

# **E-COMMERCE WEBSITE FOR COMPUTER SHOP**



**BY**

**MUZAMIL KHAN  
MUHAMMAD FAWAD ISLAM  
MUHAMMAD MUHSIN**

**DEPARTMENT OF COMPUTER SCIENCE  
GULABAD DEGREE COLLEGE  
SESSION 2018-2022**

**BS THESIS**  
**E-COMMERCE WEBSITE FOR COMPUTER SHOP**



**SUBMITTED BY**

**MUZAMIL KHAN**  
**MUHAMMAD FAWAD ISLAM**  
**MUHAMMAD MUHSIN**

**SUPERVISOR**

**MR. SHAWAL KHAN**  
Department of Computer Science  
GULABAD DEGREE COLLEGE

**DEPARTMENT OF COMPUTER SCIENCE**  
**GULABAD DEGREE COLLEGE**

**SESSION 2018-2022**

**BS THESIS**  
**E-COMMERCE WEBSITE FOR COMPUTER SHOP**



**BY**  
**MUZAMIL KHAN**  
**MUHAMMAD FAWAD ISLAM**  
**MUHAMMAD MUHSIN**

A Thesis submitted to the Gulabad Degree College in Partial fulfilment of the requirements for  
the bachelor's degree in Computer Science.

**DEPARTMENT OF COMPUTER SCIENCE**  
**GULABAD DEGREE COLLEGE**  
**SESSION 2018-2022**

## **CERTIFICATE**

It is certified that the work in this thesis has been carried out & completed by Mr. Muzamil Khan, Mr. Muhammad Fawad Khan and Mr. Muhammad Mohsin (Bachelor's student, Session 2018-2022) under my supervision and is acceptable in its present form by the Department of Computer Science, Gulabad Degree College, Gulabad Khyber Pakhtunkhwa, Pakistan and satisfying the dissertation requirements for the bachelor's degree in Computer Science.

**MR. Shawal Khan**  
Department of Computer Science  
Gulabad Degree College

**DEPARTMENT OF COMPUTER SCIENCE**  
**GULABAD DEGREE COLLEGE**  
**SESSION 2018-2022**

## **E-COMMERCE WEBSITE FOR COMPUTER SHOP**

This is to certify that this thesis is approved and recommended for partial fulfilment for bachelor's degree in Computer Science from the University of Malakand.

**External Examiner:** \_\_\_\_\_

Signature: \_\_\_\_\_

Remarks: \_\_\_\_\_

\_\_\_\_\_

**Supervisor: MR. SHAWAL KHAN**  
Department of Computer Science  
Gulabad Degree College, Gulabad KPK Pakistan

Signature: \_\_\_\_\_

Remarks: \_\_\_\_\_

**Chairperson: MR. MASAUD SALAM**  
Department of Computer Science,  
Gulabad Degree College, Gulabad KPK Pakistan

Signature: \_\_\_\_\_

Remarks: \_\_\_\_\_

# **DEDICATION**

**Dedicated to My Parents, Family and Teachers**

# **ACKNOWLEDGEMENTS**

First and foremost, I am thankful to Almighty ALLAH for successful completion of my bachelor's dissertation, Whose Grace and Mercy blessed me with good health and enthusiasm. It was sheer boon of Allah that I got loving, inspiring and talented teachers who provided me the intellectual guidance, moral support and all-round help for the fulfillment of my research assignment. All praises for the Holy Prophet Muhammad (S.A.W) who is forever a torch of guidance and knowledge for humanity as a whole.

I would like to express my special gratitude, appreciation and thanks to my supervisor Mr. Shawal Khan, from Department of Computer Science, Gulabad Degree College. I would like to extend my best wishes to all my Teachers for their support and kind suggestions.

I am extremely obliged to my parents, brothers and sister for their special interest and encouragement during my research work and who gave me the moral and financial support throughout the course of my study and who prayed very much for my success.

**MUZAMMIL KHAN**

**MUHAMMAD FAWAD ISLAM**

**MUHAMMAD MOHSIN**

# ABSTRACT

In technical word websites are web application that is accessible by user through internet or intranet. Websites are very approachable (door always open) to use. Websites usually make use of combination of server-side script like asp, PHP and client side scripts like html, CSS, JavaScript and structure query language like jQuery for the development of websites.

E-commerce is also a web application. Both small and big business today using e-commerce website to gain larger profits. People are skipping going out and shopping product because they can do it from their home. The e-commerce website offers 24/7 shopping capability, which is quite profitable for the business owners. You cannot be sure that all of your customers will purchase your product at daytime. Most internet user can get free time in the night while they search the things of their use. If you are not doing business through an e-commerce site, your clients can face difficulties in shopping at the night. Thus, your customers will act towards other service providers, and you will avoid loss. So, it is better to use an e-commerce website and provide 24/7 shopping facility to your clients.

For this reason, Computer Science Department appoint me a project to develop a web-based system that existent a shop on the web. The website is created with some static and dynamic aspect. The aspect that does not need regularly modify. We made them static, and some aspects are dynamic because they need regular modifications. Requirements have been gained in an efficient way. The architecture and design of this site is so simple, because of simplicity anybody can use it easily.

The purpose of e-commerce web application is to apply modern sale method where a business store can sell their products both psychically and digitally. If you have a managerial store in your local area market, you can sell your product to your local clients who comes to your store physically. But how can you sell your products to your clients for whom it's hard to reach physically. Or to those who don't have enough time to visit your shop. Here e-commerce website is useful to reach out to all your clients online. We can sell product to the far-off clients by offering our website to them. This is project is for delivery purpose. To send products to those who can't reach out to your store. The product will be delivered in 3 to 7 days in Pakistan.



## Table of Contents

<b>DEDICATION .....</b>	<b>i</b>
<b>ACKNOWLEDGEMENTS.....</b>	<b>ii</b>
<b>ABSTRACT .....</b>	<b>iii</b>
<b>LIST OF FIGURES .....</b>	<b>vi</b>
<b>1. INTRODUCTION.....</b>	<b>1</b>
1.1 Web Application .....	1
1.2 Problem statement.....	2
1.3 Aims and Objectives .....	3
1.4 Outcomes and importance.....	4
1.5 Thesis Outline .....	4
1.6 Summary.....	4
<b>2. Requirement Engineering.....</b>	<b>5</b>
2.1 Use Case Scenarios .....	5
2.1.1 Use Case Providing Content and Services to The Clients.....	6
2.1.2 Use Case to buy the products.....	7
2.1.3 Use Case Product Category and Brand .....	8
2.1.4 Use case Price Range .....	9
2.1.5 Use Case Manage Product.....	9
2.1.6 Use case Manage Category, Brand .....	10
2.1.7 Use-case Manage Customer Info.....	10
2.2 Functional Requirements .....	11
2.2.1 Functional Requirement Giving an E-presence of the Shop .....	11
2.2.2 Functional Requirement Managing Product.....	11
2.2.3 Function Requirement Managing Category, Brand .....	11
2.2.4 Functional Requirement Managing Clients Order .....	12
2.2.5 Functional Requirement Feedback Management .....	12
2.2.6 Functional Requirement Update Cart.....	12
2.3 Quality Requirements.....	12
2.4 User interface Requirements.....	13
2.5 Logical Data base Requirements .....	14
2.6 Assumptions and Constraints .....	14
2.7 Candidate Tool for Development .....	14
2.7.1 Integrated Development Environment (IDEs) .....	15

2.7.2	Client Side Technology.....	16
2.7.3	Server Side Technology.....	17
2.8	Summary.....	19
<b>3.</b>	<b>The Proposed Web Application .....</b>	<b>20</b>
3.1	Use Case Diagram.....	20
3.2	User Inter face Design .....	22
3.3	Sequence Diagram.....	23
3.4	Data Flow Diagram (DFD) .....	25
3.5	Entity relationship Diagram (ERD) .....	27
3.6	Summary.....	28
<b>4.</b>	<b>Implementation and Testing .....</b>	<b>29</b>
4.1	tools used for Implementation.....	29
4.2	IDEs and other complementary tools .....	29
4.3	Client Side Technology .....	30
4.3.1	Server Side Technology.....	31
4.4	The User Interface Screen Shots.....	32
4.5	Testing Web Application.....	32
4.6	Summary.....	45
<b>5.</b>	<b>Conclusion and Future Work .....</b>	<b>46</b>
5.1	What Has Been Achieved?.....	46
5.2	Recommendations for Websites Development.....	46
5.3	Future Work .....	47
5.4	Summary.....	48
<b>6.</b>	<b>REFERENCES.....</b>	<b>49</b>

## LIST OF FIGURES

Figure 1. 1: Working Procedure of a Website .....	2
Figure 3. 1: Simple use case Diagram of the proposed website .....	21
Figure 3. 2: Detail use case of the e-commerce website .....	22
Figure 3. 3: The Proposed User Interface of the e-commerce website .....	23
Figure 3. 4: Sequence diagram for working with Admin Panel .....	24
Figure 3. 5: Sequence Diagram for user interacting with website .....	25
Figure 3. 6: Data flow diagram (DFD) working in Admin Panel .....	26
Figure 3. 7: Data flow diagram (DFD) for user interacting with website .....	27
Figure 3. 8: ERD for E-commerce website Database .....	28
Figure 4. 1: User Home Page .....	33
Figure 4. 2: User's Cart Page.....	33
Figure 4. 3: User Order Page .....	34
Figure 4. 4: User Delivered Orders Page.....	34
Figure 4. 5: User Return Orders Page .....	34
Figure 4. 6: About Us Page .....	35
Figure 4. 7: About Return policy Page .....	36
Figure 4. 8: About Payment Method Page .....	37
Figure 4. 9: About Shop Page .....	37
Figure 4. 10: Admin Panel Home Page .....	38
Figure 4. 11: Users Table .....	38
Figure 4. 12: Add new User .....	38
Figure 4. 13: Edit Existing User Page .....	39
Figure 4. 14: Categories Table .....	39
Figure 4. 15: Add new Category Page.....	39
Figure 4. 16: Edit Existing Category .....	40
Figure 4. 17: Brands Table .....	40
Figure 4. 18: Add New Brand.....	40
Figure 4. 19: Edit Existing Brand .....	40
Figure 4. 20: Products Table .....	41
Figure 4. 21: Add new Product .....	42
Figure 4. 22: Edit Existing Product .....	43
Figure 4. 23: Admin Cart List .....	43
Figure 4. 24: Orders Dropdown .....	44
Figure 4. 25: All Orders.....	44
Figure 4. 26: New Orders List .....	44
Figure 4. 27: Shipped Orders List.....	45
Figure 4. 28: Delivered Orders List .....	45
Figure 4. 29: Return Order List .....	45

# 1. INTRODUCTION

In this thesis we can share along you that how an e-commerce web application can be developed, and from how many passes we can pass to complete our task successfully. From start to end what strategies that have been followed by us as well as what information that have been gain by us throughout the development of the e-commerce website.

## 1.1 Web Application

A website is an application program that is saved on a remote server and broadcast over the internet through a browser interface.

