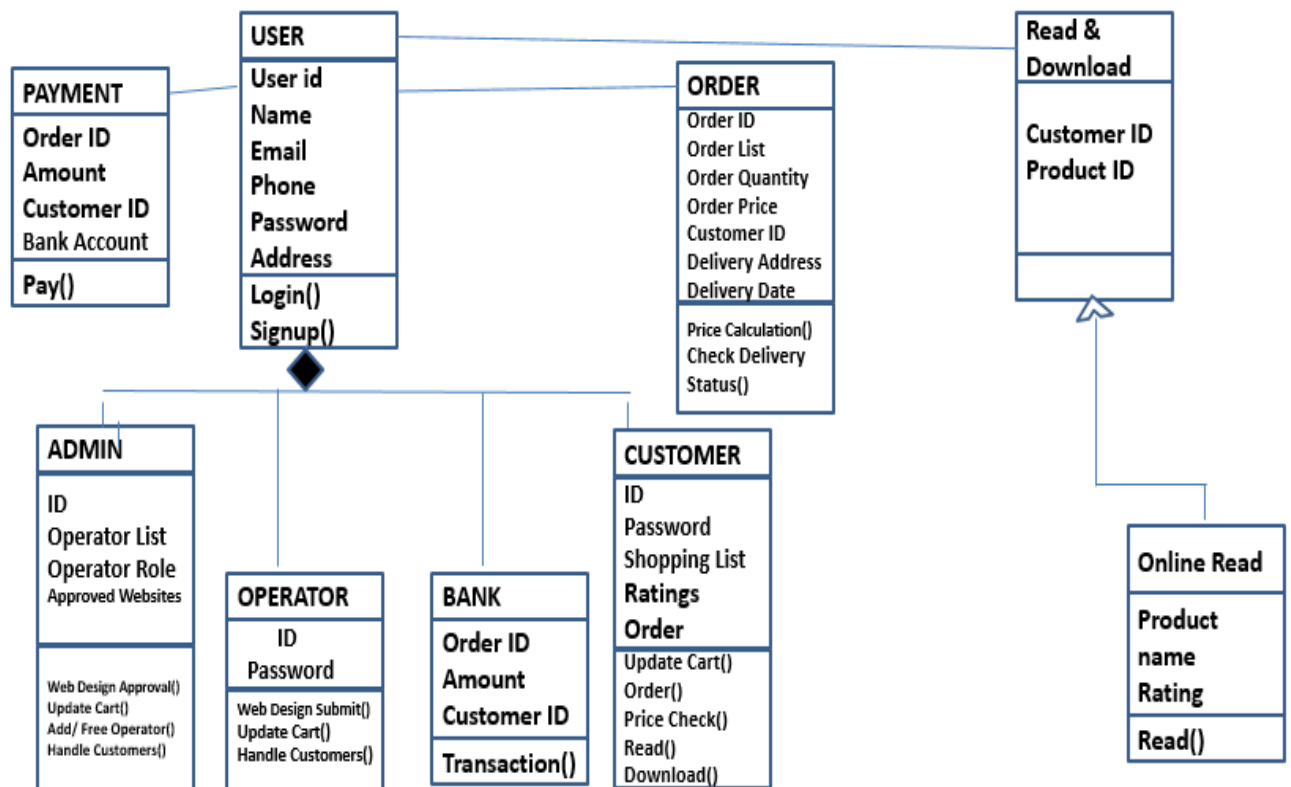


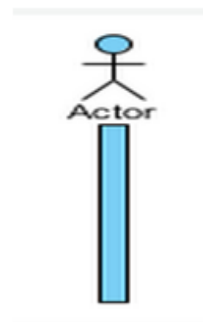
Figure 3.10: Class Diagram

### 3.4.7 Sequence Diagram

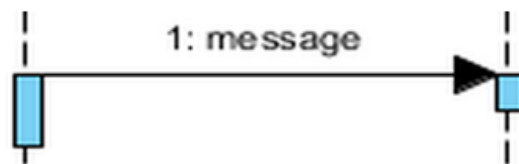
- UML sequence diagrams are used to show how objects interact in a given situation.
- An important characteristic of a sequence diagram is that time passes from top to bottom: the interaction starts near the top of the diagram and ends at the bottom

Symbols:

**Actor:**



**Call Message:**



**Return Message:**

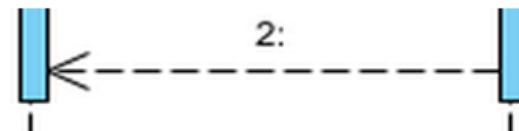


Figure 3.11: Sequence Diagram

Symbols:

Time Constraint:

Life Line :

Life Line  
<<boundary>>:

