Online E-Commerce Shop

Submitted By

MD. RASEL HOSSAIN
ID: 163432521

MD. PIAS HOSSAIN
ID: 163432563

A project report submitted in partial fulfillment of the requirements for the Degree of Bachelor of Science in Computer Science and Engineering.

Supervised By

Ayesha Siddika
Assistant Professor
Department of CSE
City University

CITY UNIVERSITY
DHAKA, BANGLADESH
JANUARY 2021

Certificate

This is certiffing that the project entitred "Online E-Commerce Shop" which is submitted by Md.Rasel Hossain(ID: 1634521) and Md. Pias Hossain(ID:163432563), in prtial furfilment ofthe requirementfor the award of degree of Bachelor of Engineering in computer science & Engineering to the department of computer Science & Engineering City University, Dhaka comprises only our original work and is an authentic work carried out by him Under my supervision and guidance.

Signature of Author:

Ayesha Siddika
Assistant Professor
Department of CSE
City University

Declaration

I hereby declare that I have been taken this project under the supervision of Ayesha Siddika Assistant Professor Department of CSE City University. I also declare that this project nor any part of this has been submitted anywhere for award of any degree or diploma.

Signature of Author:

MD. RASEL HOSSAIN
ID: 163432521

MD. PIAS HOSSAIN
ID: 163432563

Department of CSE
City University.

Acknowledgements

Firstly, we thanks to our almighty Allah for his blessing makes us possible to complete the final year project successfully.

We are really thankful and grateful to our supervisor Ayesha Siddika , Assistant Professor Department of CSE,City University. Deep Knowledge & keen interest of our supervisor in the field of Software to carry out his project. Her endless patience, guidance, encouragement, energetic supervision, valuable advice, reading many inferior draft and correcting them at all stage have made it possible to complete this project.

We would also like to express my heartiest gratitude to Supervisor, Coordination, Dean and Head of CSE for kind help to finish project and also other faculty member and staff of CSE,department of City University.

Finally We must acknowledge with due respect the constant support and patients of our parents.

Abstract

In this project we build a e-commerce site which tittle is “Online E-Commerce Shop”. Sell goods and service online the main goal of this project. This e-commerce site has a lot features for customer. The system is implemented using a 3-tier approach, first tier approach is front end (such as HTML,CSS), a middle tier is Object oriented Language (such as PHP) and last is relational databases (such as MySQL).Overalll The system is developed using HTML, CSS(Bootstrap), JavaScrip(Jqueiry), PHP(laravel) and MySQL. It basically helps Customers who want to buy their necessary products in a user-friendly. In our system there are two types of user, first Admin and second Customer. Admin can add products, edit product information, delete products, approve and cancel the order, monitor the whole system. And Customer can simply visit the system, choosing products from any category, register for order, loginto their accounts ,add to cart their order, edit their order list before order confirmation. Customers can also search any products and place orders anytime, anywhere from any location in Bangladesh.Our system provides a friendly interface to the customers and reduce the complexity of human life. This online E-commerce shop may be a complete solution for those people get uncomfortable to go on a crowded place.

Contents

List of Figures

List Of Tables

Chapter 1

Introduction

1.1 Overview

The project is online e-commerce shop which is a web-based digital shopping system. This system is designed for buy shopping easily .The project is developed by the most popular programming language PHP framework Laravel. The simple interface helps customer to manage this site easily.

1.2 Motivation

Nowadays in our country Online shopping business increasing rapidly . During the COVID-19 pandemic situation online business rapidly increasing day by day. This situation most of the people don't want to go to market for buy their products. During the research of the target audience, very few or any team is emphasizing the motivations behind to develop the online e-commerce shop . So, we've taken the challenge to create a e-commerce site.

1.3 Objectives

The main objective behind this project is to develop a web which can provide an online shopping feature to the users. This project aimed at creating a virtual shop. Although the idea of developing online shopping websites are not new. The objective of this project is to develop a general purpose e-commerce store where any product (such as mobile pgone, computer, laptop, television, cosmetics items, books, electronic items, and home appliances) can be buy home through lnternet.

There are several objectives of the project. They are as follows:

- Customers can browse the catalog and select products of interest Also user can easily find their product.
- User can registration login into ecommerce website, once he logged in then automatically one shopping cart will be create once user select an item for buy it will add to that cart.
- In case user thinks the selected item is not useful for him, then he can delete that item form the cart.
- If customer want to buy item. Usually, the customer will beasked to fill or select a billing address, a shipping address, a shipping option, and select payment option.

1.4 Problem Statement

Now a days, all people are busy and and going smarter day by day. In a developing country, online helps us lot, but we are developed and need to grow with online systems. Busy and smart life going to be easier So, to reduce the work, and saving the time, online

system is most used platform now a days to do anything, to order any product items, from anywhere. There is no need to wait . It's flexible.Go to the website,Order product your ordered items are waiting in front of your door.

1.5 The Purpose

All work done at same time means time efficiency, reduce work. The main purpose of e-commerce online site for sell produts to customer .In our system ordered many items at a time, delivery home. This e-commerce site is to save time. A customer can save valuable time of shopping. Our project is fully completed auto system that is not only saves our valuable time and also give the user satisfaction.

1.6 Report Outline

- Chapter 2 contains Literature review In this chapter we will discuss about Background Study and Proposed system, the similar project , related work , proposed system , prosposed systems benefits.
- Chapter 3 contains Methodology . In this chapter we will discuss SDLC and Methodology which is used in this project and Feasibility study.
- Chapter 4 contains Requirements analysis. We will discuss all types of requirements of this system and all the tools which is used in this project.
- Chapter 5 contains Analysis In this chapter we will discuss all types of diagram (such as DFD , Use case , activity , sequence ,class diagram), Risk analysis, gantt chart etc.
- Chapter 6 contains Design And Implementation. We will discuss our project design and implemation result.
- Chapter 7 contains Testing And Evaluation. We will dicuss Software Verification and Validation, Test plan , system maintenance etc.
- Chapter 8 contains Future work and conclusion. We will discuss Goal, Limitations, Future Work and Plan, Conclusion.

Chapter 2

Literature Review

2.1 Background Study

In this modern days people are now dependent on online. People buy their shopping product items like; laptop, camera, mobile, television via online. Online shopping is now a very common daily life routine in developed countries. In Bangladesh the growth rate of e-commerce 72% per month. From the year 2012 Bangladesh evolve in E-commerce industry . In Bangladesh 2016 $50 million was invested in the e-commerce sector.The e-Commerce Association of Bangladesh (e-CAB) founded that the outreach of the e-commerce business market exceeded to 17 billion TK in 2017 from 4 billion TK in 2016. By 2021 it is expected that the e-commerce market value will exceed to 70 billion TK([1]).

2.2 Related Work

2.2.1 Daraz.com.bd

Daraz is a very well-known website where people can find their every need items. But there is a condition that they save users information data. Website provide high quality pictures and description, but review negative from the user.

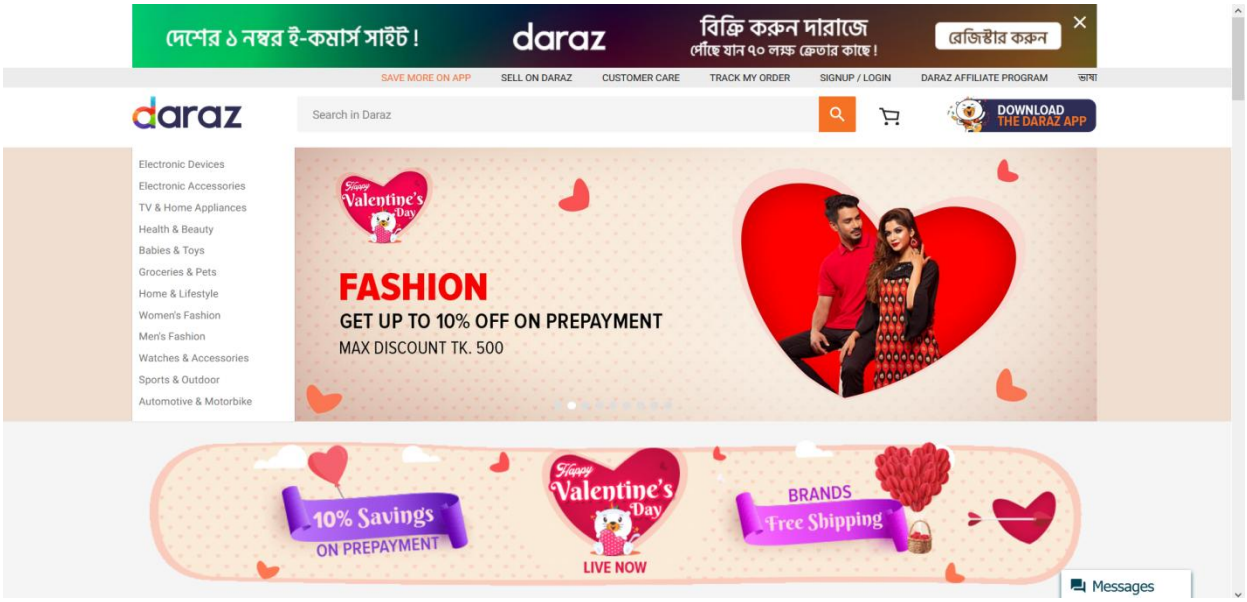


Figure 1: Home page daraz.com.bd

2.2.2 Evaly.com.bd

Bangladesh most controversial website is evaly.com.bd . They offer big discount on electronics items. But most negative review from this user.