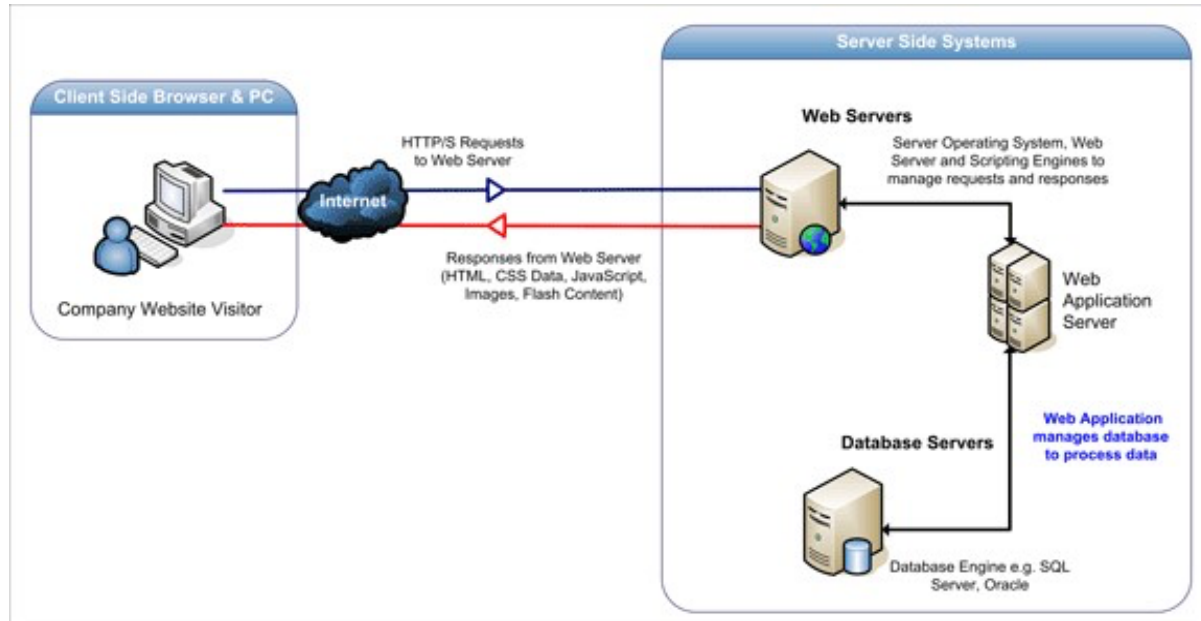
Website evolved from internet sites or internet systems. The primary internet sites, created by Tim Berners-Lee whereas at CERN (the European Laboratory for Particle Physics), this internet system may be multimedia system as a result of the resources within the system are connected to at least one another. The term internet comes from gazing the system as a collection of nodes with interconnecting links. From one view point, it's sort of a spider's internet. The links offer a way to navigate the resources of the system. Most of the links connect matter documents, however the system will be accustomed distribute audio, video, and custom knowledge furthermore. Links build navigation to alternative documents simple. The user merely clicks a link within the document, and the browser interprets that as a call for participation to load the document or resource in its place<sup>1</sup>.

Fig1.1 shows however a basic internet application works. Browsers and internet servers use a special protocol, referred to as the machine readable text. Transfer Protocol (HTTP), that specifies however a browser ought to format and send asking to an internet server. The shopper browser sends a document request consisting of a line of characters terminated by a CR/LF (carriage return/linefeed) try. A well-behaved server won't need the printing operation character. This request consists of the word GET, a space and the location of the document relative to the foundation of the net servers filing system. Once an internet server/site is

---

<sup>1</sup> <http://www.pearsonhighered.com/samplechapter/0201730383.pdf>

organized, it's sometimes found out to use a selected directory on the host machine's native filing system because the internet site's root directory. Documents area unit found relative to the current directory<sup>2</sup>.



*Figure 1. 1: Working Procedure of a Website*

## 1.2 Problem statement

E-commerce provides a simple approach to sell merchandise to an outsized client base. However, there's lots of competition among multiple e-commerce sites. Once users land on associate e-commerce web site, they expect to search out what they're probing for quickly and simply. Also, users aren't certain regarding the brands or the particular merchandise they require to get. They need a really broad plan regarding what they require to shop for. Many purchasers these days rummage around for their merchandise on Google instead of visiting

<sup>2</sup> <http://www.pearsonhighered.com/samplechapter/0201730383.pdf>

specific e-commerce sites<sup>3</sup>. Looking at this aspect, the matter statement for the projected work is.

*“To develop a full-fledged and dynamic e-commerce web applications according to the standards, functional and non-functional user requirements. From start to end using web engineering techniques, using models. A normal user can easily use the application and purchase the product so quickly and confidentially the user interface is so simply and not technical every user can easily browse the application and selling the product so quickly and easily. People watch what they pay on; thus, it’s solely natural to expect that they need to grasp everything there’s to grasp regarding the merchandise they’re about to purchase, the acquisition method, payment ways, the delivery service, warranties etc., that may facilitate them secure a choice and decide to a dealing. So, certify that you just have joined to the acceptable pages from your home page. Such foresight can save abundant of your support team’s time and cut back the amount of customer’s pre-sale facilitates requests<sup>4</sup>.”*

### 1.3 Aims and Objectives

The main goals of developing e-commerce web application are that the user they have no time to go to market and buy product or when the user free the market has been closed, so through e-commerce web application they have no need to go to market and also 24 hours they can do shopping because the e-commerce website can provide you a 24 hour service only you have the facility to connect to web. Following are some important objectives of the proposed work:

- To present whole shop on the web.
- Our clients can access our product from every place.
- No need to be available physically all the time in market.

---

<sup>3</sup> ]<https://www.safaribooksonline.com/library/view/apache-solr-search/9781783981847/ch01s05.html>

<sup>4</sup> <http://www.hongkiat.com/blog/essential-things-ecommerce-site-should-have/>

- Facilitate shopping methods.
- No restriction to see the product again and again and not purchase the product.

## **1.4 Outcomes and importance.**

To develop e-commerce website every user can access our product from anywhere they have no need to go physically to the shop from where they can purchase product. It saves customer's time because more than one client can access our products and the seller have no need to communicate the buyer because the description of every product is to be given.

You can get and sell approximately all things at your doorstep with the help of e-commerce in this 21<sup>st</sup> century which will be true for information transformation. E-commerce has modified your lifestyles entirely because you don't have to spend time and money in travelling to the market. There is no time limit in trading the products. One can log on to the internet even at twelve o'clock at night and can trading the products at a single click of mouse.

## **1.5 Thesis Outline**

The thesis has been divided into 5 chapters. Chapter one has presented the general introduction of e-commerce website, its working, and its development along with the problem statement for the project. Also highlighted the aims and objectives as well as outcomes and importance of the proposed work. Chapter two will investigate different use cases about the use of the proposed website. It then investigates different functional requirements and constraints on the development. Different candidate tools are also investigated from which will select tools for development in Chapter 4. Chapter 3 discusses the analysis and design through different use-case diagrams, activity diagrams, sequence diagrams, data flow diagrams and entity relationship diagrams. Chapter 4 will discuss implementation and testing. Finally, chapter 5 will conclude the discussion and put some future work for the coming students to accomplish.

## **1.6 Summary**

In this chapter we highlighted the basic introduction for an e-commerce website for online computer shop. We have discussed the idea and after completing the task what are the benefits of our project and formally described the problem statement. In chapter 2 we are investigating and engineering different requirements of the proposed website.

## 2. Requirement Engineering

In order to develop an efficient e-commerce website, we need to apply a certain rules of web engineering techniques one of them is requirement engineering. Requirement engineering, conjointly known as requirement engineering. Requirement engineering, conjointly know as requirement analysis, is that the method of decisive user expectations for a replacement changed or new product. These options, known as needs, should be quantitative, relevant and elaborated. It is necessary as a result of development might become severely troublesome if requirement square measure incomplete, incorrect or troublesome to perceive. Poor necessities might even lead to the cancellation of internet application development project. Alternative consequences embrace low acceptance among users, inadequate and incomplete internet application design, and designing failures. It is necessary as a result of development might become severely troublesome.

In this chapter we are engineering different requirements of the proposed website including functional requirements, quality requirements, user interface requirements, and logical database requirements along with different assumptions and constraints about the project and proposed web application. Different candidate tools are also discussed briefly.

### 2.1 Use Case Scenarios

A use case could be a list of action or event steps, usually process the interactions between a actor and a system, to attain a goal. The actor may be an individual's, associate degree external system or time. Use cases area unit typically written as part of elaborated product demand documentation. They capture the goal of associate degree action, the trigger event that starts a method, then describe every step of the method together with inputs, outputs, errors and exceptions. Use cases area unit typically written within the variety of associate degree actor or user acting associate degree action followed by the expected system response and various



outcomes. They supply humanistic anchors to guide style and development by providing tangible faces, names and stories for a way the technology is going to be used<sup>5</sup>.

In order to put in writing a use-case for an internet application, a number of steps are unit needed including:

- Identifying user that may use the website
- Choosing a user at a time
- Shaping the needs of the user, wherever every task the user performs becomes a use-case
- Deciding the normal course of event that led to an explicit use case
- Describing the basic course, the textual description of the use-case within the type of request response interaction between user and a system
- Thinking of different courses of events when describing the basic course for extending the use-case
- Establish the common use-cases by watching the commonalities among use-cases
- Continuance step for all users

### 2.1.1 Use Case Providing Content and Services to The Clients

Purpose:

The purpose of the use case describes how a clients visit the e-commerce website, how they can find the product and purchase successfully in short time. Shortly what the clients can see and what they can do when browse the application

Steps:

1. Type the URL of the web application into the URL search box

---

<sup>5</sup> <http://ux.stackexchange.com/questions/24717/do-you-use-scenarios-and-use-cases-as-one-or-separate>.

2. The home page will appear after done the step one, in home page you can see slider menu bar and content in which product will be seen.
3. Click on about us link from the menu to see general information about the shop.
4. When clicking in all products link from the menu all product in the shop will appear soon.
5. In the login dialog box, you can login to your account successfully if you have already created account.
6. You can also register your account by click register button on the login screen.
7. After successful login, you can add products to your cart. You can view all products in detail. You can place order for a product, you can also cancel your order.
8. After the product is delivered, you can click delivered button on the orders list to complete the order.
9. Click the feedback button from the menu to share your experience with the suppliers or the owner of the product
10. You can click on contact us to send a message or any difficulty you are facing while using the website
11. In the search text field enter the name of the product you want to purchase the click the search button the products will be displayed on the screen if available in the store.

### **2.1.2 Use Case to buy the products**

Purpose:

This use case describes that how a client can purchase a product. What procedure that have follow to buy products. Also describe to decrease or increase the number of quality of products, and how to remove the product from the cart.

Steps:

1. Click on the image or the title of the product the product will be displayed on another screen. Then click on the buy now button to place an order for the product.
2. You can also click on the cancel button to cancel your order.
3. You can also return the product after delivery if you find anything missing or fault in the delivered product.

4. Fill all the field carefully from the given text field form and click on register button to register yourself.
  5. After creating the account, you can enter your email and password to login. Put these user name and password in the login dialog box to login to your account.
- Click on the remove button to remove product from the cart
  - Enter the value of quantity text field and then click update button to increase or decrease the number of quantities of a product.
  - When clicking the place order button your order will be submitted successfully and the conformation message will be shown to the sellers.

### **2.1.3 Use Case Product Category and Brand**

Purpose:

Top bar menu contains a home page. When a user login to their account they can be directed to this page. Then when a user clicks on All products, they will find all available products of all category and brands. The they can also go to a specific category or brand by clicking the brand or category name in the home page. This will save time of the user if he searches for a specific category or brand product.

Steps:

1. By default, only four category and brand only shown when click the view all button of the category or brand then all the category or brand will be display.
2. By clicking the collapse button of the category or brand then only be default category and brand will be shown.
3. Different category and brand are shown when click the particular category or brand then the required product will display in the contents.

### 2.1.4 Use case Price Range

Purpose:

Price range means that according to price from low to high the product will be shown. E.g., if set low price 100 and high price is 500, so only that product will be shown in the content that have price between 100 and 500.

Steps:

1. Enter the value of low price in the first text field that the product shown in the content start from that price.
2. In the second text field put the right amount of price
3. Click the filter button only that product will be shown that have price between the low and the high amount.

### 2.1.5 Use Case Manage Product

Purpose:

Describe that how to insert new product, modify existing product. Remove the existing product. All aspect that are related to product have to be discuss.

Steps:

1. Login to the Admin account, the admin panel will appear where you can manage all the required steps required for running an e-commerce website.
2. Click on the category button in the side bar to add new categories. You can delete existing categories. You can also edit the existing category from the admin panel.
3. Click on the brand button to add new brand. Edit or delete existing brand.
4. Click on the product to add new products or delete existing products.
5. In the order section you will find links to the following different order tables.
  - New orders
  - Shipped orders
  - Canceled orders

- Delivered orders
- Returned orders

### **2.1.6 Use case Manage Category, Brand**

Purpose:

To update category or brand is very important if a company produce new brand or category of any product. So, we can easily insert, update or delete category or brand easily.

Steps:

1. Click on category in the side menu to view a list of all available categories.
2. Click on add Category to insert new category.
3. To update existing category, click on the pen icon in front of the category in the table to update the category name for the existing category.
4. To delete a category, click on the trash icon in front of the category to delete a category after confirming the deletion step or clicking ok on the pop up menu.
5. Click on Brand in the side menu to view a list of all available brands.
6. Click on add Brand to insert a new brand.
7. To update existing brand, click on the pen icon in front of the brand in the table to update the brand name for the existing brand.
8. To delete a brand, click on the trash ion in front of the brand to delete a brand after confirming the deletion step or clicking ok on the pop up menu.

### **2.1.7 Use-case Manage Customer Info**

Purpose:

Customer related information and their cart status is very important for seller. That the seller knows how many users can visit our site how many user are register along us and how many user want to buy the products.