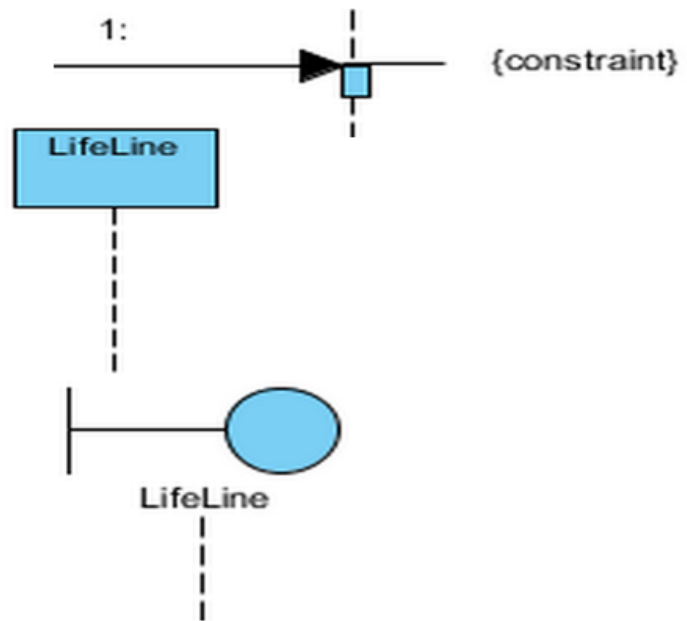


Figure 3.12: Sequence Diagram

Sequence diagram for Online Shop Service order

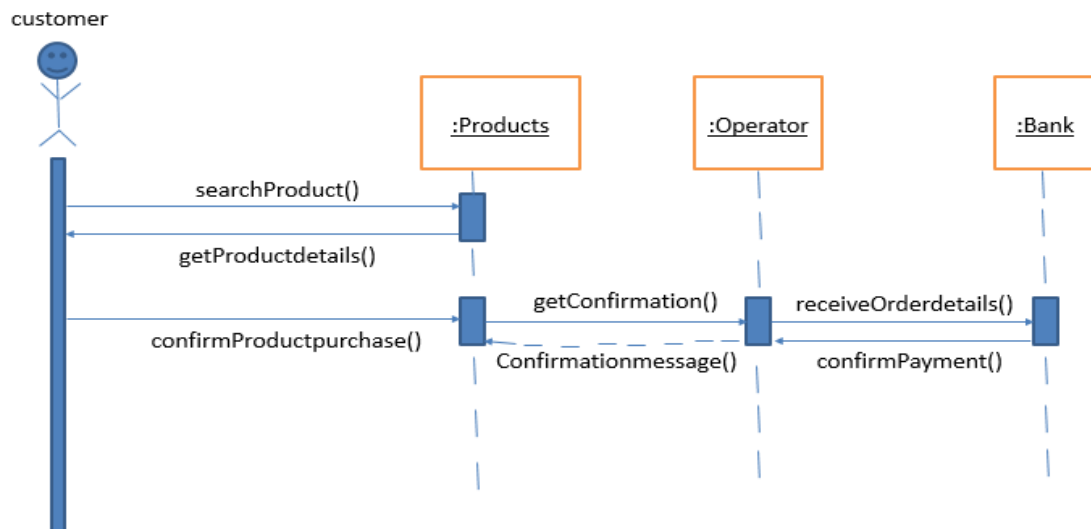


Figure 3.13: Sequence Diagram

### Sequence diagram for Online Shop Service update database

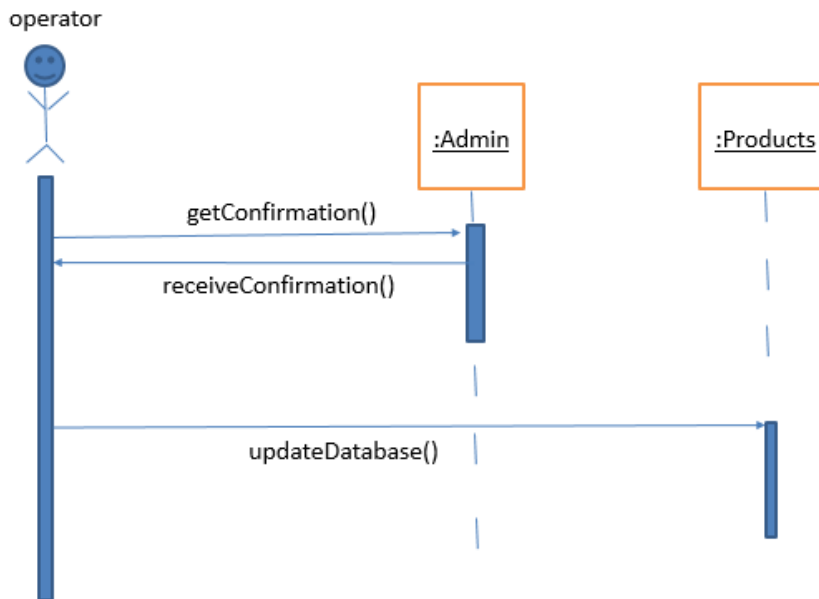


Figure 3.14: Sequence Diagram

### 3.4.8 State Diagram

In this figure [Figure 3.15] we are described State Diagram for Placing an Order

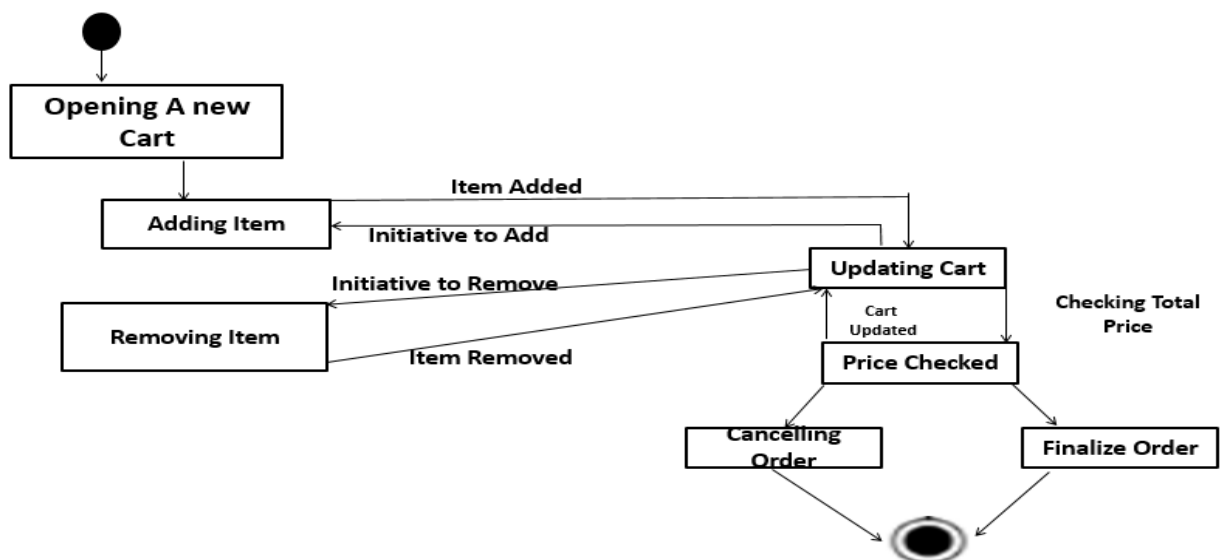


Figure 3.15: State Diagram

In this figure [Figure 3.16] we are described State Diagram for Delivering\Shipment

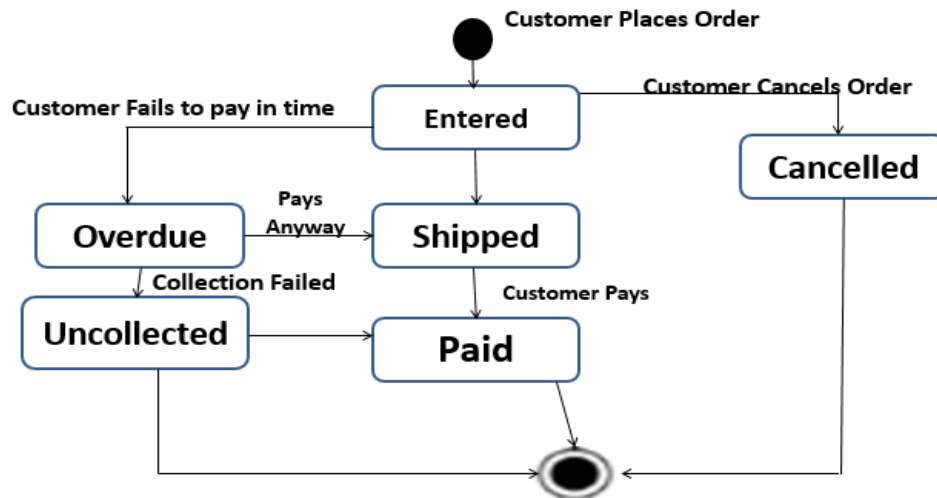


Figure 3.16: State Diagram Shipment

### 3.5 Implementation Environment

In our system environment we are selecting Laravel framework as a development platform. This framework helps the developers build applications that adhere to the MVC pattern. This framework has added functionality like Html Helpers, validators that work unobtrusively, attribute based model validation, pluggable components and dependency injection, which in turn improved testability and much more.

We are also use Entity Framework (EF) in our project. EF is an Object Relational Mapping (ORM) framework that enables developers to work with relational database. It enabling developers to deal with data as objects and properties. Using the EF, developers issue queries using LINQ, then retrieve and manipulate data as strongly typed objects using C#.

#### 3.5.1 Framework

- ☐ Laravel
- ☐ Entity Framework 6

### **3.5.2 Language**

- ☐ Php (Back end)
- ☐ HTML, CSS, Bootstrap (Front-End)
- ☐ Java Script, jQuery, AJAX

### **3.5.3 Database**

- ☐ MySQL
- ☐ We Followed Code First Approach to integrate database in our project.