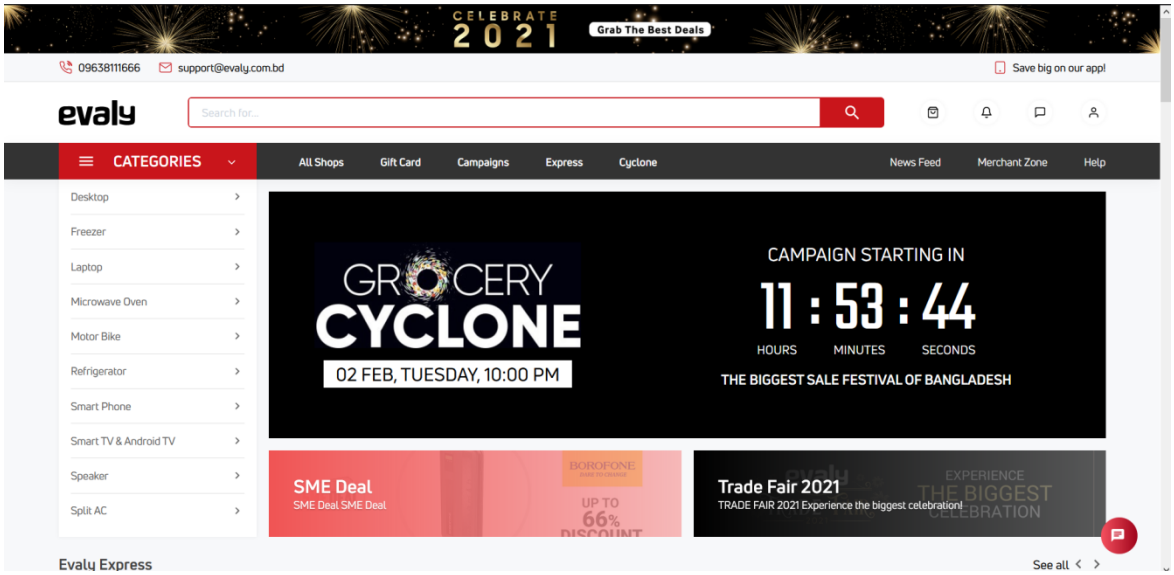


Figure 2: Home page of evaly.com.bd

2.2.3 Picaboo.com.bd

Pickaboo is a Bangladeshi web-based business which brand offspring of Silver Water Technologies Bangladesh Limited. The business began on May 15, 2016, It is selling a wide scope of electronic and way of life items, for example, mobiles and tablets, work areas and workstations, home and kitchen machines, devices, attire, cosmetics, skincare, and embellishments.

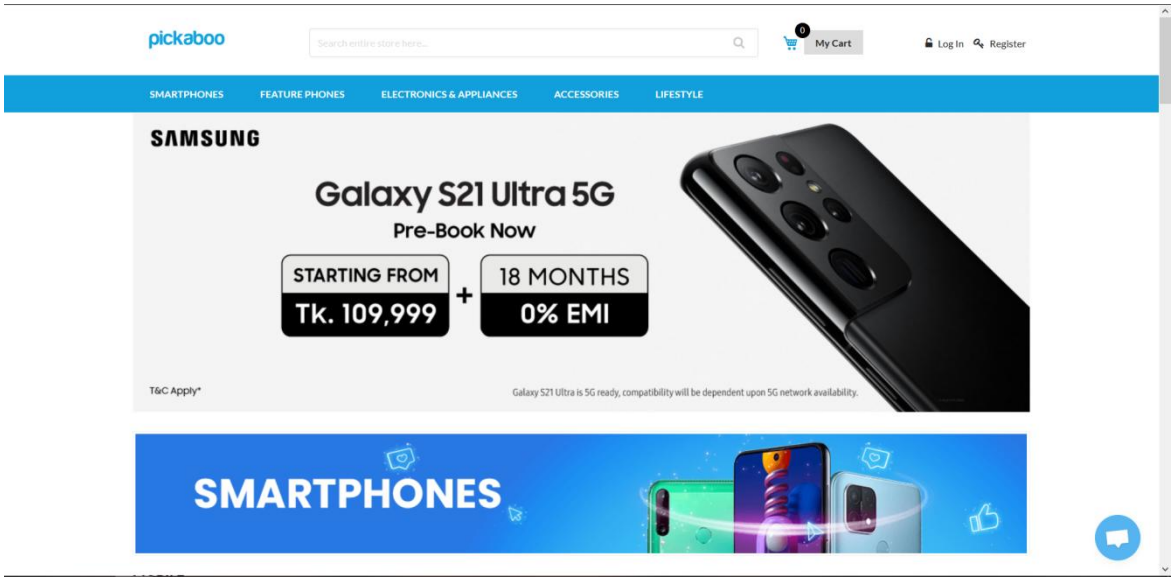


Figure 3: Home page of picaboo.com.bd

2.3 Proposed System

Proposed System helps in building a website to buy products online using internet connection. The basic concept of the website is to allow the customer to shop virtually using the Intemet and allow customers to buy the items of their desire ftom the store. In this proposed system customers need not to go to the shops for purchasing the products.

1. Quick and Easy to use
2. User Friendly Navigation
3. Registration & Login
4. User Account
5. Search Product
6. Add to cart
7. User Ratings
8. Admin Control Panel

2.3.1 Proposed systems benefits

The main advantage of this system user can browse online shops,compare prices and order products from at home on their PC or mobile. Safe and secure registration and profile update management facilities for customers. Shopping cart features allows customers to order items in the cart. It decreases the cost of creating, processing, distributing, storing and retrieving paper-based information.And Its save our valuable time.

Chapter 3

Methodology

3.1 Software Process Model

3.1.1 The Systems Development Life Cycle (SDLC)

It is a conceptual model used in project management that describes the stages involved in an information system development project from an initial feasibility study through maintenance of the completed system. Various SDLC methodologies have been developed to guide the processes involved including the waterfall model (the original SDLC method) [2]. Sometimes work better for specific types of projects, but in the final analysis, the most important factor for the success of a project may be how closely particular plan was followed [3].A Software Development Life Cycle is essentially a series of steps, or phases, that provide a model for the development and lifecycle management of an application or piece of software. The Software Development Life Cycle is a process that ensures good software is built. Each phase in the life cycle has its own process and deliverables that feed into the next phase. Phases are given bellow: Requirements Gathering and Analysis , Design , Coding , Testing and Maintenance.