Steps:

1. Click on the User in the side menu to see a list of all available users.

2. You can update user information by clicking the pen icon in front of the user in the table.
3. You can update user name, email, you can also make a user as admin by updating their user type from U to A.
4. You can delete a user by clicking the trash icon in front of the user.

## **2.2 Functional Requirements**

Functional requirements describe the behavior of the system. Here we describe that the web application work systematically and fully completes the purpose and needs of the clients.

### **2.2.1 Functional Requirement Giving an E-presence of the Shop**

The main purpose and objective of the project is to present the computer shopping mall into internet. That will access from anywhere and anytime through worldwide web. No constrain to access the shopping mall, twenty four hours a day the shopping facility have to available to purchase the product. And inform the people or clients for latest product and sale product.

### **2.2.2 Functional Requirement Managing Product**

The most important is to update, delete and insert new product. If necessary to increase or decrease the price of the product or other attribute so we can do it easily and the changes apply to that product does not apply to all products. so it is very important to perform different operation upon a particular product. The product will be shown in the contents. And the content is very important for every web application so put the content is so beautiful,

### **2.2.3 Function Requirement Managing Category, Brand**

Category and brand appear to the left of the product if a user want to see a particular category or brand product is the content as soon as possible so they can do it through category and brand. If the user can click in the specific category or brand only that category or brand product will be seen in the contents. Not waste the time of the clients to buy products show you a given product in the content by clicking that category or brand. And also, can perform different

operation e-g insert new category or brand, update existence category or brand, and delete the existence category and brand.

### **2.2.4 Functional Requirement Managing Clients Order**

It is also very important to see that what users can do they want to buy the product or not and which type of product they want to purchase. The client information is very important for seller. That the seller can know the required information of the client about the product, the purchaser address, email, phone number etc. if a user wants to purchase more than one quantity of any product so the seller can easily identify it. And the seller has also the authority to delete the order of the customer.

### **2.2.5 Functional Requirement Feedback Management**

Feedback means to collect views of the customer about the shop, product. What they want new in your shop that is present in the worldwide web, customers will inform the seller about the latest products. So, the customer can put has comment legally, and also some useful information to submit a feedback form, and the seller can reply easily for has feedback as soon as possible. And the seller has also the facility to remove the information of the customers.

### **2.2.6 Functional Requirement Update Cart**

If the customer selects one or many products to purchase it, and later before to submit the order they want to update has status for example remove the product, increase or decrease the product. So, the customer has the facility to update has cart status.

## **2.3 Quality Requirements**

Quality requirements are sometimes called non-functional requirements. Quality requirements describe performance, reliability, availability, security, scalability, usability and maintainability, so all the above characteristics must be included in a typical website to obtain deficient quality requirements. And every web application performance is very important because of a good performance the user does not wait to waste has time. Good performance

means the application loaded into browser as soon as quickly and also load in slow connection (load in basic html) data retrieve and storage is in short time.

The system should work reliably in dealing user requests. It must be available 24/7 as different users access the website in different time frames. The website is to be secure the unauthorized user can't access the application to alter the data. Only the admin user can access the admin area to update the website. Similarly, in case of any faults and errors, the application has the facility to be maintain and scalable. It must be usable and simple enough so that an ordinary user with minimal computer usage knowledge should perform the required task as soon as possible.

## **2.4 User interface Requirements**

User interface is very important to see all aspect that the looking is not so boring, the suer enjoy it to looking the interface. The text shown clearly and use simple language that every customer can understand it easily. The products have to be arranged in a sequence and customer can find it easily.

All users must be able to view all the content available on the web pages of the website. They must be able to send feedback to the web administrator. The interface is shown in laptop or desktop screen as same shown for mobile. User mouse and keyboard for interaction of a customer along with application. Shortly the interface is very important, and they must include the following characteristics.

- Clear
- Responsive
- Concise
- Familiar
- Consistent
- Attractive
- Efficient
- Forgiving



## 2.5 Logical Data base Requirements

According to IEEE SRS document standard any information that is stored in the database should be explain in the terms of logical requirements for that information. This includes

- Types of information that particular functions use.
- How many times that information is used.
- Access power and constrain to accessing that database.
- Entities and the relationship between these entities, i.e., ERD
- Restriction on the integrity of data
- Requirements for data reservation. [1]

Only the authorize user can access the database, it means only administrator can do it, because all useful data, customer information are stored in the database. On the website some features are static that have not changed frequently and some feature are dynamic they have need to changed frequently so update that dynamic feature from database easily. Avoid for the repetition of data, don't store the duplicate of the data. In database normalization is important to avoid error for storing or retrieving the data.

## 2.6 Assumptions and Constraints

Certain assumptions and constraints should be made in order for holding maximum advantage of the functionalities of the given website.

Furthermore, some basic hardware and software are also required for the development of the website.

Some basic information that must know for customer to use website i.e. they know to open the browser and enter the URL of a required website in any search engine. They have some idea about a hyperlink, hypertext to navigate pages and successfully complete has job. And the first one is the internet connection for communication between customers and web application.

## 2.7 Candidate Tool for Development

There are different tools and web development language are available, client side and server side languages to develop a required website. In this section we describe different candidate

integrated development environment (IDEs), also used different client side and server side languages to develop a proposed web application.

### **2.7.1 Integrated Development Environment (IDEs)**

An IDE is a combination of different applications including a Graphical User interface (GUI). Code editor, a compiler, a debugger that are packaged as one application and present a graphical programming interface for the developer. (IDEs) provide a user-friendly programming environment where coding is easy and various programming related problems are becoming easy to solve. To develop an e-commerce website that is the task of our project. We focus on (IDEs) are available to complete our task successfully i.e., Homesite. Dream Weaver, WordPress, and Front Page that automates most of the web development tasks and make web development so easy.

It is important to know that every (IDEs) have some advantages, limitation, drawbacks so use the correct one. Most of the IDEs that are available in the market are multi-languages support (IDEs), i.e., they support one or more than one programming languages and you have to setup the environment for working with a particular programming language. Every language environment is different from one another. These multi-languages (IDEs) include Eclipse, NetBeans, Komodo, Aptana, Backadder, GeanyandDreamWeaver, JetBrains. [2]

In all available IDEs, some are free open-source, and some are not free it means to be purchased. For the given project we use free and open source tools Visual Studio, WAMP Server, MYSQL because no one issue us fund. Visual studio is most popular IDE that is widely used for different languages development we used it from developing PHP Laravel website. It has a lot of extension for website development like HTML, CSS, JavaScript, PHP and so on. This extension can be used for auto code completion to make the development easy, for new developers like us this IDE is very useful and supportive.

Wamp servers provide us to do database setup for our application. It also provides us a free localhost server where we can run our website for free. It also provides us the database management by visiting phpMyAdmin on the local host where we can get all the data from our application.

### 2.7.2 Client Side Technology

The technology or language used to develop web application run on the client, local machine has no need to connect to server called client side technology. Client side technologies that I will be using for the given project are below

#### a. Markup Languages

A language that is used to format the webpage, text, images is called markup language. HTML (hypertext markup language) is the best markup language for developing of web application. HTML is the combination of two words. Hypertext and markup, hypertext means that a text that was link to other document, page through hyper link by clicking the text to go to the required page, and markup means to format the text, image and webpages to develop a website.

HTML is usually used for developing static web pages, and use tags i.e., `<title></title><h1></h1> <body></body><main></main>` to tell the browser that display the given data according to that tag. Browser read the tags and can understand the correct tags and the data is to be shown to the user according to the correct tags. Usually in HTML table. Frame, list used to develop web application. The latest version of HTML is HTML 5, that can use some extra advance tags. Attribute that the developer can easily put in webpage. And make the web application more flexible and usable

#### b. Client Side Scripting Languages

JavaScript is associate in object-oriented, interpreted taken lightweight scripting language which will be used as each server side as well as client-side scripting. However, it is largely used as client side scripting language for corroboratory input information received from the user on the user interface. It is mostly used controlling and dominant the user behavior once sure events are triggered. It is easy to be told and use. It resembles to serious weight programming language like C/C++ and Java. In sure programming constructs likes if statements and loops, however, it is a separate scripting and independent from other programming languages.

The most important work of the scripting language (JavaScript) is to store the valid and correct data into the database that is gain from any suer. And apply such certain constrain from un-

authorized user and the invalid user cannot access the secure data. Alternate languages are also used instead of java script like VB script, action script, Dart, type script.

c. Style Languages

Cascading style sheet (CSS) is a style language use simple mechanism to add design (i.e., color, font, spacing, merging) to web document. CSS is used to make our web pages, web application so beautiful. CSS is intended primarily to alter the separation of document content from document presentation, as well as aspects like the layout, colors, and fonts. This separation will improve content accessibility offer a lot of flexibility and management within the specification of presentation characteristics.

### 2.7.3 Server Side Technology

Languages are technology that was run or execute on server not on client called server side technology. The important server side technologies that I will use in the project are below.

a. Web Server

A web server is a server-side application, installed on server and provides web specific resources to the clients request if the client request for such resources. The request is put in (URL), which is translated to a file or program name and sends the output content in that file to the client as a response. For such an activity and interaction to take place between clients and server.<sup>6</sup>

More than on server software have been developed, the most popular web server is the Apache HTTP server, that is free, open-source web server with a big support available from Apache software development community, it is available in various versions to be used with Unix/Linux and Windows and easily integrates with other open-source applications including MYSQL and PHP for web development. The project holding the Apache HTTP Server is

---

<sup>6</sup> <http://code.tutsplus.com/tutorials/anintroduction-to-apache--net-25786>

basically an effort for developing and maintaining an open source HTTP server for different platform.<sup>7</sup>

For the given project I will use PHP Laravel framework and MYSQL as a database, WAMP AND XAMPP are widely used web server easy to learn and compatible with micro soft windows. A user they have little knowledge about WAMP and XAMPP can also called three in one because PHP, MYSQL, Apache are available in every WAMPP and XAMPP.

#### b. Server Side Scripting

More than one server side languages, technologies are available for developing websites i.e. Java, PHP, ASP.NET, Ruby, ColdFusion, and servers die Java Script, but the most widely used are PHP and server side Java Script. I will use the PHP as a server side Scripting language.

PHP is the most powerful tool as used for server side technology. Originally PHP know as personal home page also called per-processor hypertext. Today loops that is used in C/C++ are also used in PHP syntax of both are almost same. PHP use to develop dynamic content that was changed frequently and can update from database using PHP. The most important if use PHP you will need a web server because PHP is a server side language and without the web server the PHP environment or running the PHP program are impossible. If a user has no facility to connect every time to the web server using PHP, WAMP and XAMPP are tools to install into client's computer they work then as a client as well as a server, so you no need to connect every time to the server.

#### c. Database Solution

So many databases are available to store and retrieve the data, if someone need the database developing web application i.e. MYSQL, MSSQL, MSACCESS, ORACLE and DB2. I will use the PHP as a server side language for dynamic content, so using PHP MYSQL is so suitable, for this reason I will use MYSQL as a database.

---

<sup>7</sup> <http://code.tutsplus.com/tutorials/anintroduction-to-apache--net-25786>

MYSQL (RDBMS) relation database management system is ideal for developing small or large websites, because it is reliable, faster and easy to understand. Maximum records can be stored in single table. MYSQL use tables to store and retrieve data, and the tables are communicating with each other through primary and foreign keys. MySQL use structure query language (SQL) to communicate with database from the user interface. SQL used to produce connection between web Documents and database, and can store and retrieve data from the database, and perform so many operations upon database i.e., insertion, deletion, modification.

## **2.8 Summary**

In this chapter we have explain use-cases of the given website and exchange view how users as well as clients and administrator will interact with the web application. On the basis of the use-cases, we granted different functional and non-functional requirement. We also explore quality requirement, user interface requirement, logical database requirement, and different assumptions and constraints on the development and use of the given website. We also studied the candidate tools for the development and testing of the proposed website. In chapter 3, we present the analysis and design of the proposed web application on the basis of the requirements that we engineering in this chapter.

### 3. The Proposed Web Application

In this chapter we cover the structure and working procedure of the e-commerce web application, that how a particular user can gain has job. The Unified Modeling Language (UML) describe a more affluent source of different diagrams that shows a comprehensive analysis model of the system. We will include in this chapter, different use-cases diagrams, activity diagrams, sequence diagrams, data flow diagrams and entity relationship diagrams, we will also design the user interface and the various navigation paths that the users will take in sequence to complete a specific action or to access a specific piece of information.