### **3.5.4 Tools**

- ☐ NetBeans

### **3.5.5 Version Control System**

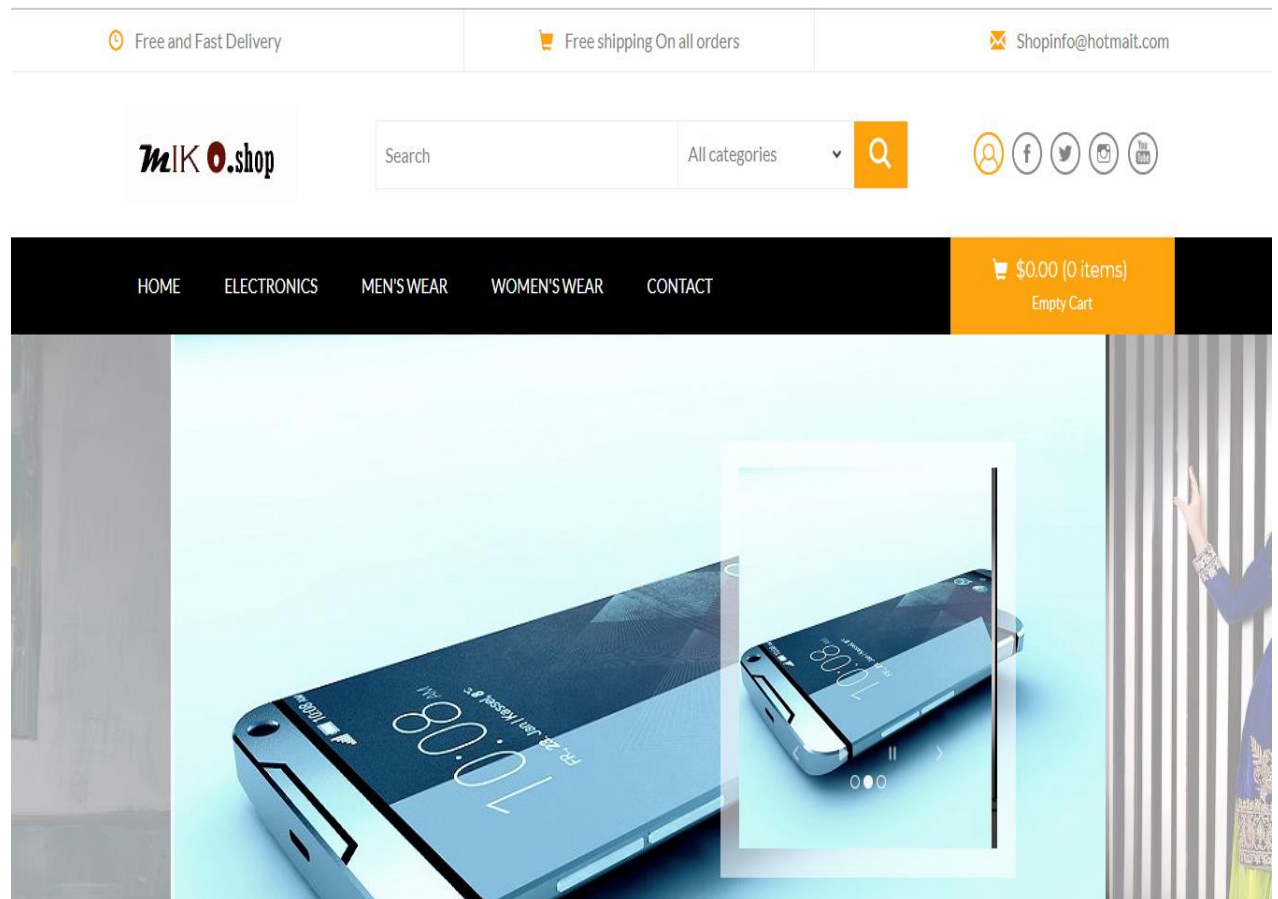
- ☐ GIT

### **3.5.6 Cloud Hosting**

- ☐ Mywindowshosting.com (Hosting)

### 3.6 System Module User Interfaces

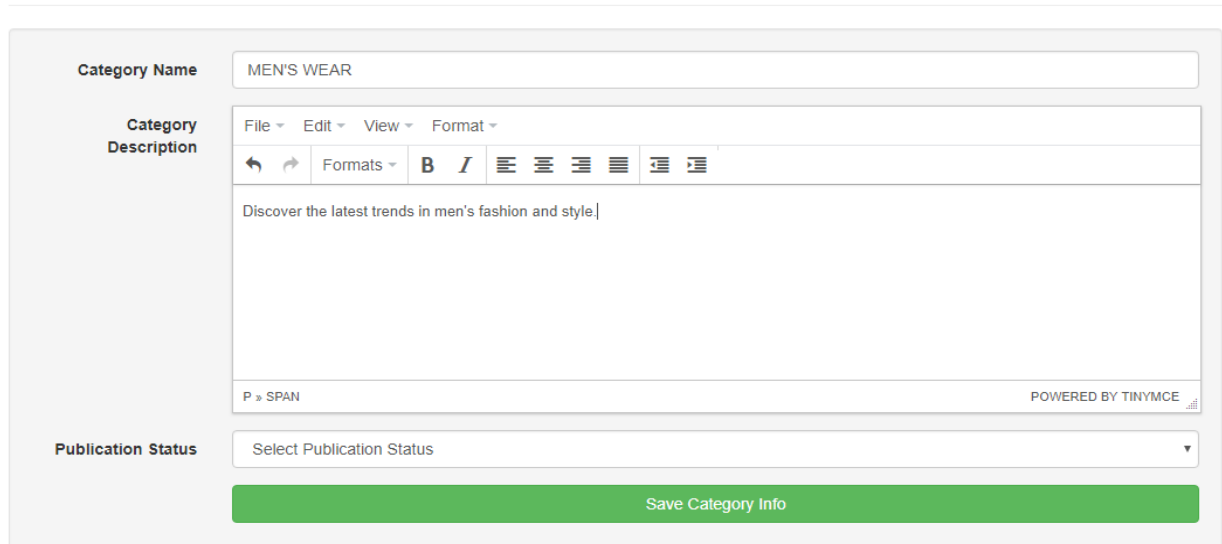
[Figure 3.17] This is our system's home page. Initially users can find lots of activity options with search options. User can also find popular products information in our site. User can easily interact with our system. This application's user interface is so simple but attractive and easier to understand.



**Figure 3.17: Home Page**

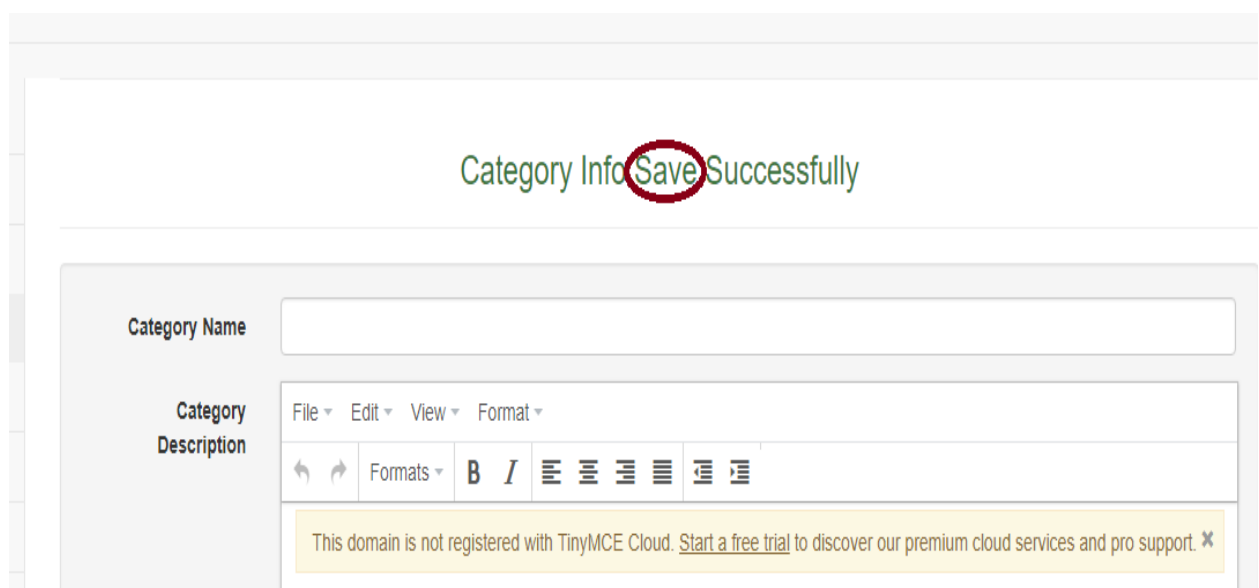
## Admin perspective:

[Figure 3.18, 3.19.20] This is our admins category page. Initially an admin can add the category with description, name and publication status. An admin can publish or unpublish the category for upcoming new category if he need to publish he can easily done that. Any of our admin can easily edit or delete the category if he wants.