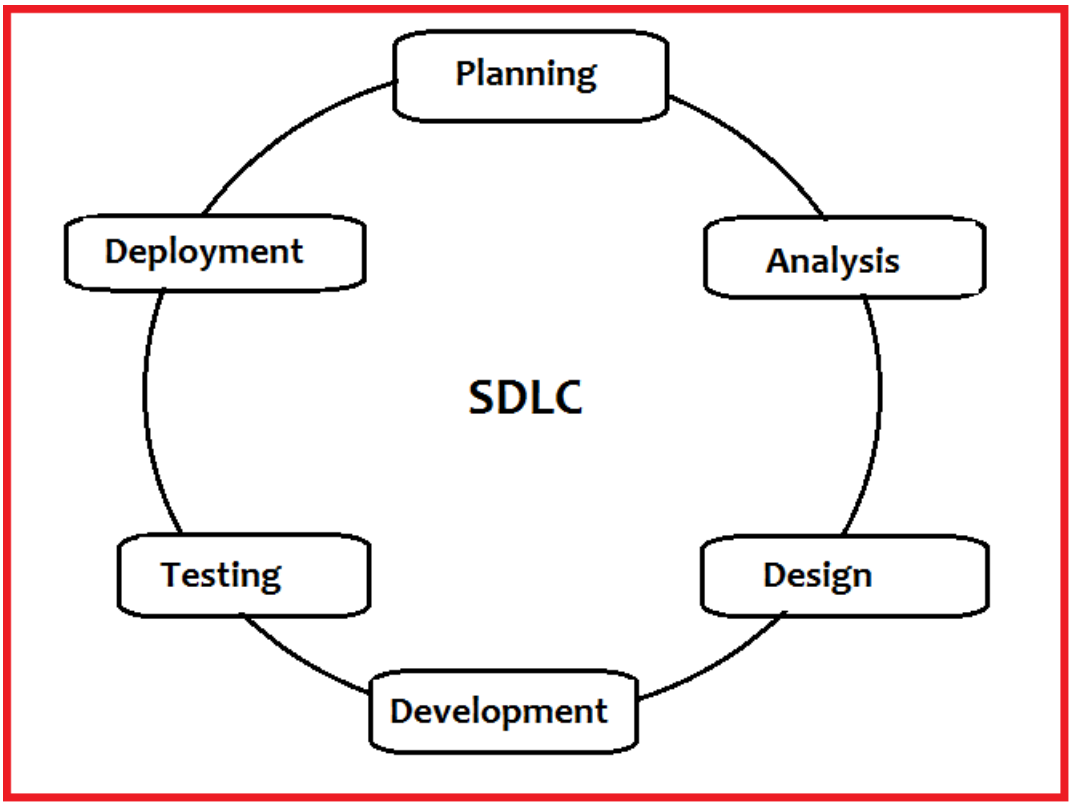


Figure 4: SDLC

SDLC Models are:-

- Water Fall Model
- The Prototyping model / Evolutionary development
- Spiral Model
- The Incremental model
- Agile Model

3.1.2 Why following a model?

- Without using of a particular life cycle model the development of software product would not be in a systematic and disciplined manner.
- When a software product is being developed by a team there must be a clear understanding among team members about what to do and when to do.
- Not following: confusion and project failure.

3.2 Methodology

3.2.1 Waterfall model

Here using waterfall model for this project.

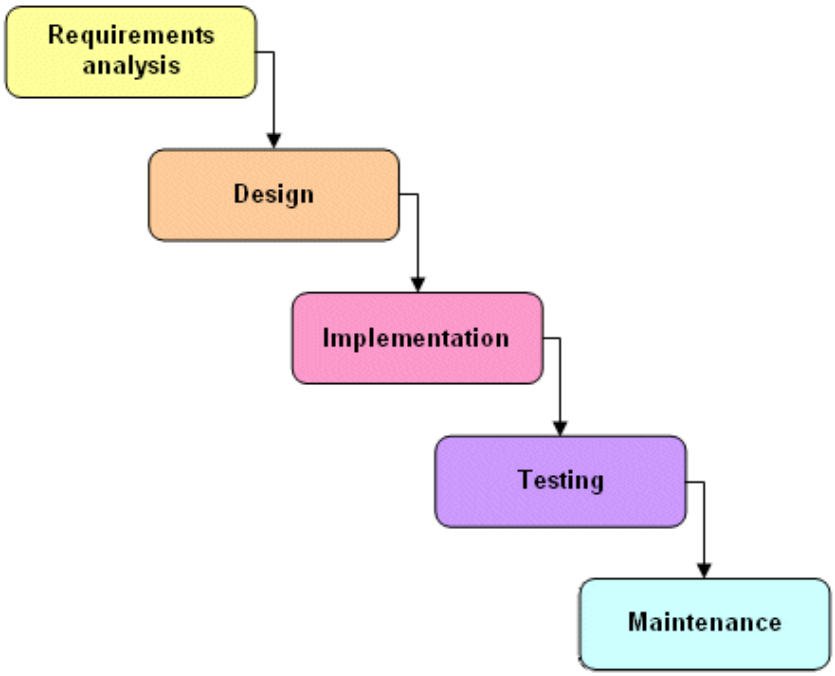


Figure 5: Waterfall Model

3.2.2 Advantages

- ✓ Easy to understand and implement.
- ✓ Before the next phase of development, each phase must be completed.
- ✓ Suited for smaller projects where requirements are well defined.
- ✓ Elaborate documentation is done at every phase of the software's development cycle.
- ✓ Linear model.
- ✓ Identifies deliverables and milestones.

3.2.3 Why choose WATERFALL model?

- o For following reason we used this model
- o My requirements are very well known clear and fixed.
- o Product definition is stable.
- o Technology is understood [2].
- o There are no ambiguous requirements.
- o Ample resources with required expertise are available freely.
- o The project is not so long.

3.3 Feasibility study

The software is said to have life cycle composed of several phases. At the feasibility stage, it is desirable that two or three different configuration will be pursed that satisfy the key technical requirement but which represent different level of ambition and cost. Feasibility is the determination of whether or not a project is worth doing. A feasibility study is carried out select system that mate performance requirements.Four tests for feasibility study are as follows:

3.3.1 Technical Feasibility

This is concerned with specifying equipment and software thar will successfully considerably, but might include

- The feasibility to produce output in a given time because system is fast enough to handle multiple users.
- Response time under certain circumstances and abiliry to process a certain volume of transaction ofa particular speed.
- Feasibility to communicate data to distant location.

All this are successfully fulfil this project.

3.3.2 Economic Feasibility

Economically this system is feasible.

3.3.3 Operational Feasibility

It is mainly related to human organizational as social aspects. The paints be considered are - this system interface is standard, user friendly and provides extensive help.Hence no special training is not required.

3.3.4 Social Feasibility

Social feasibility is determination of whether a proposed project will be acceptable to people or not, so this project is totally Social and Feasible.

Chapter 4

Requirements Analysis

4.1 User Requirement

End user features that facilitate the enjoyment of Internet shopping include the following [4]:

- Users should be able to use the e-commerce application from any Web browser supportingHTML 3.2 (or later) and cookies.
- Visitors new to the site should be able to register by themselves. Users will be differentiated by unique user identifiers.
- Users should be able to view a complete list of specified items available through the site.
- Users should be able to search for items by related attributes.
- Site visitors should be able to search the database using relevant keywords to identify items of interest.! Users should be able to select items of interest and add them to their shopping carts for future purchase.
- Visitors should be able to modify the quantities of item's in and/or delete items from their shopping carts before checkout.I
- All selected item's should be shipped to the user following purchase.
- Users should be able to view the status of items they have ordered.

4.2 Administrator Requirements

Administrators who manage the site have specific requirements of their own [4]

- Administrators should be able to manage e-commerce applications using web browsers.
- Data managers should be able to delete users.
- Site administrators should be able to change the status of goods purchased by users after items have been shipped.
- Administrators should be able to view all user transactions.
- Site managers should bc able to view all transactions for the day.

4.3 System Requirements

This is the overall process of making the Online Shopping system worked, and user can get the policy without any headache of agent and sometime don not need to provide commission to them.

4.3.1 Functional requirement

The System must provide following functionalities [4]

- ⇒ Keeping customers registration record.
- ⇒ Keeping the records of products.
- ⇒ Keeping the daily sell information.
- ⇒ Keeping details about the product it is delivered or not etc.
- ⇒ Storing the items selected by the customer in the temporary storage/Wish list.
- ⇒ Full control of admin panel will be in admin hand.

4.3.2 Non- Functional Requirement

Following Non-functional requirements will be there in the assurance on internet [4]:

- > Secure access of confidential data (customer's details).
- > 24x7 availability.
- > Better component design to get better performance at peak time.
- > Flexible service based architecture will be highly desirable for future extension.
- > Nonfunctional requirements define systems properties.