#### 3.1 Use Case Diagram

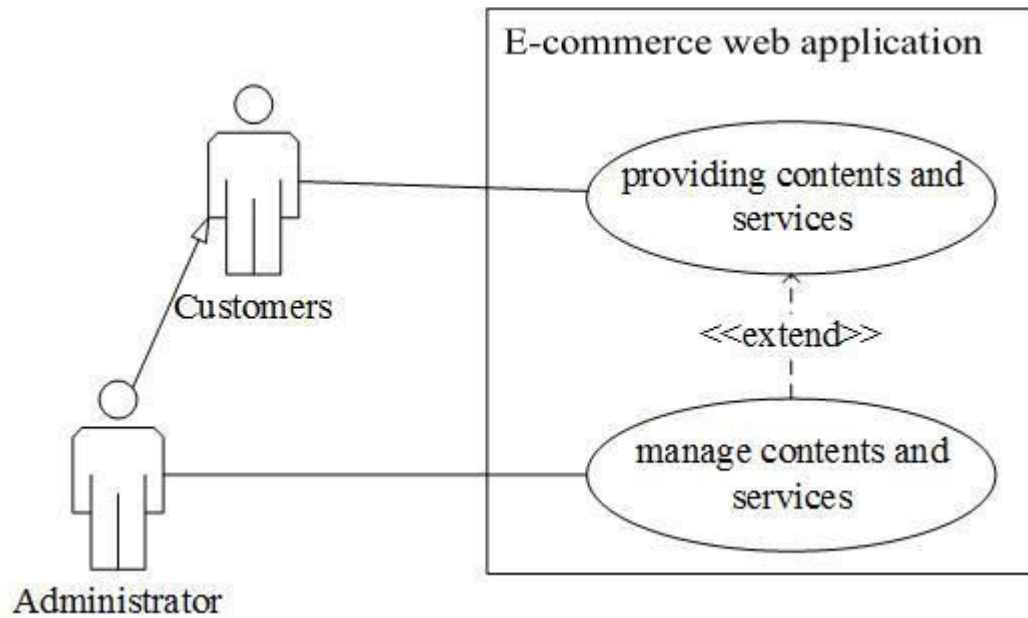
A use case diagram describes simplest ways of a user's interaction with the system that shows the link between the user and therefore the completely different use cases during which the user is concerned. A use case diagram will establish different kinds of users of a system that shows the link between the user is concerned. A use case diagram will establish different kinds of users of a system and therefore the different use cases and can typically be in the course of alternative kinds of diagrams in addition<sup>8</sup>.

Use case diagram represent

- **Use Case:** Use case is the system attitudes that communicate with actors and give response of a series of requests.
- **Actor:** Actor is user system that performs actions upon use cases.
- **Associations:** Associations describes the link between the sue case and the actor, associations may be a stable line.

---

<sup>8</sup> [https://en.wikipedia.org/wiki/Use\\_Case\\_Diagram](https://en.wikipedia.org/wiki/Use_Case_Diagram).



*Figure 3. 1: Simple use case Diagram of the proposed website*

Figure 3.1 describes the simple use case of the recommended web application with only two major use cases and their actors. The first use case is for all user, only can read the contents and services not to make modification. The second use case is only for administrator user that can make update the contents and services.

Figure 3.2 shows the detail use case of the proposed website that explain every feature and contents of the application very clearly. A customers can see contents, products, slide show, cart status and so many feature. For every user they have allowed to visit every page excepts admin pages.

For managing the contents and services of the e-commerce website only the administrator has allowed to manage all these. They can access the secure admin panel through a secure username and password. Every user has no information about this user name and password.



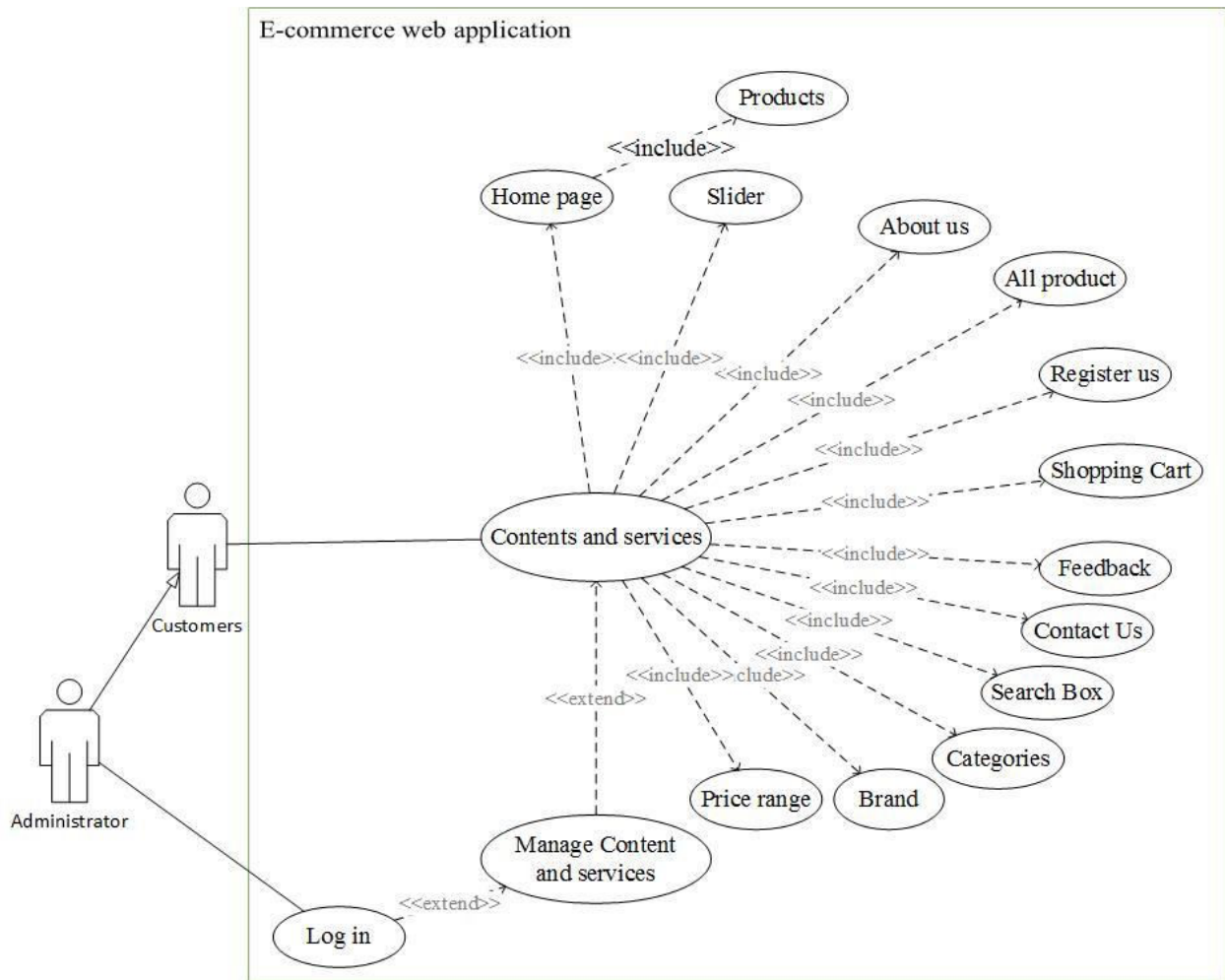


Figure 3. 2: Detail use case of the e-commerce website

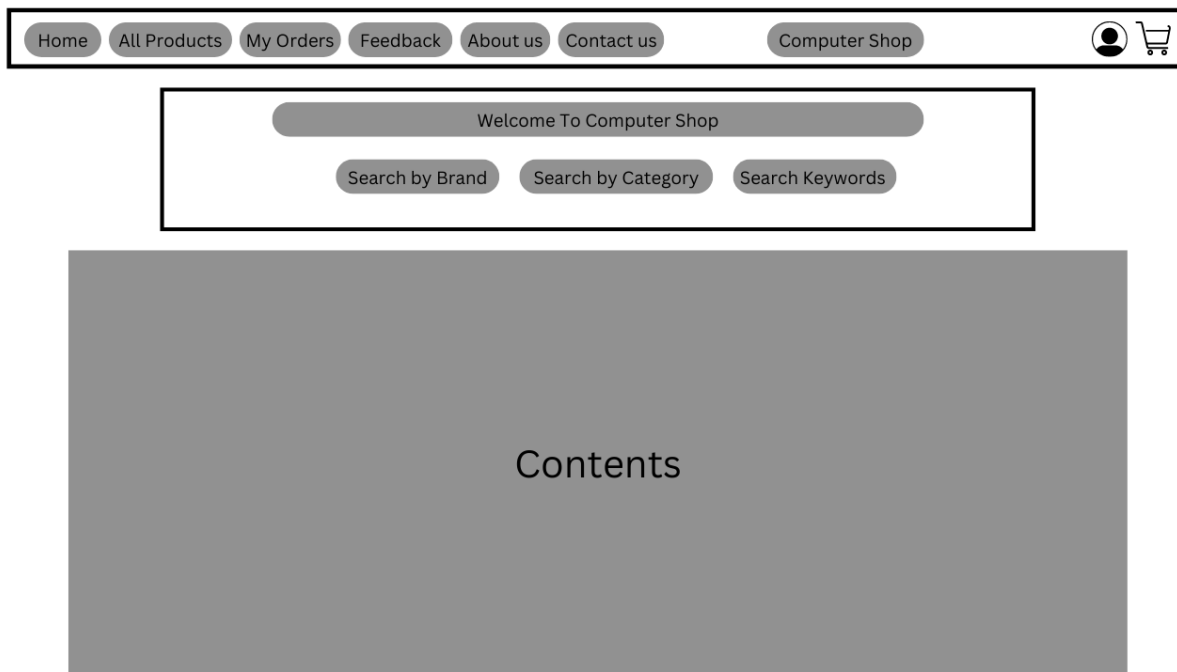
### 3.2 User Inter face Design

An important fact within the style of websites is coming up with clear and obvious and user-friendly user interfaces thus that users will simply perform their desired tasks. A sensible user interface should be clear by avoiding ambiguity exploitation a clear language, hierarchies, flow and metaphors of visual components. The interface ought to be obvious as you can't train users on the net. The user interface should be aphoristic, use purposeful label and links however don't explain everything, this makes the online pages troublesome to envision and use. The utilization of metaphors in the design of net program is of nice facilitate, as folks square measure familiar with things and if you use acquainted things like folder-links tabs, they will simply use the online application, [3]

The application should be responsive in terms of speed and feedback once user interacts with it. Use of dialog boxes that make sure actions from the user or show success message is of nice

facilitate. The user interface ought to be consist each in structure as well as in the sue of colors, fonts, and several alternative things as well as the aesthetics or look and feel of the internet application. It should be economical in terms of productivity by serving to users through the use of shortcuts and smart style. It should alter users to undo actions and recover a deleted go into case they make bound mistakes and desires to roll back [3]

According to the user requirements the user interface is fully dynamic, responsive and simple every user can easily use the application if they have little knowledge about worldwide web and computer. You can see the user interface of the proposed web application in Fig 3.3.



*Figure 3. 3: The Proposed User Interface of the e-commerce website*

### 3.3 Sequence Diagram

Sequence diagram also known as interaction diagram, which demonstrates the system graphically and show how different processes interoperate and what their order execution. Sequence diagrams produce clear picture to the stakeholders for the purpose of to easily understand that how different actions will occur along with their order so they can negotiate to any feature if they have any object. Figure 3.4 represent the sequence diagram of the proposed

web application that describes different process and events while working with the admin panel of the website. Figure 3.5 describes the interaction of user with the website show how different action are occur in background [4].