The screenshot shows a form for adding or editing a category. It has three main sections: 'Category Name' with a text input containing 'MEN'S WEAR'; 'Category Description' with a TinyMCE editor containing the text 'Discover the latest trends in men's fashion and style.'; and 'Publication Status' with a dropdown menu set to 'Select Publication Status'. A green 'Save Category Info' button is at the bottom.

Figure 3.18: Category Page



The screenshot shows the same category page as Figure 3.18, but with a green message 'Category Info Save Successfully' at the top. The 'Category Name' input is empty. The 'Category Description' editor is empty and has a yellow banner at the bottom that reads: 'This domain is not registered with TinyMCE Cloud. [Start a free trial](#) to discover our premium cloud services and pro support. ✕'. The 'Save Category Info' button is still present.

Figure 3.19: Category Page

| ID | Category Name | Category Description                                                                                                                                  | Publication | Action                                         |
|----|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------|
| 1  | Electronics   | <p>hghghgh</p>                                                                                                                                        | Published   | <div> <div>Edit</div> <div>Delete</div> </div> |
| 2  | MEN'S WEAR    | <p><span style="color: #545454; font-family: arial, sans-serif, font-size: small;">Discover the latest trends in men's fashion and style.</span></p>  | Published   | <div> <div>Edit</div> <div>Delete</div> </div> |
| 3  | WOMEN'S WEAR  | <p><span style="color: #545454; font-family: arial, sans-serif, font-size: small;">Discover the latest trends in Women's fashion and style</span></p> | Published   | <div> <div>Edit</div> <div>Delete</div> </div> |

**Figure 3.20: Category edit/delete Page**

[Figure 3.21, 3.22] This is our admins manufacture and add products page. Secondly the admin can add the manufacture name, description and publication status. Finally, he can add the product with name, company name, manufacture name, product short description, long description, image, quantity and publication status.

Dashboard

Category Info

Manufacturer Info

Add Manufacturer

Manage Manufacturer

Product Info

Manage Order

Tables

Forms

UI Elements

Multi-Level Dropdown

Sample Pages

Manufacturer Name

Laksba Brand

Manufacturer Description

File Edit View Format

Formats

B I

Laksba Brand. Managing Director at Md Saidul Islam (Antu). Location: Bangladesh; Industry: International Trade and Development. Current. Laksba. Education: Laksba. 82 connections. ViewLaksba Brand's full profile. It's free! Your colleagues, classmates, and 500 million other professionals are on LinkedIn.

P > SPAN

POWERED BY TINYMCE

Publication Status

Published

Save Manufacturer Info

**Figure 3.21: Manufacture Page**

Smart Shop

Search...

Q

Dashboard

Category Info

Manufacturer Info

Product Info

Add Product

Manage Product

Manage Order

Tables

Forms

UI Elements

Multi-Level Dropdown

Sample Pages

Product Name

Lakoba Black Cotton Long Sleeve T-Shirt for Men

Category Name

MEN'S WEAR

Manufacturer Name

Lakoba Brand

Product Price

480.00

Product Quantity

13

Product Short Description

File • Edit • View • Format •

Formats •

B

I

U

L

Text

Link

Cotton T-Shirt for Men

H1

POWERED BY TRYMOL

Product Long Description

File • Edit • View • Format •

Formats •

B

I

U

L

Text

Link

Lakoba Black Cotton Long Sleeve T-Shirt for Men

By Lakoba

UV x A

POWERED BY TRYMOL

Product Image

Choose File

lakoba long t-shirt.jpg

Publication Status

Published

Save Product Info

**Figure 3.22: Add product page**

31

### User perspective:

[Figure 3.23] This is our system's User login page. Initially a user can login here if the user are not register then he/she need to register first.

---

---

You can signin here if you are not then please register

You may Login from here

---

Email Address

Password

You may Register from here

---

First Name

Last Name

Email Address

Password

**Figure 3.23: login Page**

[Figure 3.24,3.25] This is User login cart page. User can easily find a product and save it to his cat and want to see the information details in future or buy. Before check-in the user and can add more product or add product quantity easily or the user can check out.