Various other Non-frictional requirements are [5,6]:

- Security
- Reliability
- Maintainability
- Portability
- Extensibility
- Reusability
- Application Affinity/Compatibility
- Resource Utilization

4.3.3 Software requirement

- o Editor: VS code

- Front-End: Web Pages using HTML , CSS(Bootstrap) and JavaScript(jquery)
- Programming Language: PHP
- Framework: Laravel
- Back-End Database: MySQL
- Server: XAMPP(Apache)

4.3.4 Hardware requirement

- ✓ Minimum Pentium-IV(Processor).
- ✓ 256 MB Ram
- ✓ 512 KB Cache Memory
- ✓ Hard disk 10 GB
- ✓ Microsoft Compatible 101 or more Key Board
- ✓ Minimum limit for this system

Chapter 5

Analysis

5.1 Data Flow Diagram

DFD Level 0

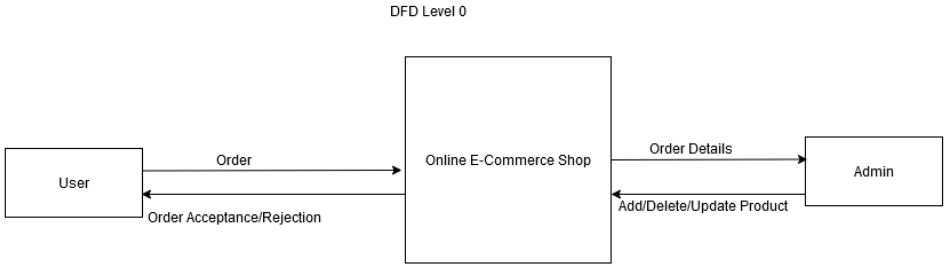


Figure 6: DFD Level 0

DFD Level 1 for

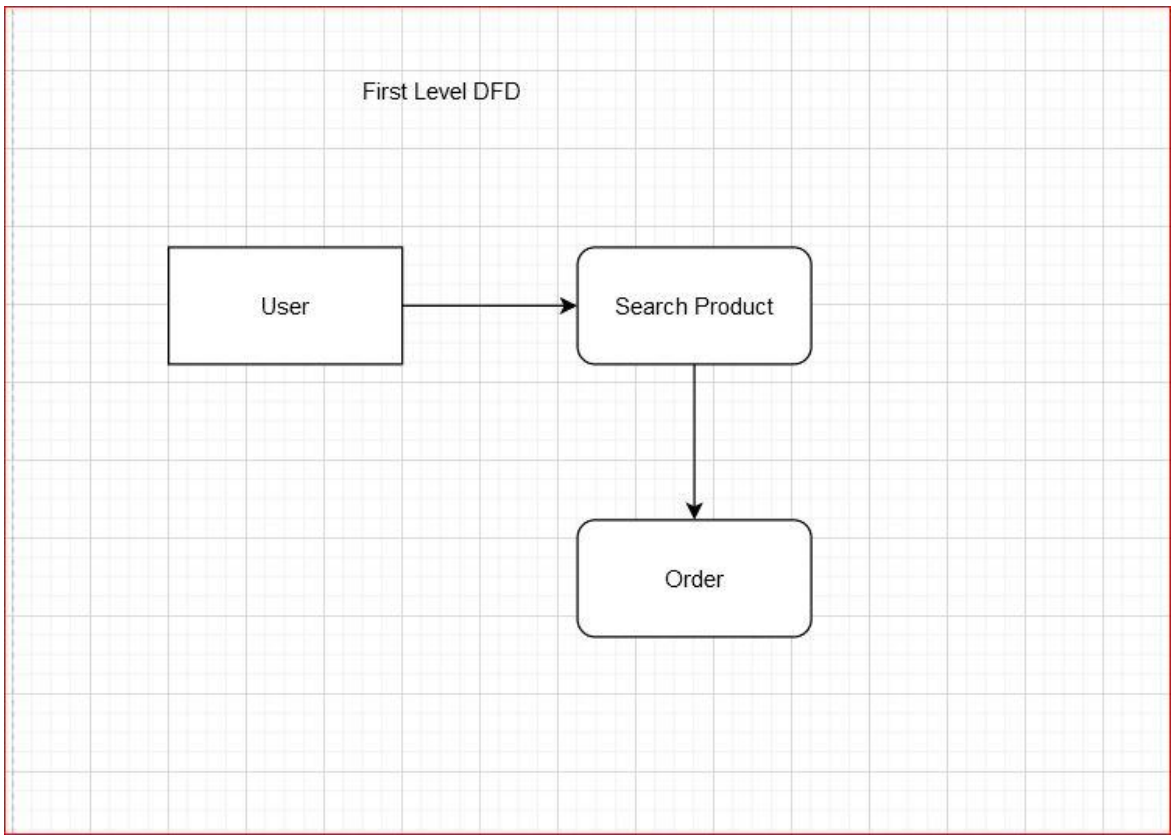


Figure 7: DFD Level 1

DFD Level 2

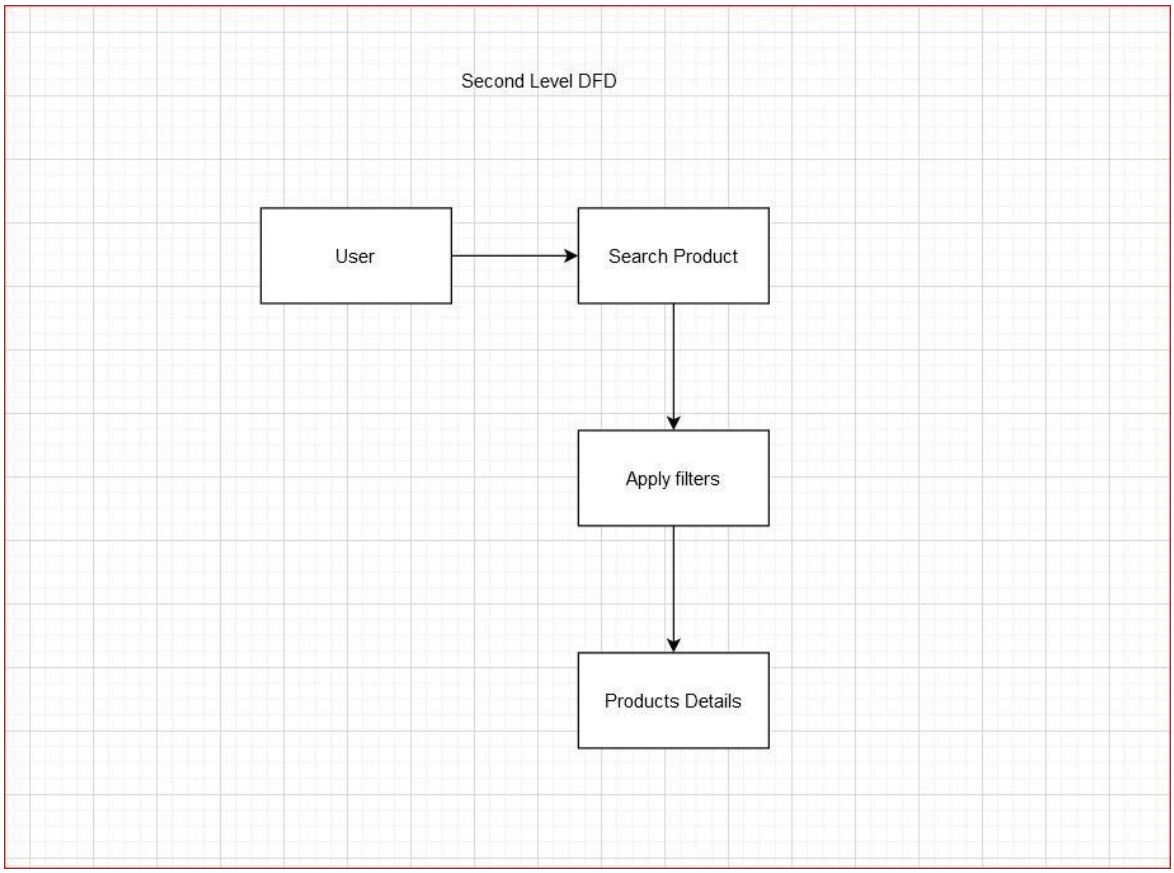


Figure 8: DFD Level 2

DFD Level 2.1

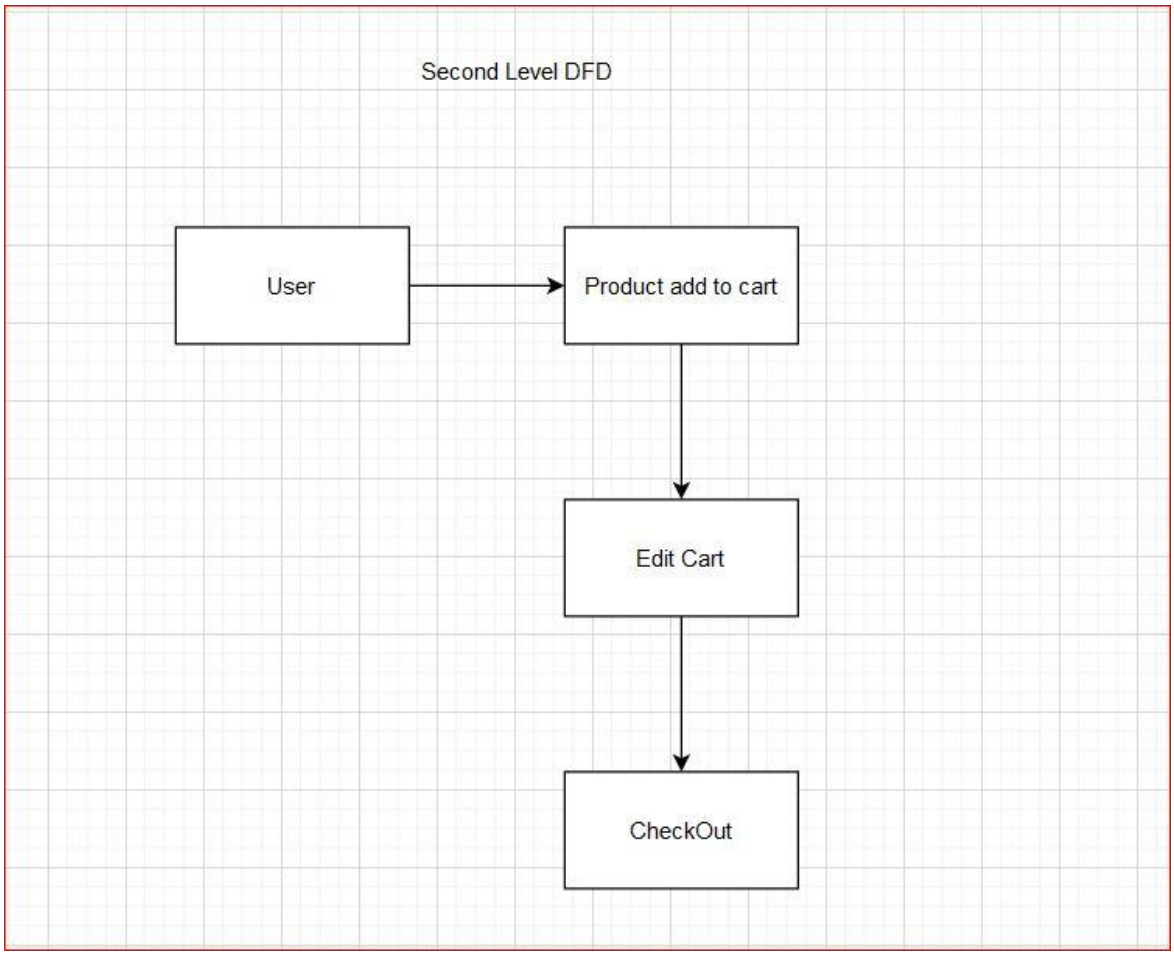


Figure 9: DFD Level 2.1

5.2 Use Case Diagram

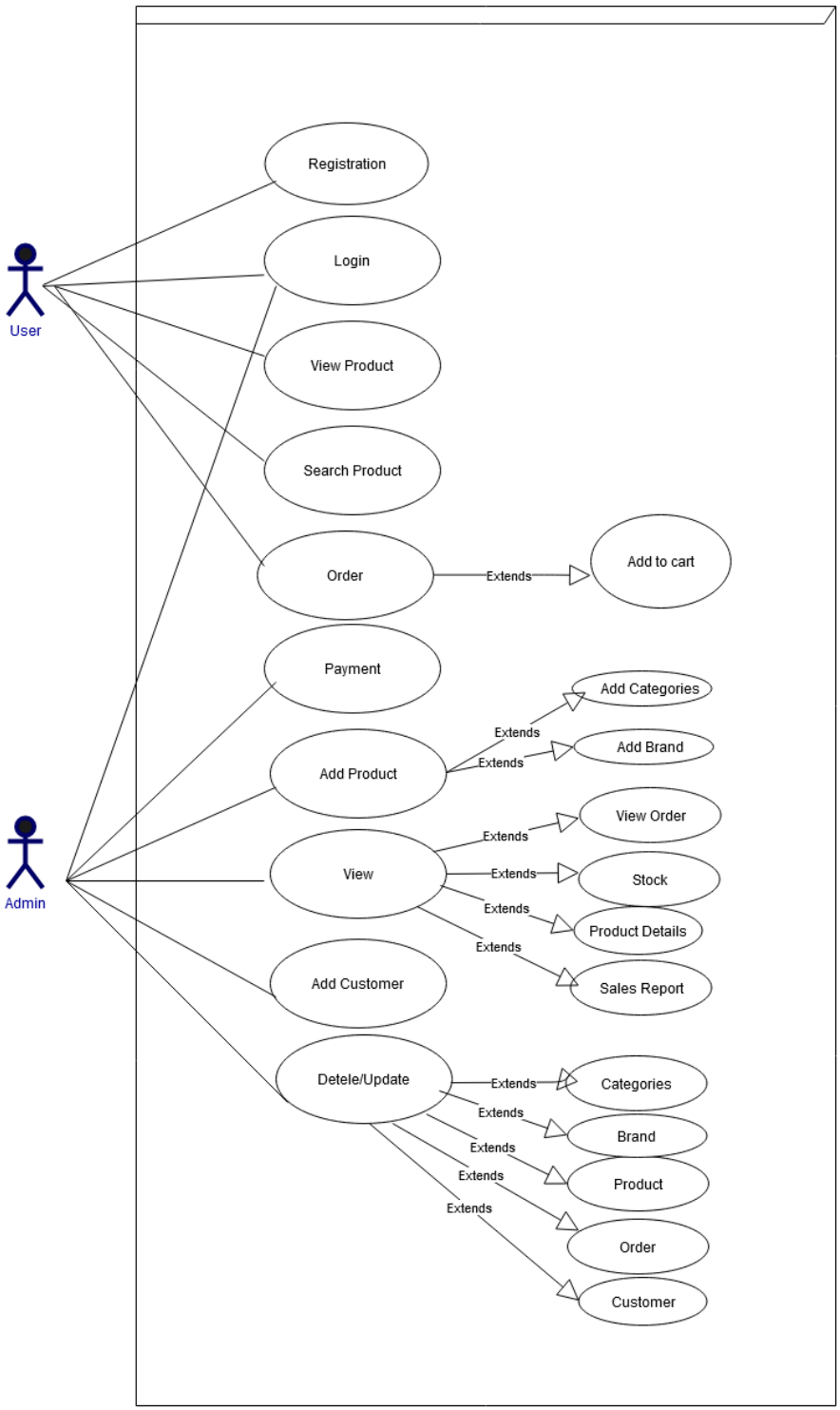


Figure 10: Use Case Diagram for E-Commerce Shop

Use case diagram for User

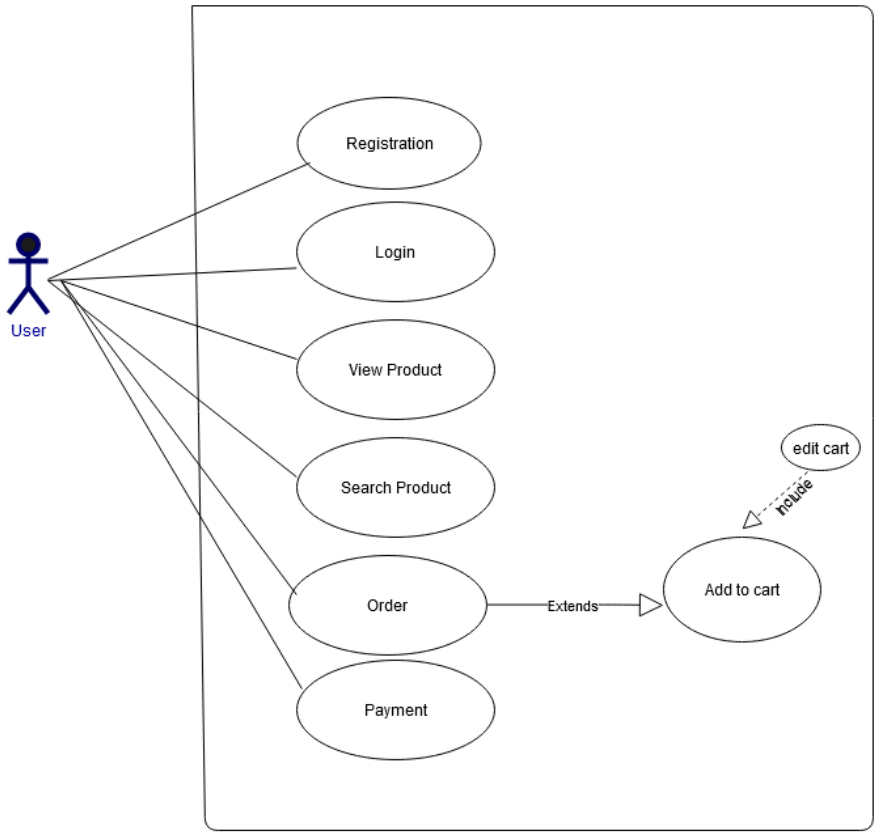
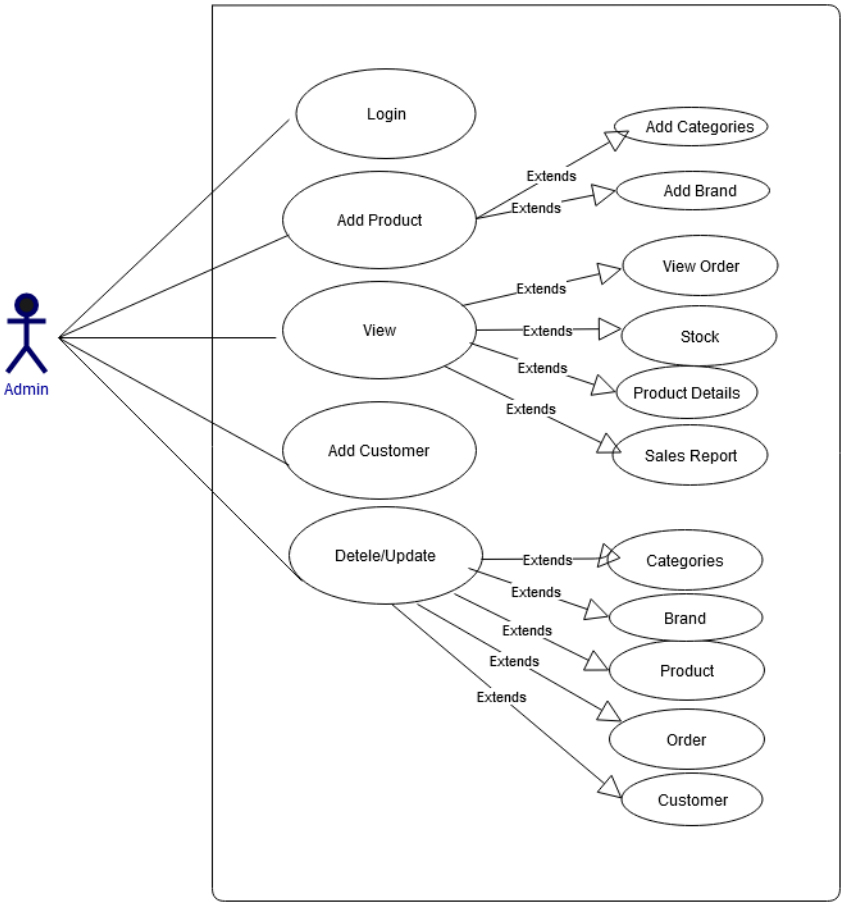