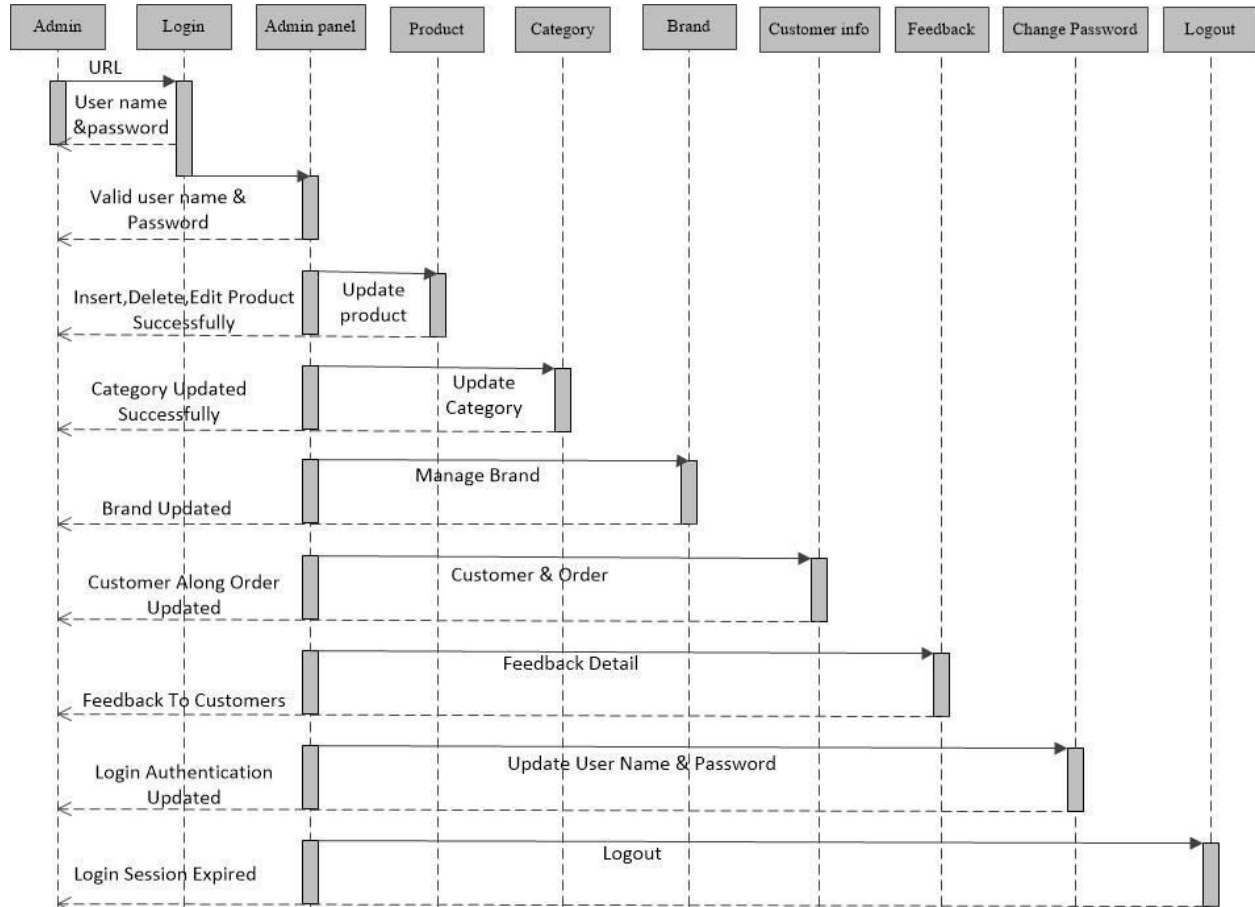


Figure 3. 4: Sequence diagram for working with Admin Panel

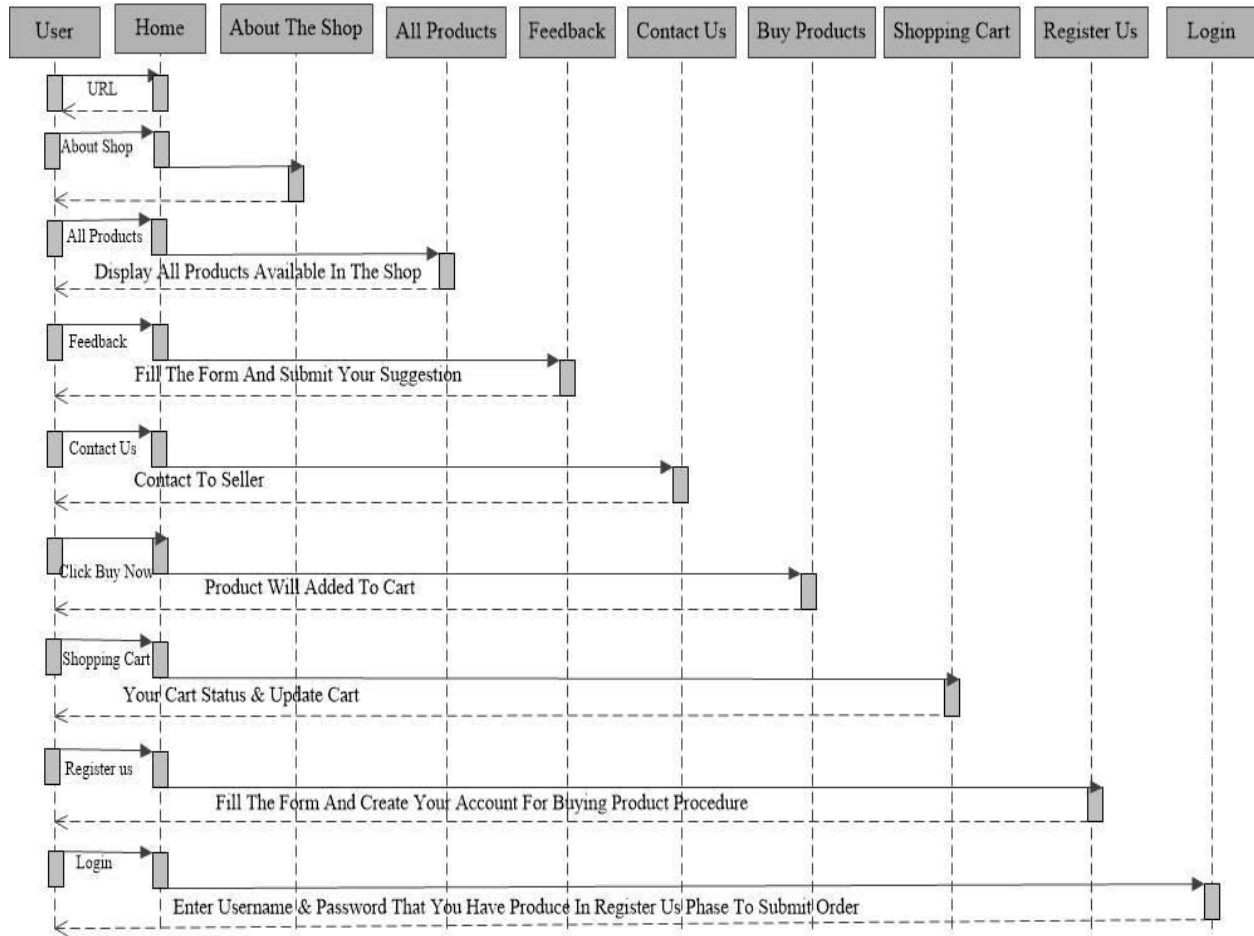


Figure 3. 5: Sequence Diagram for user interacting with website

### 3.4 Data Flow Diagram (DFD)

Data flow diagram (DFD) describes data movement from outside the system, as well as inside the system form one transaction to another transaction between process and the logical storage. When data flow from one process to another, it gain transformed. Through data flow diagram (DFD). We can easily tracked these transformations [5].

Figure 3.6 shows DFD diagram produce data flow when the user wants to make some changes or update the content is the admin area, and DFD is for admin panel. The admin panel works as a multi-state process and the administrator have the authority to access any process from the admin panel. All these processes are shown in the Figure 3.6 the database is used to store and retriew the correct data.

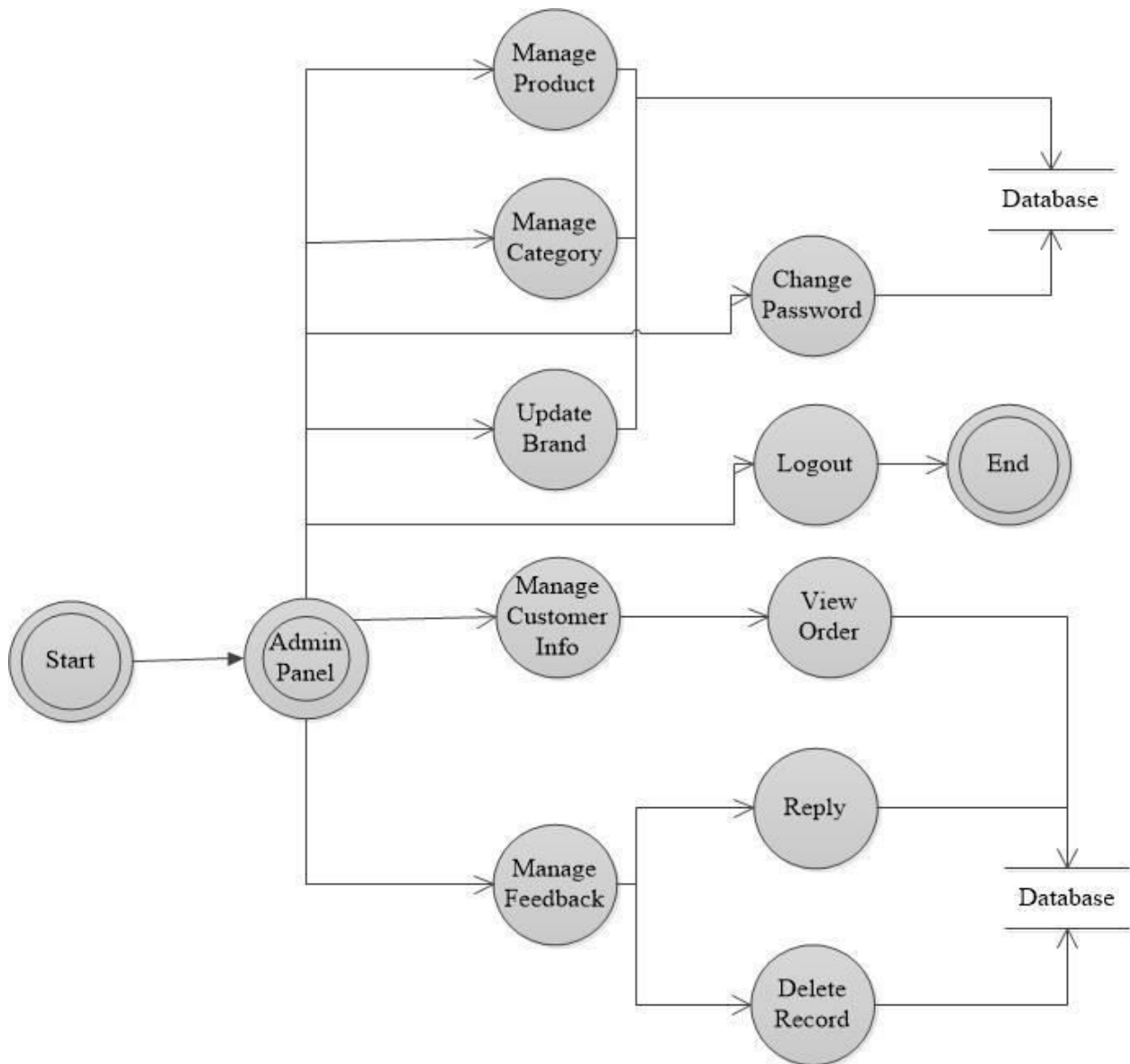


Figure 3. 6: Data flow diagram (DFD) working in Admin Panel

Another data flow diagram (DFD) for the given website is for the customer to interact with the application as shown in figure 3.7. That describes the flow of data from one process to another when the beginner or end user access the contents and services of the proposed website. Here also the logical storage is used for accessing data from the database. The end user has no authority to update the contents and services of the web application, they have only done to send the feedback to admin for any consistency.