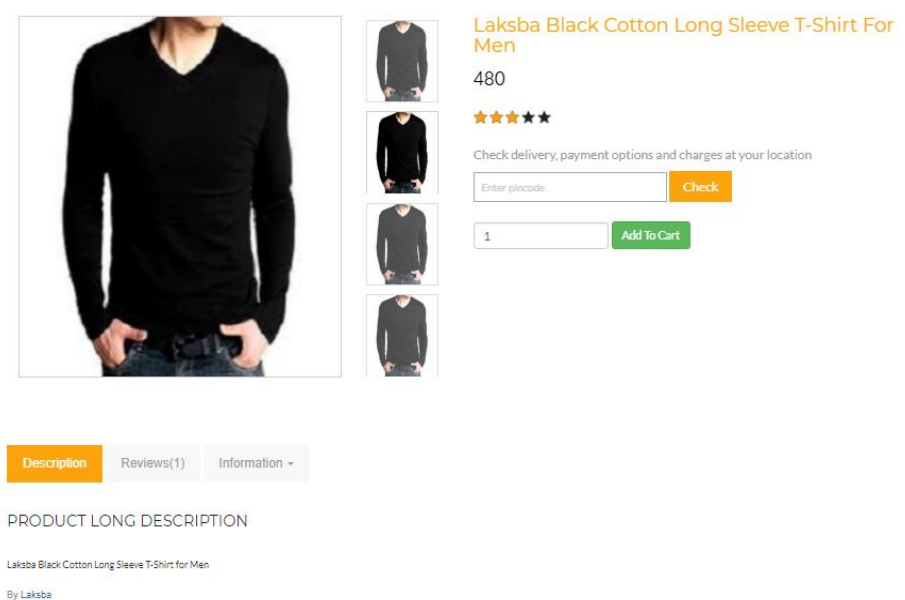


Figure 3.24: Cart Page

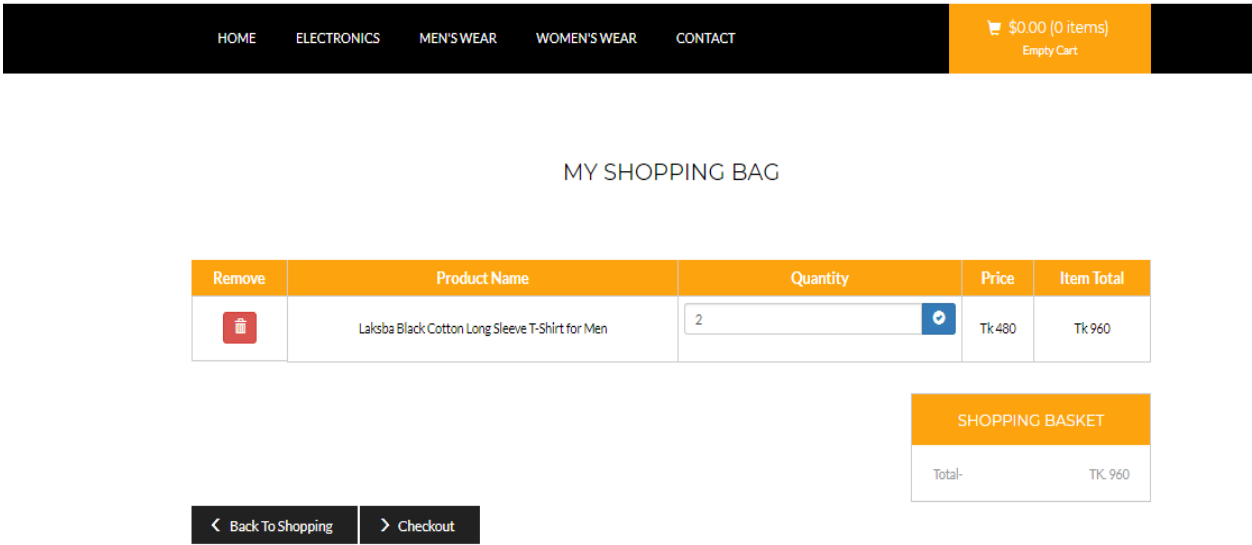


Figure 3.25: Cart Page

In [Figure 3.26,3.27] If the user is not register previously the user need to register first to buy the product. After successfully register the user can see a welcome message.

You have to login to complete your valuable oder. IF you are not registered than please register first.

You may Login from here

Email Address

Password

Login

You may Register from here

First Name

Last Name

Email Address

Password

Phone Number

Address

Registration

**Figure 3.26: Check out login**

Dear Akhlak Rahman, You have to give us product shipping information to complete your valuable order. If your billing & shipping information are same then just press on save shipping info button.

Shipping from here

Full Name

Email Address

Phone Number

Address

Save Shipping Info

**Figure 3.27: Check out shipping**

In [Figure 3.28,3.29] If the payment page. A user can pay the amount of money using cash on delivery, PayPal or Bikas. After purchasing a product, he will get notified mail.

The screenshot shows the payment page of the mIK O.shop website. At the top, there is a black navigation bar with white text links: HOME, ELECTRONICS, MEN'S WEAR, WOMEN'S WEAR, and CONTACT. To the right of these links is an orange cart icon with the text "\$0.00 (0 items)" and "Empty Cart" below it. Below the navigation bar is a light gray banner with the text: "Dear Akhlak Rahman, You have to give us product payment information to complete your valuable order." The main content area is a light gray box with the title "Payment from here" in green. Below the title, there are three radio button options: "Cash On Delivery", "Paypal", and "Bikash". Each option has a small gray circle to its right. At the bottom of this box is a blue button with the text "Confirm order".

**Figure 3.28: Payment page**

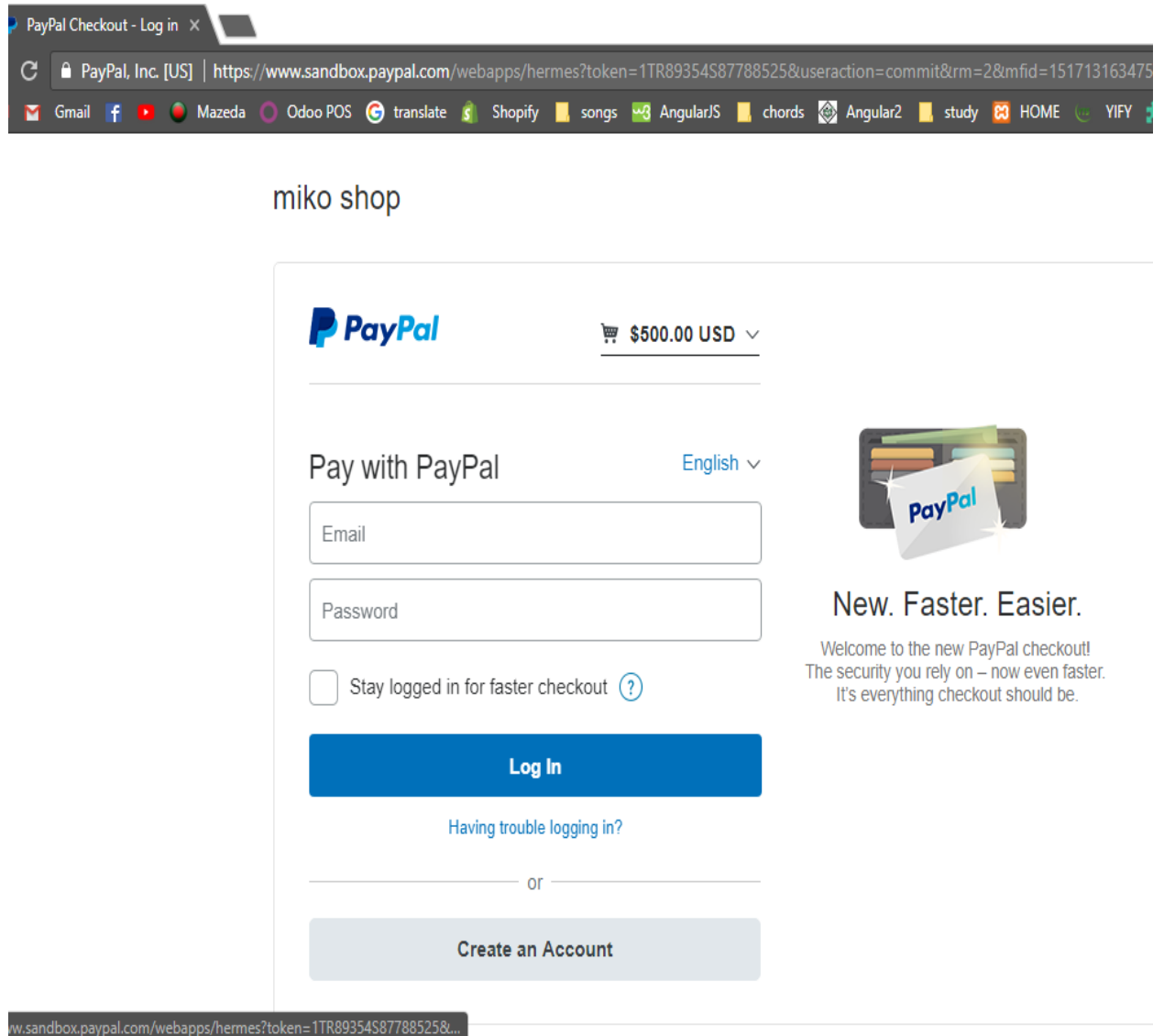
The screenshot shows the payment message on the mIK O.shop website. At the top, there is a white header with the mIK O.shop logo on the left. In the center is a search bar with the text "Search". To the right of the search bar is a dropdown menu with the text "All categories" and a downward arrow. Further right is an orange search button with a white magnifying glass icon. To the right of the search bar are five social media icons: a person icon, Facebook, Twitter, Instagram, and YouTube. Below the header is a black navigation bar with white text links: HOME, ELECTRONICS, MEN'S WEAR, WOMEN'S WEAR, and CONTACT. To the right of these links is an orange cart icon with the text "\$0.00 (0 items)" and "Empty Cart" below it. Below the navigation bar is a light gray banner with the text: "Dear Akhlak Rahman, Your Order Successfully Post. We Will Contact With You Soon...". At the bottom of the page is a dark gray footer with a blurred image.