Figure 11: User use case diagram

Admin Use Case Diagram



t

Figure 12: Admin use case diagram

5.3 Activity Diagram

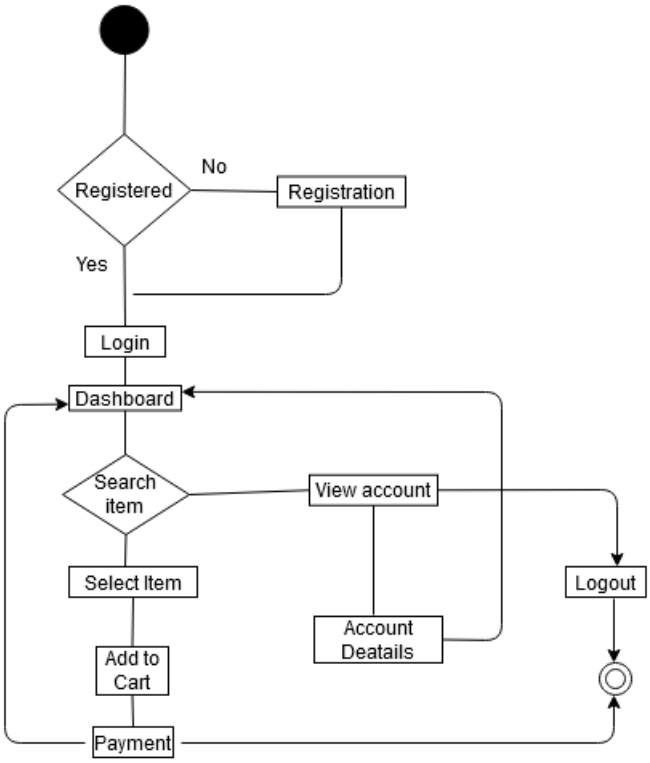


Figure 13: Activity diagram

5.4 Sequence Diagram

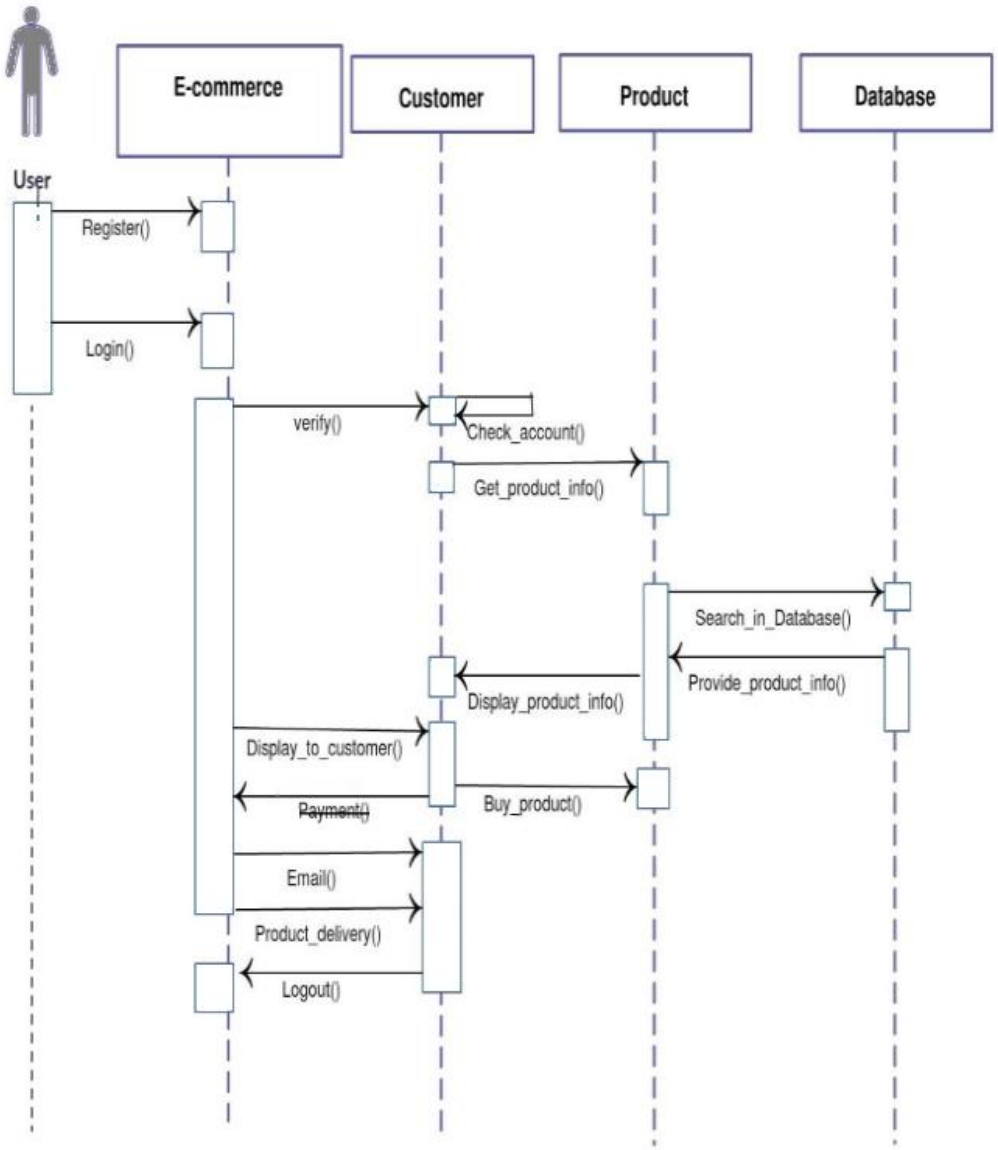


Figure 14: Sequence Diagram

5.5 Entity Relationship Diagram

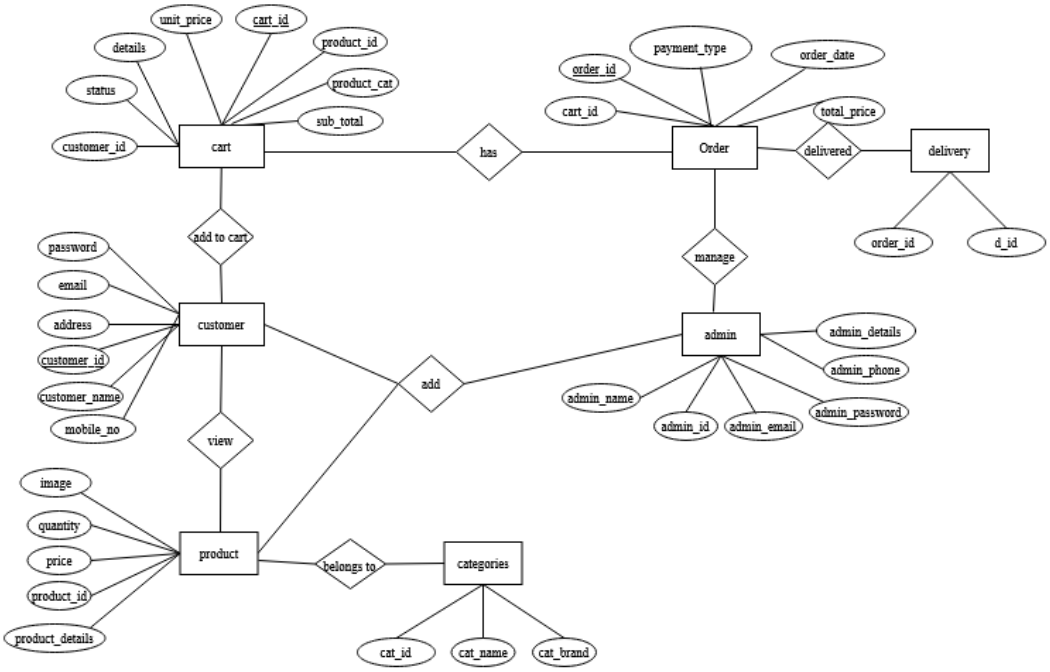


Figure 15: ER Diagram

5.6 Deployment Diagram

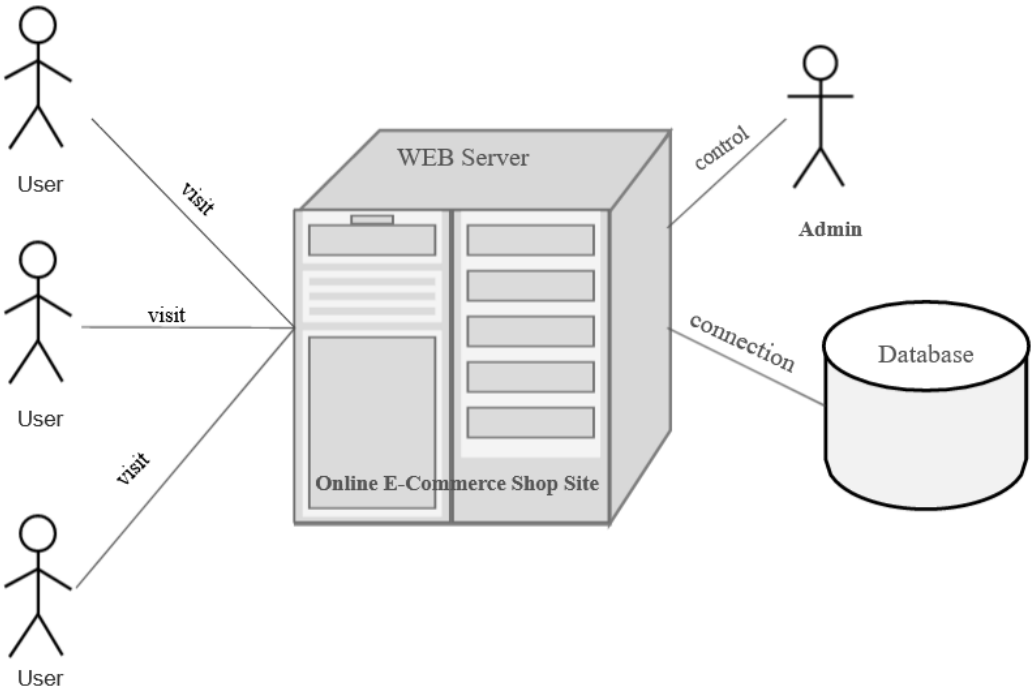


Figure 16: Deployment diagram

5.7. Risk Analysis

5.7.1 Type of Risk

There are several kinds of risks that should be considered in any software project. The following

categories of risks had considered in this software project:

5.7.1.1 Software Risk

These risks can hamper our project plan. If these risks become real, it is likely that the project schedule will slip and that costs will increase. Project risks identify potential budgetary, schedule,personnel, resource, customer and requirement problems and then impact on the software project.

5.7.1.2 Technological Risk

These risks threaten the quality and timeliness of the software to be produced. Ifa technical risk becomes a reality, implementation may become difficult or impossible. Technical risks identify potential design, implementation, interface, verification and maintenance problems.

5.7.1.3 Business Risk

These risks threaten the viability of the software to be built. The business risks can be -

- Market risks: Building a system that no one really wants
- Strategic risks: Building a system that no longer fits into the overall business strategy for the company Building a system whose business needs have been changed.
- Management risks: Losing the support of senior management due to a change in focus or change in people
- Budget risks: Losing budgetary or personal communication.

5.7.2 Risk Identification