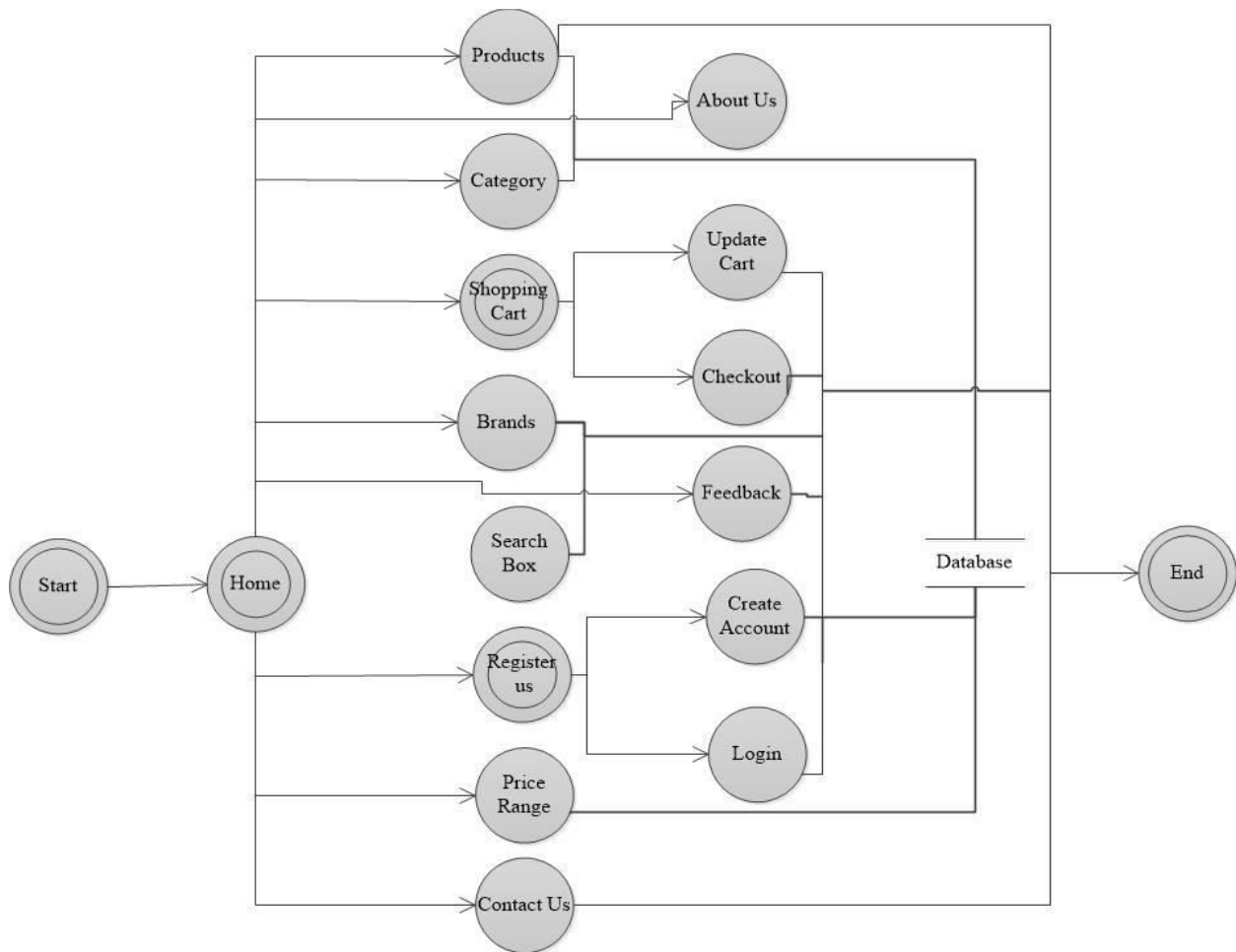


Figure 3. 7: Data flow diagram (DFD) for user interacting with website

### 3.5 Entity relationship Diagram (ERD)

Entity relationships diagram (ERD) to represent the database is graphically. The most important in the dynamic website is the database because the feature that was updates frequently the database is used to store and retrieve the data. The static features have no need to store the data into the database. Database is the combination of one or more than one entities/tables. ERD is used to show us the entities and their relationship graphically.

The ERD for the proposed web application have 8 eight. Entities and their attributes include, Admin, products, categories, brand, cart, clients, customer order, feedback shown in figure 3.8.

The admin entity contents and attributes have to be accessed whenever login to the admin panel, the products entity have sixteen attributes that can store all related information of the products, the categories contain two attributes to store the category information, brand have also two attributes to store brand related information, similarly entity customer order, clients,

cart, feedback every have own attributes and store the information about purchasing the product, give feedback to customers. As shown in figure 3.8.

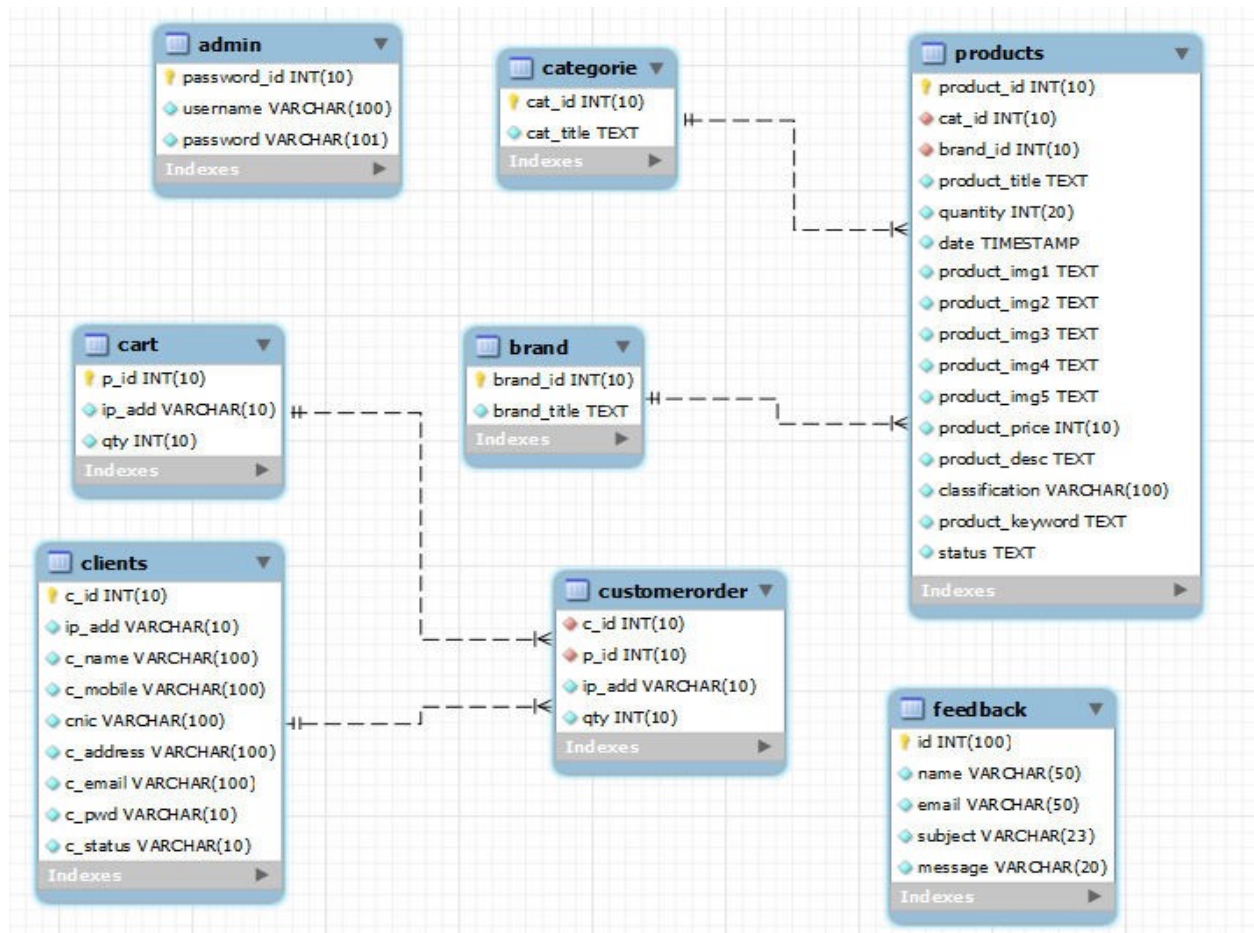


Figure 3. 8: ERD for E-commerce website Database

### 3.6 Summary

In this chapter we have discussed the working mechanism, interaction of the user to the system structure behavior of the given website for easy understanding the structure and behavior of the website we have followed some graphical technique to represent the web application from different feature. Graphical representation of the website includes use case diagram for deciding possible user and features, user interface diagram to show the interface of the web application, data flow diagram for data transformation, ERD entity relationship diagram for graphical representation of the database. In chapter 4, we will discuss implementation and testing of the proposed web application and its testing.

## 4. Implementation and Testing

The most important of the web application activities is the implementation activity, in this phase according to the requirements, analysis, and design the developer use different tools and techniques to practically develop the proposed website. The activities in the implementation phase include coding in any programming language or markup languages to actually implement the web pages: check the web pages in all browsers to see it look and user interface: usually use HTML, HTML5 for formatting and static web pages: server side technology usually used for dynamic web pages, and client side technology use to develop static web pages. An implementation data is very important for this purpose to store the data permanently or temporary use data bases.

In this chapter, we will do the implementation of the proposed website. Our first job is to choose implementation tolls that discussed in chapter 2. After that we will present some screenshots of the implemented website with their short description. Finally, we briefly present testing of the website

### 4.1 tools used for Implementation

there are different tools and web development language are available, client side and server side languages to develop a required website. In this section we describe different candidate integrated development environment (IDEs), also used different client side and server side languages to develop a proposed website.

### 4.2 IDEs and other complementary tools

An IDE is a combination of different applications including a Graphical User Interface (GUI), code editor, a compiler, a debugger that are packaged as one application and present a graphical programming interface for the developer. (IDEs) provide a user friendly programming environment where coding is easy and various programming-related problems are becomes easy to solve. So many (IDEs) are available to complete our task successfully. For the given project we use free and open source tools Visual studio Code, WAMP, MYSQL because no one issue us fund. That automates most of the web development tasks and make web development so easy.



Visual studio supports all available languages, technologies, for developing of web application including HTML, HTML 5, CSS, JavaScript, PHP and so on. Visual Studio Code is semi automated code generator, if a User is to develop website and coding with HTML, CSS so Visual studio extensions are big support for him to develop websites easily.

Visual Studio provide graphical layout for development where code is automatically generated when one adds different user interface components to the web page. The code is generated at the back, which can be seen and edited any time. Easy use of CSS, attractive websites can be developed in short time. For dynamic web pages to the database using MYSQL, ACCESS or other.

### **4.3 Client Side Technology**

The technology or language used to develop web application run on the client, local machine has no need to connect to server called client side technology. Client side technologies may be markup languages, scripting languages and style languages etc.

A language that is used to format the webpage, text, images is called markup language. HTML (Hypertext markup language) is the best markup language for developing of web application. HTML is usually used for developing static web pages, and used tags i.e., `<h1></h1>` `<body></body>` `<main></main>` to tell the browser that display the given data according to those tags. Browser read the tags and understand the correct tags and the data is to be shown to the user dominant the user behavior once sure events are triggered [10]. The most important work of the scripting language (java script) is to store the valid and correct data into the database that is gain from any user. And apply such certain constrain from the un-authorized user and the invalid user cannot access the secure data. Alternate languages are also used instead of java script like VB script, action script, Dart, type script. Cascading style sheet (CSS) is a style language we have sued simple mechanism to add design (i.e., color, font, spacing, merging) to web document. CSS is used to make our web pages, website so beautiful. CSS is intended primarily to alter the separation of document content from document presentation, as well as aspects like the layout, color, and fonts. This separation will improve content accessibility offer a lot of flexibility and management within the specification of presentation characteristics.

### 4.3.1 Server Side Technology

Languages or technology that was run or execute on server not on client called server side technology. The important server side technologies that I have used in the project include web server, server side scripting languages, PHP Laravel and MYSQL as used for database.

Apache HTTP server is a web server and a server-side application, installed on server and provides web-specific resources to the clients request it for such resources. The request is put in (URL), which is translated to a file or program name and sends the output content in that file to the client as a response, for such an activity and interaction to take place between clients and server [11]. And have used PHP Laravel as a server side language and MYSQL as a database. WAMP and XAMPP are widely used web server easy to learn and compatible with Microsoft windows. A user they have little knowledge about WAMP and XAMPP can also configure and make an environment for PHP. WAMP and XAMPP are also called three in one because PHP, MYSQL, APPACHE are available in every WAMP and XAMPP. Originally PHP know as personal home page also called pre-processor hypertext. Today billion of websites are developed using PHP. Conditional statements, loops that is used in C/C++ are also used in PHP syntax of both are almost same. We have used PHP to develop dynamic content that was changed frequently and can update form database. The most important if use PHP you will need a web server because PHP is a server side language without the web server the PHP environment or running the PHP program are impossible. If a user has no facility to connect every time to the web server using PHP, WAMP and XAMPP are tools to install into client's computer they work as a client as well as a server, so you no need to connect every time to the server.