**Figure 3.29: Payment message**

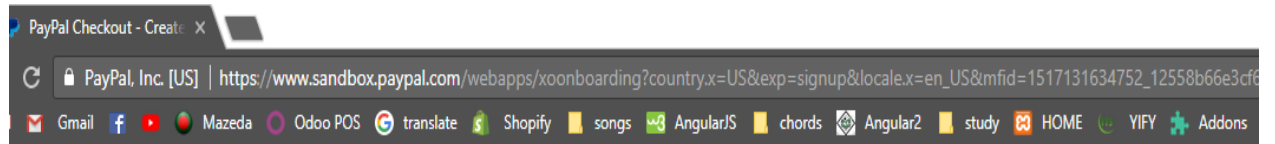
In[Figure 3.30, 3.31,3.32] it's our payment page actually. Anyone can pay the bill with the international credit card (PayPal). So if we click the PayPal check box and then confirm go to the PayPal login page and in there a user have to give the PayPal mail and password and if wand not login in PayPal the user will have to fill up the registration form PayPal then continue shopping.

The screenshot displays a web application's payment interface. At the top, a black navigation bar contains links for HOME, MEN'S WEAR, WOMEN'S WEAR, ELECTRONICS'S, KID'S WEAR, and CONTACT. To the right of these links is a yellow cart icon showing '\$0.00 (0 items)' and a link to 'Empty Cart'. Below the navigation bar, a light gray message box addresses the user: 'Dear Akhlak Rahman, You have to give us product payment information to complete your valuable order.' The main content area is titled 'Payment from here' and features three payment options: 'Cash On Delivery', 'Paypal', and 'BKash', each with an associated radio button. At the bottom of this section is a prominent blue button labeled 'Confirm order'.

**Figure 3.30: Payment message**



**Figure 3.31: PayPal login**



miko shop



 \$500.00 USD

### Pay with debit or credit card

We don't share your financial details with the merchant.

Country

United States



Card number

Expires

CSC

First name

Last name

Phone type

Mobile

Phone number

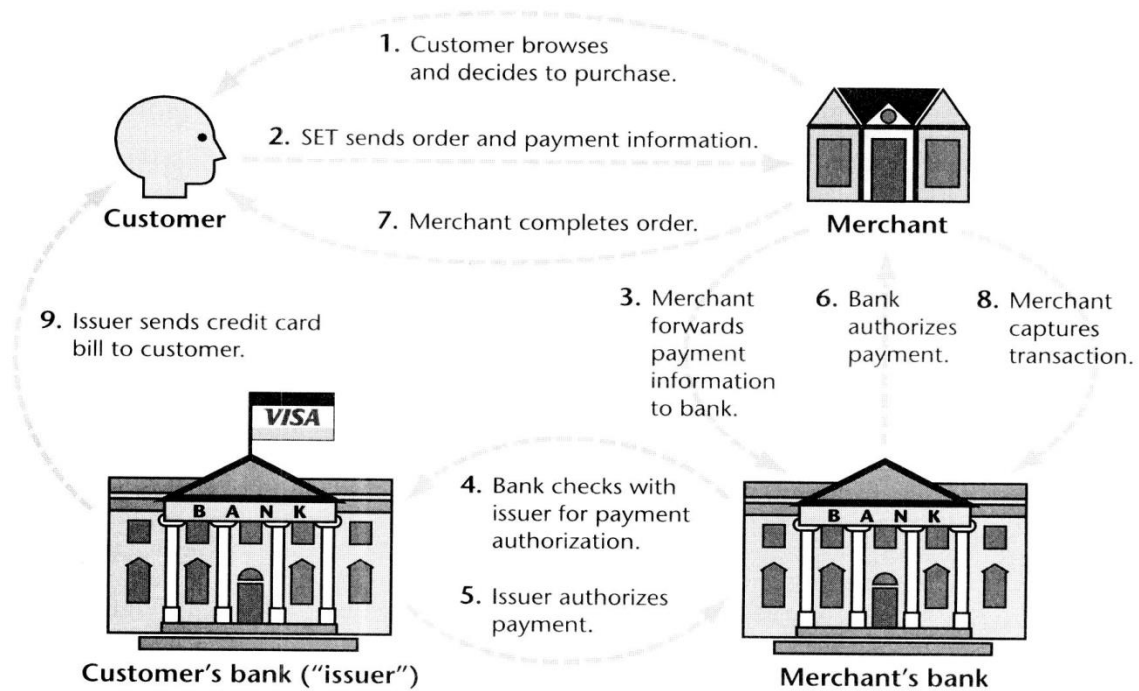
+1



**PayPal is the safer, easier way to pay**

No matter where you shop, we keep your financial information secure.

**Figure 3.32: PayPal form**



**Figure 3.33: PayPal Payment works**

Process of Payment method how it works:

1. Merchant sends invoice and unique transaction ID (XID)
2. Merchant sends merchant certificate and bank certificate (encrypted with CA's private key)
3. Customer decrypts certificates, obtains public keys
4. Customer generates order information (OI) and payment info (PI) encrypted with different session keys and dual-signed
5. Merchant sends payment request to bank encrypted with bank-merchant session key, PI, digest of OI and merchant's certificate
6. Bank verifies that the XID matches the one in the PI
7. Bank sends authorization request to issuing bank via card network
8. Bank sends approval to merchant
9. Merchant sends acknowledgement to customer

In[Figure 3.34] it's our contact page. Anyone can contact us with our given address and we use google map for the user thus the user can find our location easily. We give also two cell phone number that are open 24/7 and two mail address thus any of our valuable customer that can contact with use easily.