Risk identification is a step by step process to specify risks to the project plan. By identifying known and predictable risks, it is possible to avoid or mitigate the identified risks.The identified risks of different categories of this software project are given below:!

- ✓ Size estimate may be significantly low.
- ✓ Larger number of user than planned.
- ✓ Unavailability of the development software.
- ✓ Unavailability of the required hardware.
- ✓ Delivery deadline will be tightened.
- ✓ Customer will change the requirement [8].
- ✓ Technology will not meet the expectation.
- ✓ Stuff inexperience.
- ✓ Users resist the new system.

5.7.3 Risk Projection

Risk projection attempts can happen in two ways -Likelihood or Probability. That the risk is real and the consequences of the problems associated with the risk.The risk projection is also known as risk estimation. Four risk projection activities have been performed to measure the risks in this project [8]. They are:

- ⇒ establish a scale that reflects the perceived likelihood of a risky.
- ⇒ define the consequences of the risks.
- ⇒ estimate the impact of the risk on the project and the product/

⇒ note the overall accuracy of the risk projection

Following Table 0l shows the risk projection

Table 1: Risk Projection

• Technology	No Internet Connection	1
	The database used in the system cannot process as many transactions per second as expected	2
• People	It is impossible to hire staff with the skills required.	3
	Key staffs are ill and unavailable at critical times.	4
	Required training for staffis not available	5
• Tool	The code generated by software code genoation tools is in efficient.	6
	Software tools cannot work together in an integrated way	7
• Requirement	Changes to requirements that require major design rework are proposed.	8
	Customers fail to understand the impact of requirements changes.	9

5.7.4 Risk Analysis

Following Table 02 Analysis the risks of this project.