MYSQL (RDBMS) relation database management system is ideal for developing small or large websites, because it is reliable, faster and easy to understand. Maximum records can be stored in single table. MYSQL use tables to store and retrieve data, and the tables are communicating with each other through primary and foreign keys. I have used MYSQL structure query language (SQL) structure query language to communicate with database from the user interface. SQL used to produce connection between web documents and database, and can store and retrieve data from the database, and perform so many operations upon database i.e., insertion, deletion, modification.

## 4.4 The User Interface Screen Shots

Using the tools that have been discussed in Section 4.1, we have finally developed a well-defined, according to the requirements of the user a proposed website, in which many of the features presented in Chapter 3 have been implemented. However, some features along with important aspects such as security, performance, scalability, reliability, and integration with legacy systems including the examination section, are yet to cover. They have kept these features for the future work. What they have implemented are depicted in the screenshots introduced in this section. Figure 4.1 displays the index page when the page loads in to the browser for the first time. Other web pages are depicted in Figure 4.2 to 4.25.

## 4.5 Testing Web Application

After implementation the given task testing is very important, to see that all components are working correctly and fully functional and complete the needs of the customers, for this purpose we have performed some technical and functional test of the web application according to the user requirements. As shown in the given picture.

Homepage is the access point to our site, and it sets the tone for your brand's value and site's submission. It has a high traffic capacity and will more speedily collect data. And the search box is also tested to show the correct products as the user wants. Test the link also that works properly and don't navigate to wrong page. Check the implemented web application into different web browsers, to check compatibility, functionality, usability and consistency. Also check spell checking, form submission, retrieval of data from database and the most important is to check that incomplete data was not sent to database.

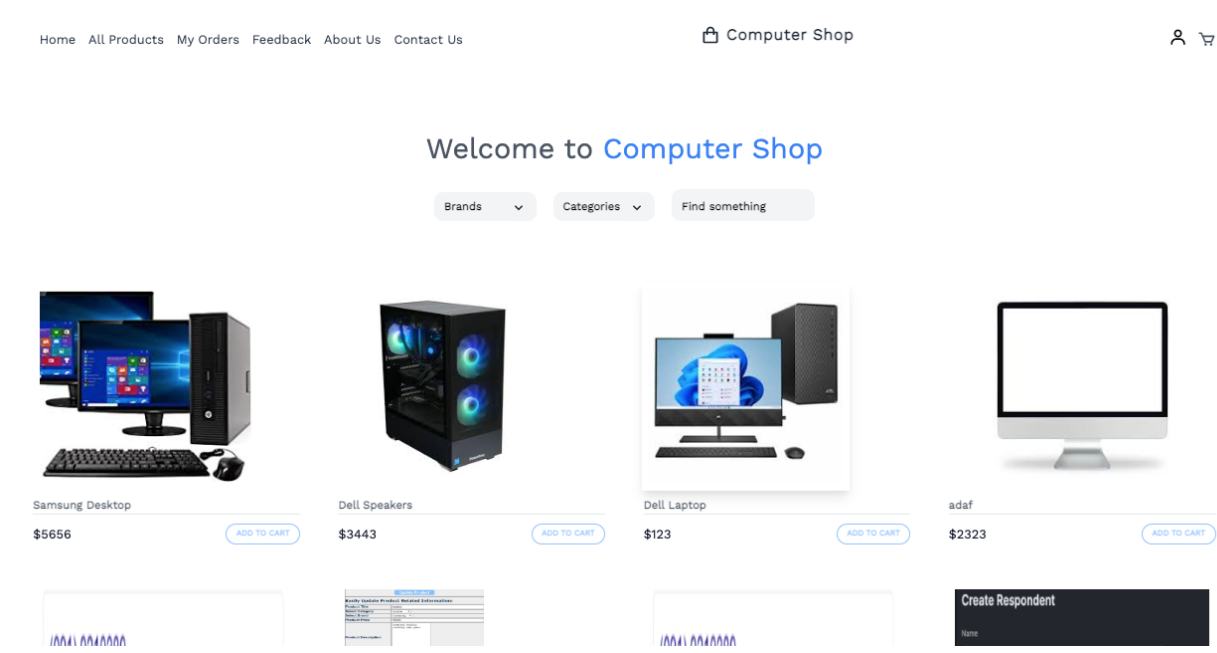


Figure 4. 1: User Home Page

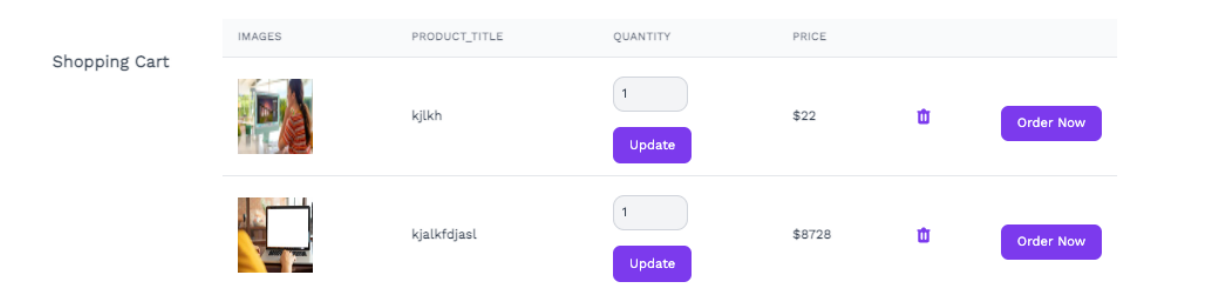









Figure 4. 2: User’s Cart Page

My Orders Delivered Returned	IMAGE	NAME	ADDRESS	PAYMENT METHOD	PRODUCT	QUANITTY	PRICE	STATUS		
		User	Thana bypass	Cash on Delivery	kjalkfdjasl	1	\$8728	Placed	Recieved	Return
		User	Thana bypass	Cash on Delivery	kjlkjh	1	\$22	Placed	Recieved	Return
		User	Thana bypass	Cash on Delivery	kjalkfdjasl	3	\$26184	Shipped	Recieved	Return
		User	Thana bypass	Cash on Delivery	kjlkjh	1	\$22	Placed	Recieved	Return

*Figure 4. 3: User Order Page*

My Orders Delivered Returned	IMAGE	NAME	ADDRESS	PAYMENT METHOD	PRODUCT	QUANITTY	PRICE	STATUS
		User	Thana bypass	Cash on Delivery	kjalkfdjasl	1	\$8728	Delivered
		User	Thana bypass	Cash on Delivery	kjlkjh	1	\$22	Delivered

*Figure 4. 4: User Delivered Orders Page*

My Orders Delivered Returned	IMAGE	NAME	ADDRESS	PAYMENT METHOD	PRODUCT	QUANITTY	PRICE
		User	Thana bypass	Cash on Delivery	kjlkjh	1	\$22

*Figure 4. 5: User Return Orders Page*

1. Payment Method

2. Return Policy

3. Shop

## Why Computer Shop?

### Shopping that helps you make the right choice

Computer shop offers you a shopping experience that is unparalleled in Pakistan. We provide the most stylish trendy and reliable shopping platform that is light on your pockets with an unmatched convenience level. At computer shop we understand your needs, hence we strive to offer you the most stylish, personalized and secure online shopping experience. We showcase products from a wide scope of brands: established foreign names to Pakistan's local retail entities.

### Our Services to your Doorsteps

Want to buy a product you like? It is just a few clicks away and we will deliver at right at your doorstep. Payment is simply cash on delivery by our rider; a wider range of options are also available during checkout. Delivery is door-to-door and handled by our trusted logistics partners.

Don't like what you bought? We offer a FREE 7-days return policy

*Figure 4. 6: About Us Page*

1. Payment Method

2. Return Policy

3. Shop

## Return Policy

### Our goal is to ensure your complete satisfaction

If for whatever reason, you are dissatisfied with your purchase, you can return it to B&H within 30 days of purchase date subject to conditions below. Claims for missing items or items damaged in transit must be received within two business days of receipt of merchandise.

### Refunds and Credits

Refunds on returned items will be issued in the same payment form as tendered at the time of purchase. Once we receive and inspect the product we will credit your account. Please allow 5-7 days for a credit to appear on your account. If Payment was made by cheque, the refund cheque will not be issued before 10 business days after the date of purchase.

### Exchanges

If the item was sent back for an exchange, please allow 3-5 business days for the replacement to be processed.

### Conditions

Please read all conditions below. If conditions are not met, B&H reserves the right to refuse the return or to charge a restocking fee not less than 15%.

All returned or exchanged items must be in new condition, in their original box, and must include all packing material, blank warranty cards, manuals, and all accessories.

B&H is not responsible for personal data or items left in returned merchandise.

B&H is not responsible for any consequential or incidental damages resulting from the sale or use of any merchandise bought from us. We are responsible for the monetary value of the merchandise only.

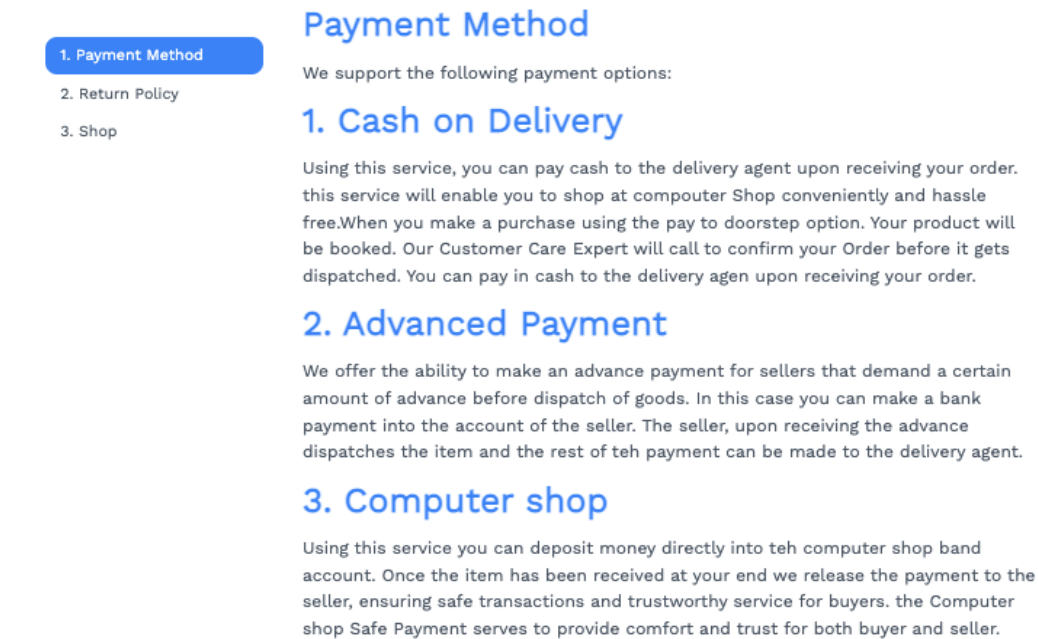
### No Return/Exchange on the following:

TVs, combos and monitors 37" and larger once any of the packaging has been opened.

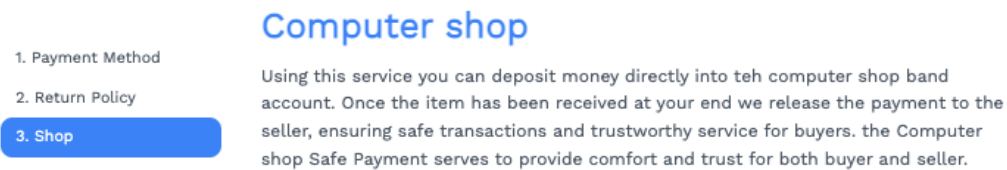
Computers and Computer Software. Once any of the manufacturer's packaging has been opened.

Electronic Software Downloads are not returnable or refundable.