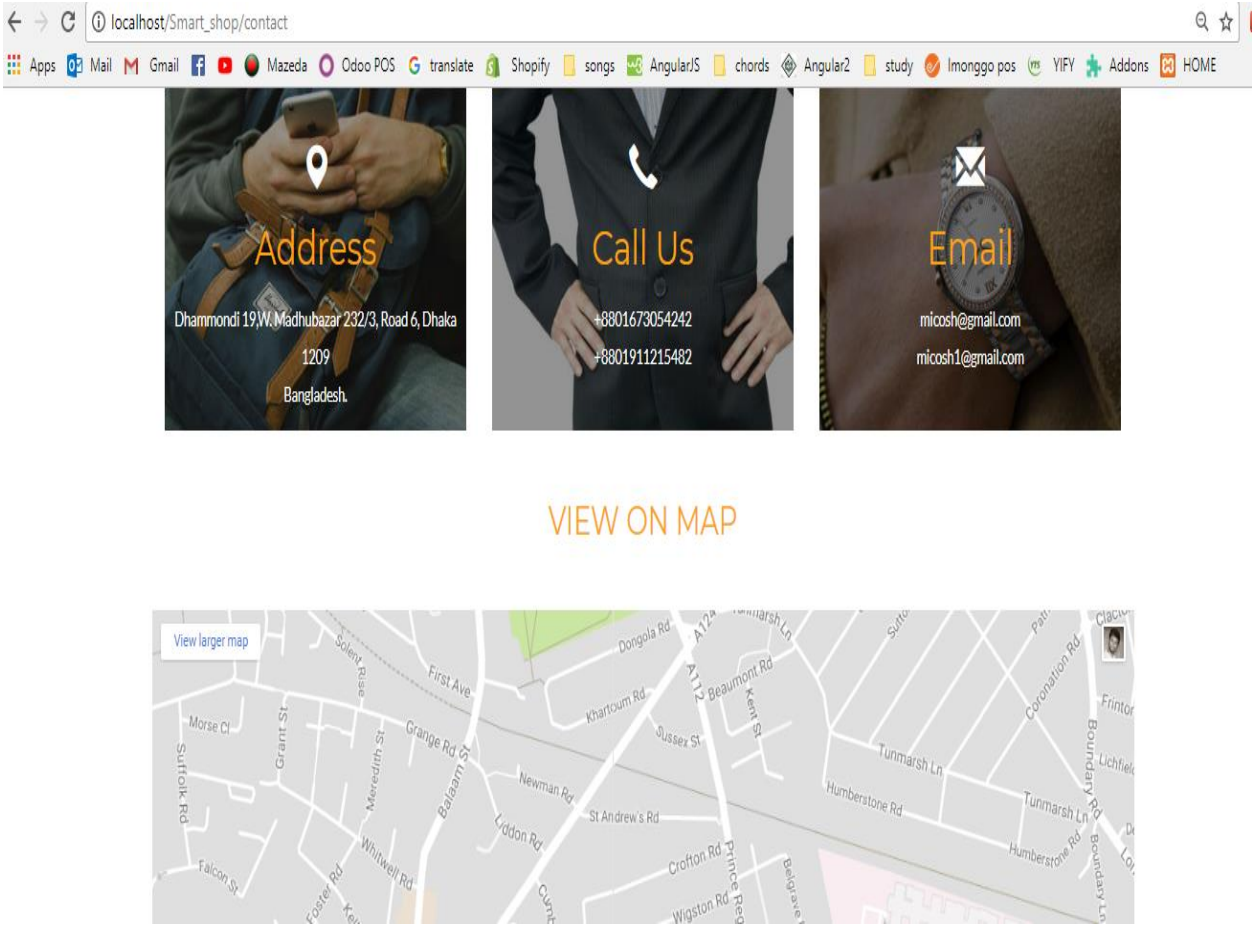


Figure 3.34: Contact page

### **3.7 Testing**

#### **3.7.1 Introduction**

Testing is one of the important phases for any system development, as it concerns about the performance of the system. Whenever any mistake crept in the system, the system should be capable enough to handle absurd data. Testing is the process of exercising a program with the specific intent of finding errors prior to delivery to the end user. It is the next important phase after completion of the design phase successfully. This phase enables the developer to be assured, at least up to some extent that the proposed solution is going to be a quality solution.

#### **3.7.2 Objectives of Testing**

The objective of testing is not to show absence of errors or defects, rather to show the presence of the errors. In our system product information mismatch can be very bad impact for all the users because of the information. In this system all module must work perfectly. However, some important objectives of testing are as follows,

- ☐ To uncover different cases of potential errors and bugs
- ☐ To find out whether the system's functionalities work according to the specification or not.
- ☐ To ensure that the produced system is complete and performs efficiently.
- ☐ To evaluate whether the software perform all activities specified without crashing individual modules after integration with the existing operating environment (hardware, software etc.)
- ☐ To measure up the reliability and overall quality of the software.

### 3.7.3 Test Level

Test level is defined in three levels, which are as follows,

- ☐ Unit Test
- ☐ Integration Test or System Test
- ☐ Acceptance Test

#### 3.7.3.1 Unit Test

Unit testing focuses first on the independent modules to locate errors [Figure 3.29]. This enabled to detect errors in coding and logic that were contained within that module alone. The unit testing was performed by bottom up testing. If any error is found, the module is revised and possible cause of error is defined and corrected. We performed unit testing while coding as well as after completion of coding of each module. We tried my best to find the following types of bugs.

- Data type mismatch means the required data type and input data type are not same
- Illegal operations
- Operations performing on database errors
- Tracking system generated errors for any illegal operations due to my application

Doing this project work, the mostly found error message was the following –

## **HTTP Error 404**

### **404 Not Found**

The Web server cannot find the file or script you asked for. Please check the URL to ensure that the path is correct.

Please contact the server's administrator if this problem persists.

**Figure 3.29: Error message for wrong query statement**

### 3.7.3.2 System Test

System testing does not test the software; however, it tests the integration of each module of the system. Our proposed system was also put through the system test to find any sort of discrepancy. But our primary concern was the compatibility of individual modules. To attain perfection some special level system tests were performed. After testing the results, it was found that our proposed system met all the specified requirements.

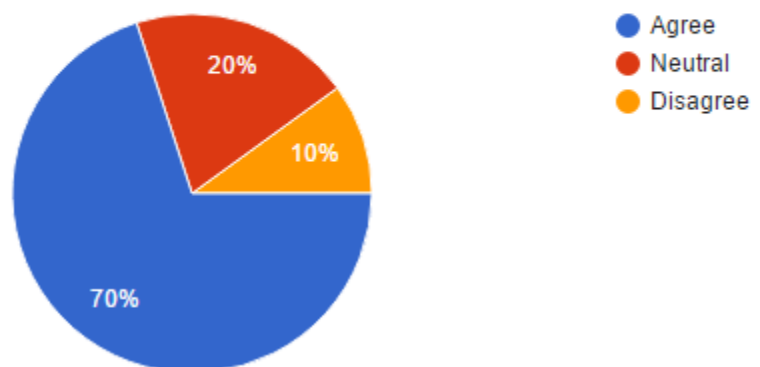
### 3.7.3.3 Acceptance Test

We are currently executing the acceptance testing of the proposed system. Both the computerized system and the organization's traditional manual system are running simultaneously to find out the lacking of the system. It has been planned that, this process will continue for the next few weeks (approximately 2 weeks).

### 3.7.4 Usability Testing

Usability testing is basically the testers tests the ease with which the user interfaces can be used. It tests the whether the application or the product built is user-friendly or not. In our usability test, we are asking some question to user about our system and users give some response in the basis of our question. [Figure 3.30 – Figure 3.38] Our usability test results are as follows,

UI is self descriptive (10 responses)