*Figure 4. 7: About Return policy Page*

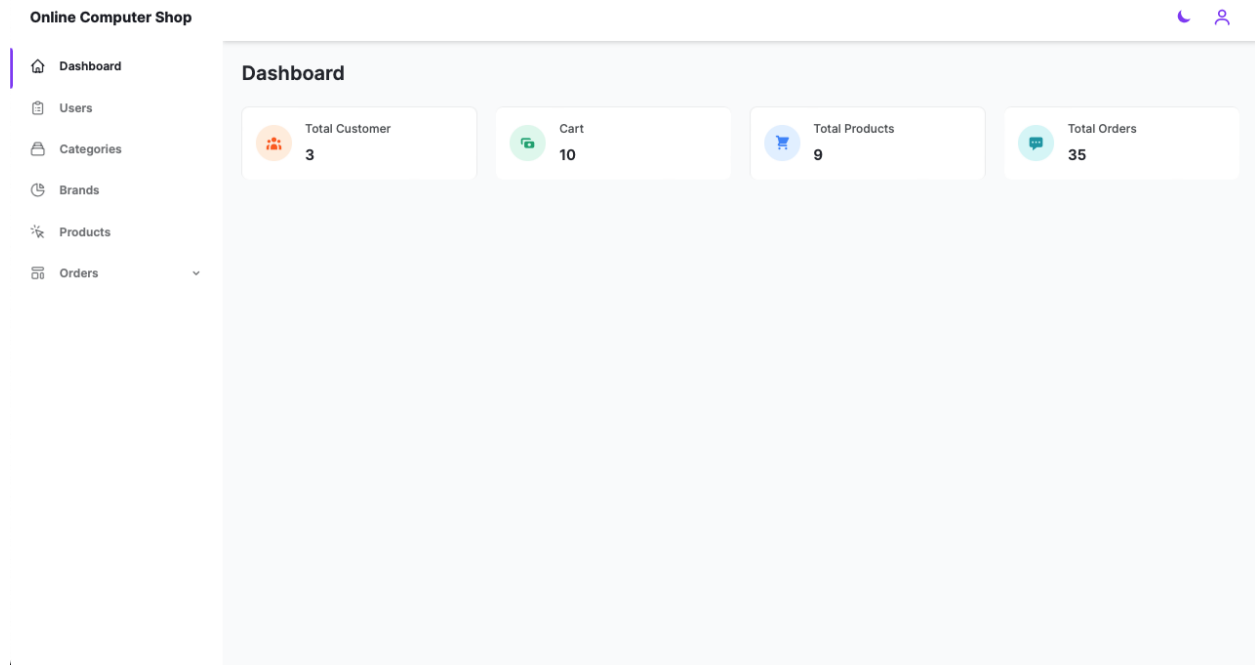


*Figure 4. 8: About Payment Method Page*



*Figure 4. 9: About Shop Page*



*Figure 4. 10: Admin Panel Home Page*

The image shows a 'Users' management table with an 'Add User' button in the top right corner. The table has three columns: 'USER ID', 'USER NAME', and 'USER EMAIL'. It contains two rows of user data, each with edit and delete icons.

USER ID	USER NAME	USER EMAIL
2	User	user@user.com
3	xyz	xyz@xyz.com

*Figure 4. 11: Users Table*

The image shows an 'Add User' form with a 'Go Back' button in the top right corner. The form includes input fields for Name, Email, Phone, and Address, each with a placeholder 'Enter User's Name'. An 'Add User' button is located at the bottom left of the form.

**Add User**

Name  
Enter User's Name

Email  
Enter User's Email

Phone  
Enter User's Name

Address  
Enter User's Name

Add User

*Figure 4. 12: Add new User*

### Update User

Go Back

Name

User

Email

user@user.com

User Type

U

Phone

12345678

Address

Thana bypass

Update User

Figure 4. 13: Edit Existing User Page

### Categories

Add Category







CATEGORY ID	CATEGORY NAME		
1	keyboard		
2	laptop		
3	mouse		

Figure 4. 14: Categories Table

### Add Categories

Go Back

Category\_Name

Enter Category's Name

Add Category

Figure 4. 15: Add new Category Page

### Edit Category

Go Back

Category\_Name

keyboard

Update Category

Figure 4. 16: Edit Existing Category

### Brands

Add Brand







CATEGORY ID	CATEGORY NAME		
1	apple		
2	samsung		
3	dell		

Figure 4. 17: Brands Table

### Add Brand

Go Back

Brand Name

Enter Brand Name

Add Brand

Figure 4. 18: Add New Brand

### Edit Brand





































Go Back

Brand Name

apple

Update Brand

Figure 4. 19: Edit Existing Brand

Products			Add Product
PRODUCT ID	IMAGES	PRODUCT TITLE	
9		Samsung Desktop	  
8		Dell Speakers	  
7		Dell Laptop	  
6		adaf	  
5		adfa	  
4		ajdkflja	  
3		adfadf	  
2		adadfsdf	  
1		adfadf	  

*Figure 4. 20: Products Table*

### Add Product

Go Back

Product Title

Enter Product Title

Category

Select Product Category

Brand

Select Product Brand

Product Description

Enter Product Description

Product Classification

Enter Product Classification

Product Price

Enter Product Price

Image 1

Choose File no file selected

Image 2

Choose File no file selected

Image 3

Choose File no file selected

Image 4

Choose File no file selected

Image 5

Choose File no file selected

Add Product

Figure 4. 21: Add new Product

## Update Product

[Go Back](#)

Product Title

Category

Brand

Product Description

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in

Product Classification

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor

Product Price

Image 1

no file selected

Image 2

no file selected

Image 3

no file selected

Figure 4. 22: Edit Existing Product









IMAGES	PRODUCT_TITLE	USER	QUANTITY	PRICE	
	kjlkjh	ihsan	3	\$66	
	kjalkfdjasl	ihsan	1	\$8728	
	kjalkfdjasl	User	1	\$8728	
	kjlkjh	User	1	\$22	

Figure 4. 23: Admin Cart List

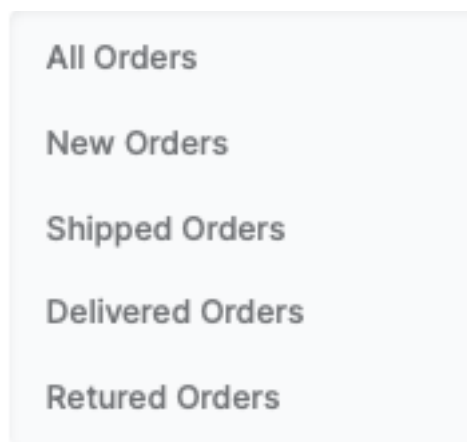


Figure 4. 24: Orders Dropdown








Orders						
IMAGE	NAME	ADDRESS	PAYMENT METHOD	PRODUCT	PRICE	STATUS
	User	Thana bypass	Cash on Delivery	kjalkfdjasl	\$8728	Placed
	User	Thana bypass	Cash on Delivery	kjlkh	\$22	Placed
	User	Thana bypass	Cash on Delivery	kjalkfdjasl	\$26184	Shipped
	User	Thana bypass	Cash on Delivery	kjlkh	\$22	Returned
	User	Thana bypass	Cash on Delivery	kjlkh	\$22	Delivered
	User	Thana bypass	Cash on Delivery	kjlkh	\$22	Placed
	User	Thana bypass	Cash on Delivery	kjalkfdjasl	\$8728	Delivered

Figure 4. 25:All Orders

New Orders







IMAGE	NAME	ADDRESS	PAYMENT METHOD	PRODUCT	QUANITTY	PRICE	STATUS	
	User	Thana bypass	Cash on Delivery	kjlkh	1	\$22	Placed	Ship Order
	User	Thana bypass	Cash on Delivery	kjlkh	1	\$22	Placed	Ship Order
	User	Thana bypass	Cash on Delivery	kjalkfdjasl	1	\$8728	Placed	Ship Order


Figure 4. 26:New Orders List

Shipped Orders								
IMAGE	NAME	ADDRESS	PAYMENT METHOD	PRODUCT	QUANTITY	PRICE	STATUS	
	User	Thana bypass	Cash on Delivery	kjalkfdjasl	3	\$26184	Shipped	
								<a href="#">Deliver Order</a>

*Figure 4. 27:Shipped Orders List*

Delivered Orders							
IMAGE	NAME	ADDRESS	PAYMENT METHOD	PRODUCT	QUANTITY	PRICE	STATUS
	User	Thana bypass	Cash on Delivery	kjalkfdjasl	1	\$8728	Delivered
	User	Thana bypass	Cash on Delivery	kjlkh	1	\$22	Delivered

*Figure 4. 28:Delivered Orders List*

Returned Orders							
IMAGE	NAME	ADDRESS	PAYMENT METHOD	PRODUCT	QUANTITY	PRICE	STATUS
	User	Thana bypass	Cash on Delivery	kjlkh	1	\$22	Returned

*Figure 4. 29: Return Order List*

## 4.6 Summary

In this chapter, we have done the implementation and testing of the given task, also discussed various tools that have been used in the implementation, also take some screenshots of the websites and put it. Discussed also different testing strategies to test and remove the errors from the proposed web application according to the requirements. After that Chapter we will concludes the thesis and puts some future work for new commers in the field.



## **5. Conclusion and Future Work**

The main subject of the thesis was to build an e-commerce website for computer shop that full-fill the demand of the online shopping.

First part of the subject was covered in chapter one that cover the problem statement, aims and objective, outcome and importance of the project. To develop the system practical, we tend to engineer completely different demand and describe them in second part of this thesis. We tend to introduce completely different demand practical demand, quality requirement, user interface demand, logical database requirement and candidate tools that we use in the development method of this web application. The requirements are based on real problems and future work.

The analysis and design part were covered in third part of the subject. The system is represented by means of graphical representation of the system, wherever completely different diagrams were made to represents and model the method of the proposed website. The tools used for the implementation and testing, Screen shots and testing was fulfilled in the fourth chapter of the thesis.

### **5.1 What Has Been Achieved?**

The shop is already existed in a permanent location but if the customer has no time to go to the shop itself and buy the products, so to remove these difficulties we have presence the whole shop into the web. Everyone can buy the products without to go to shop physically, because from everywhere they can access our shop and select to buy the products through World Wide Web. Different payment submission method is available to pay the payment and gain the products successfully without go to shop physically.

### **5.2 Recommendations for Websites Development**

The development of web application may be an advanced method and lots of problems square measure happen throughout the development method. For this web application the method has begun from Problem understanding that is the website for computer shop and finally completing testing of the general system.

To perceive the system, we tend to use totally different use-case to deliver the goods a explicit goal in a simple and a much better method. For analysis and style of the system we tend to construct totally different diagram for better understanding of the system. Diagram's square measure the graphical illustration through that the system will perceive and describe for higher understanding. The diagrams that square measure utilized in this thesis square measure use-case diagrams, activity diagrams, sequence diagram, data flow diagram and entity relationship diagram.

For the event of this web application initial we tend to collect info about the shop and then analyze them in a higher method. We tend to additionally justify and differentiate functional and non-functional demand throughout the system. The tools for implementation of the system square measure categorized in several teams consistent with their uses. We tend to used totally different tools and technique throughout the development process of this web application.

### **5.3 Future Work**

In this trendy age of net and World Wide Web, the role and importance of websites are increases day by dat. Technology becomes advance, new code and tools area unit inventing for web based mostly system that makes the system additional engaging and practical all the time. With the rapid modification in society and our lives, web remains among the foremost important resources of communication for various communities.

A project like this one is never finished. The development of the web development platform can continue, as a result of it is an endless method. As enforced as half of the theses the platform provides practicality for deploying websites. Within the future, the platform may be extending to boost the system that has higher options and services for the community. We have developed a web application system that currently works quite well for fulfilling the requirements of the shop and that we hope it will still give its advantages for some time. Still projects is never complete and each time some advancement and modification are required for the cause of modern technologies, for which we welcome our juniors.

Future work is upon on new requirements, still some options and work to make the e-commerce website simpler. Find the product shortly and purchase it so quickly. Therefore, some future works include sub category and brand, online payment method, buyer protection and secure payments submission.

## **5.4 Summary**

This is the last chapter of our thesis include summary of the system and thesis. What is recommended for web master how they can develop a given website and also discuss some future work of the project that will work for more interested students of computer science department Gulabad Degree College.

## 6. REFERENCES

- [1]. Committee, I.C.S.S.E.S. and I.-S.S. Board, *IEEE recommended practice for software requirements specifications*. Vol. 830. 1998: IEEE.
- [2]. Grant, A. and J.H. Meadows, *Communication technology update and fundamentals*. 2012: Routledge.
- [3]. Kim, E., *User interface design for iOS camera application: project: designing gif video camera application*. 2016.
- [4]. Schwarzer, K., J. Kiefer, and P. Richter, *Cruise Report POSEIDON 489 (POS489), 9th September-24th September 2015*. 2016.
- [5]. Ambler, S., *Agile database techniques: Effective strategies for the agile software developer*. 2012: John Wiley & Sons.