**Figure 3.30: Usability Test 1 Result**

### UI is Esthetically Acceptable (10 responses)

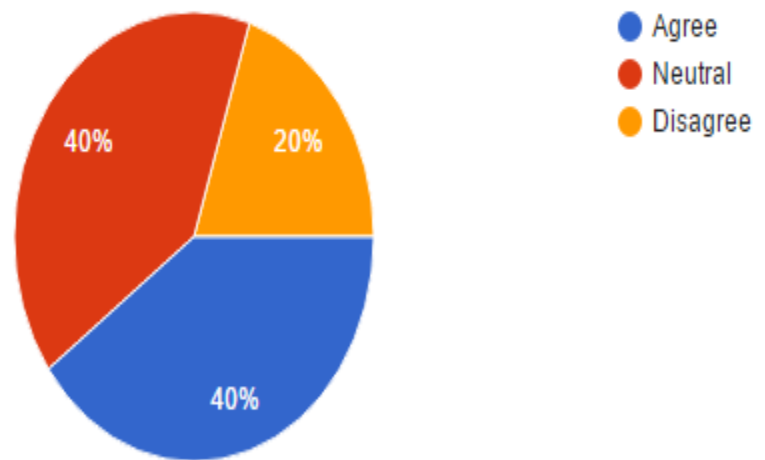


Figure 3.31: Usability Test 2 Result

### Search is efficient (10 responses)

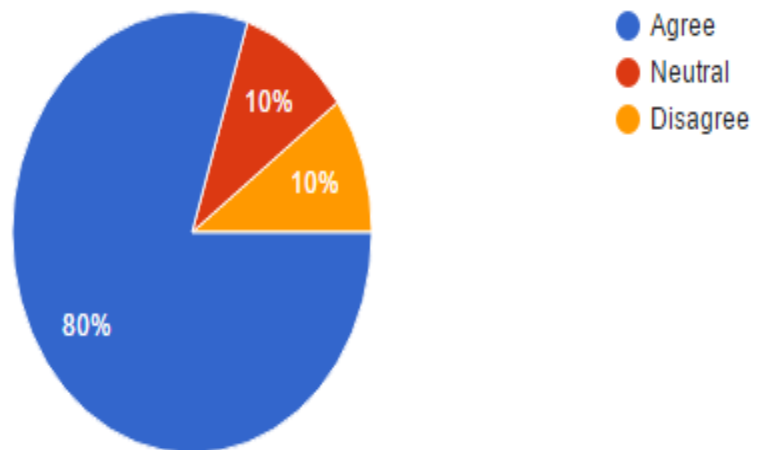
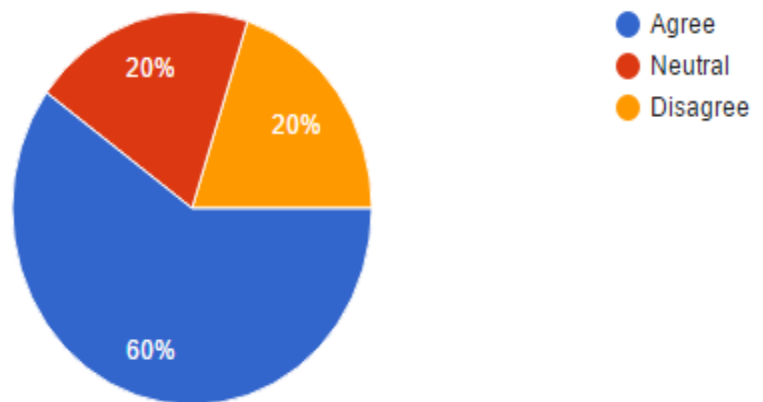


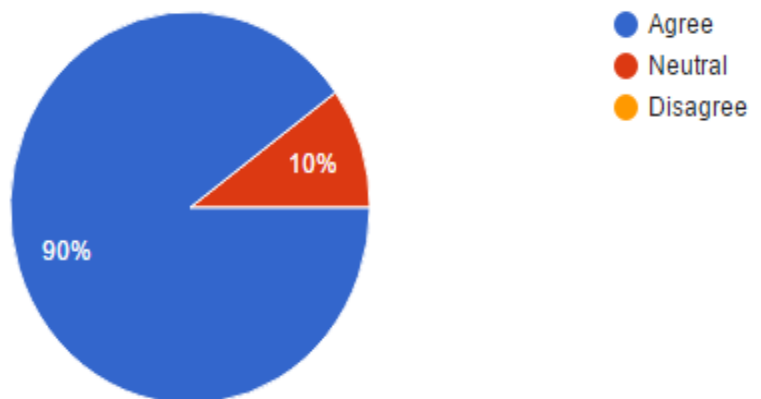
Figure 3.32: Usability Test 3 Result

Quick response (10 responses)



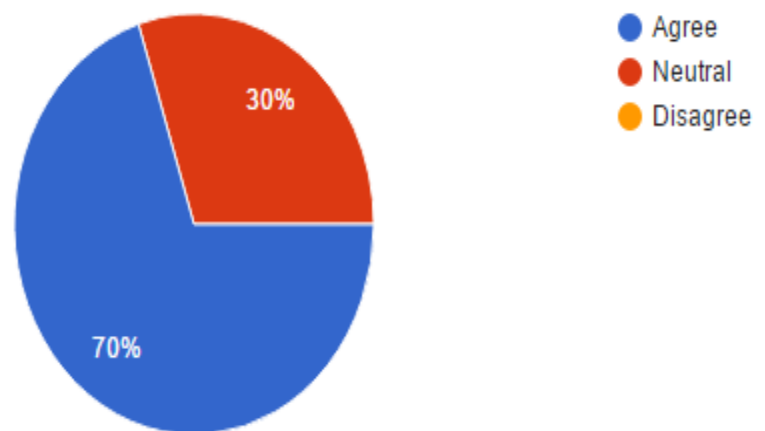
**Figure 3.33: Usability Test 4 Result**

System is easy to use (10 responses)



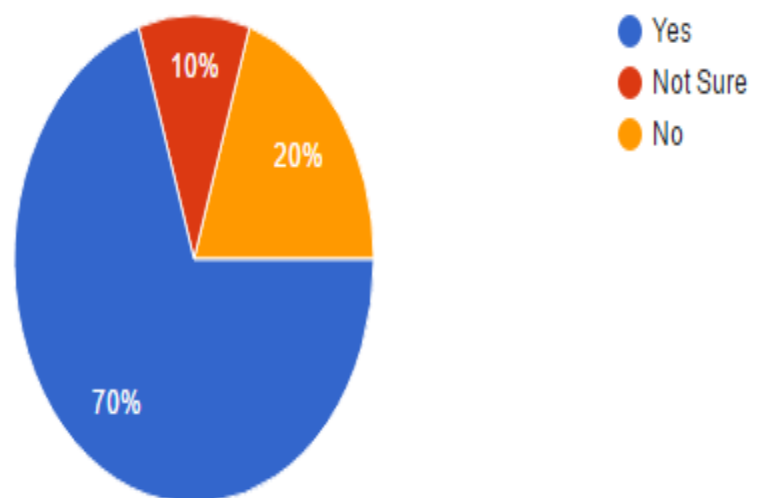
**Figure 3.34: Usability Test 5 Result**

I felt very confident using this system (10 responses)



**Figure 3.35: Usability Test 6 Result**

I will suggest other people to use this website (10 responses)



**Figure 3.36: Usability Test 7 Result**

# Conclusion

## 4.1 Summary

During our project design and development period, we have managed to propose and to develop a web application system. Our main goal was providing accurate products to all users. In our proposed system, there exist mainly two types of users, namely general users or users and Admin. In our system, admin plays the key rule because all that information provided by our system, only doctor can understand clearly and values this information for further uses.

Now we can say that our goal is successfully complete with this project. During our project period, we have learned a lot of new things, learned to work with real life project. Hope this experience will help us for our future career to be better software engineer. We believe that our involvement here as Web Application Developer will not only enrich our career but also will increase our ability to make progressive change everywhere and make a valuable influence in software development.

## 4.2 Future Work

Due to the time constrains, we were not able to meet the whole development process for this project. Some of our future steps on this project are as follows

- ☐ Create a mobile application with all of our system features.
- ☐ Officially launch our application for all users.
- ☐ Doing sub-category of our main category.
- ☐ Provide Natural Products Information.
- ☐ Identify International Products and provide their Information.
- ☐ Introduce bar code checker.
- ☐ Product rating
- ☐ Collaborating with eCommerce owners and working on customer uses data that can be collected from server.
- ☐ We suggest our customer to fill a survey after buying product.

Moreover, as few system flaws and lacking can be found, we will improve that. Furthermore, new requirements and challenges might be identified after implementation. In such case, the system is brought back to the drawing boards and the necessary improvements and modifications are required to be made. Since, we are tried our best to make an efficient system by following structured coding and relational database designs. We are expecting that any new requirements can be met without much trouble.

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