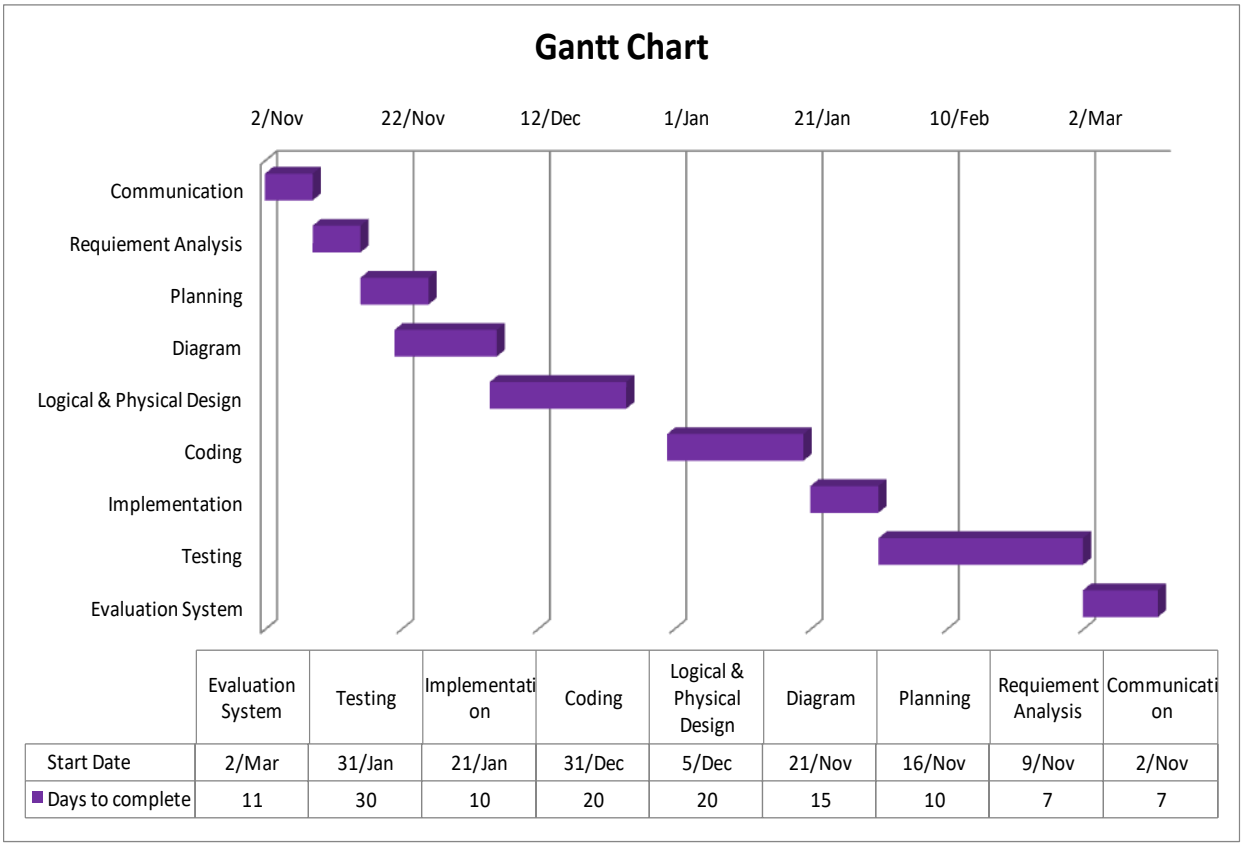
Table 2: Risk Analysis

Risk	Probability	Effects
1) No Internet Connection.	Moderate	Serious
2) The database used in the system cannot process	Moderate	Serious

as many transactions per second as expected		
3) It is impossible to hire staffwith the skills required.	Moderate	Catastrophic
4) Key staffs are ill and unavailable at critical times.	Moderate	Serious
5) Required training for staffis not available	Moderate	Tolerable
6) The code generated by software code genoation tools is in efficient.	Moderate	Tolerable
7) Software tools cannot work together in an integrated way	Moderate	Insiguilicaru
8) Changes to requirements that require major design rework are proposed.	Moderate	Serious
9) Customers fail to understand the impact of requirements changes.	Moderate	Tolerable

5.8 Project Scheduling

Following Figure shows the Schedule of this project. How much time it take to complete. It also shows which part take how much time for completing this project.



	Evaluation System	Testing	Implementation	Coding	Logical & Physical Design	Diagram	Planning	Requiement Analysis	Communication
Start Date	2/Mar	31/Jan	21/Jan	31/Dec	5/Dec	21/Nov	16/Nov	9/Nov	2/Nov
Days to complete	11	30	10	20	20	15	10	7	7

Figure 17: Gantt Chart

Chapter 6

Design and Implementation

6.1 Project Design

The project Conceptual design divided into two model, The data model and the process model. The data model focuses on what data should be stored id the database while process model deals with how the data is processed. To put this in the context of the relational database, the data model is used to design the relational tables [9].The process model is used to design the queries that will access and perform operations on those tables.

6.1.1 Data Model

A data model is a conceptual representation of the data structures that are required by a database.The first step in designing a database is to develop an Entity Relation Diagram [10].The ER serves as a blue print from which a relational database maybe deduced. Figure below shows the ER diagram from the project database.

6.1.1.1 Entity Relationship Diagram

Now we will discuss the whole ER-diagram to make better understanding. Here we have different Entities such as Order, Customer, Product, Payment, Cart, Brand let looks one by one which is as follow. It shows all the relationship of this system database. Entity has 3 types of relationship

1. one to one
2. one to many
3. one is many[9,10].

6.1.2 Process Model

A Process Model tells us about how the data is processed and how the data flows from one table to another to gather the required information. This model consists off Functional Decomposition Diagram and Data Flow Diagram.

6.2 Database Design

In this section, the basic structure of the tables composing the database for the project are shown along with information about primary and foreign keys.

Database Name:

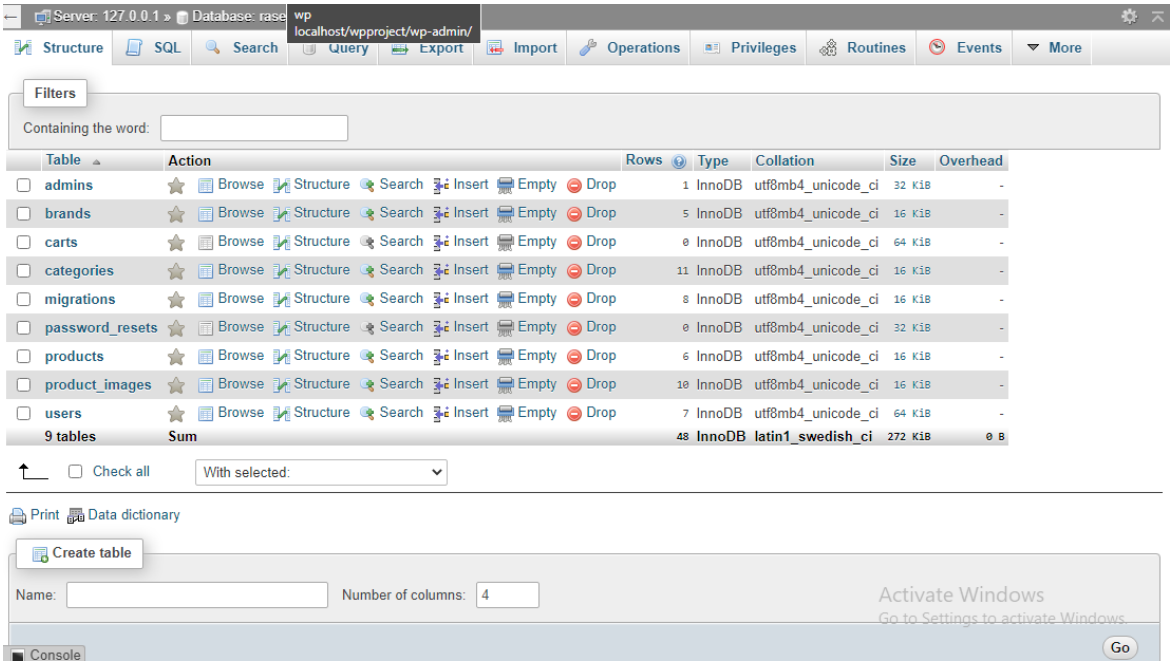


Figure 18: Database

6.3 Database Field Design

6.3.1 Product table

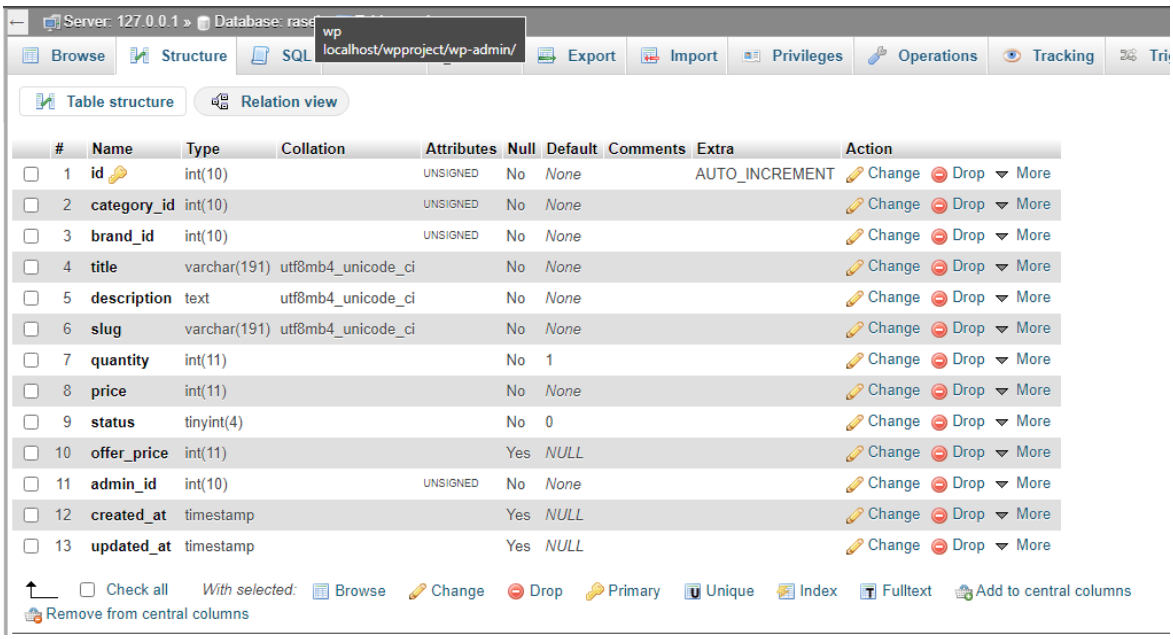


Figure 19: Product Table

6.3.2 Cart table

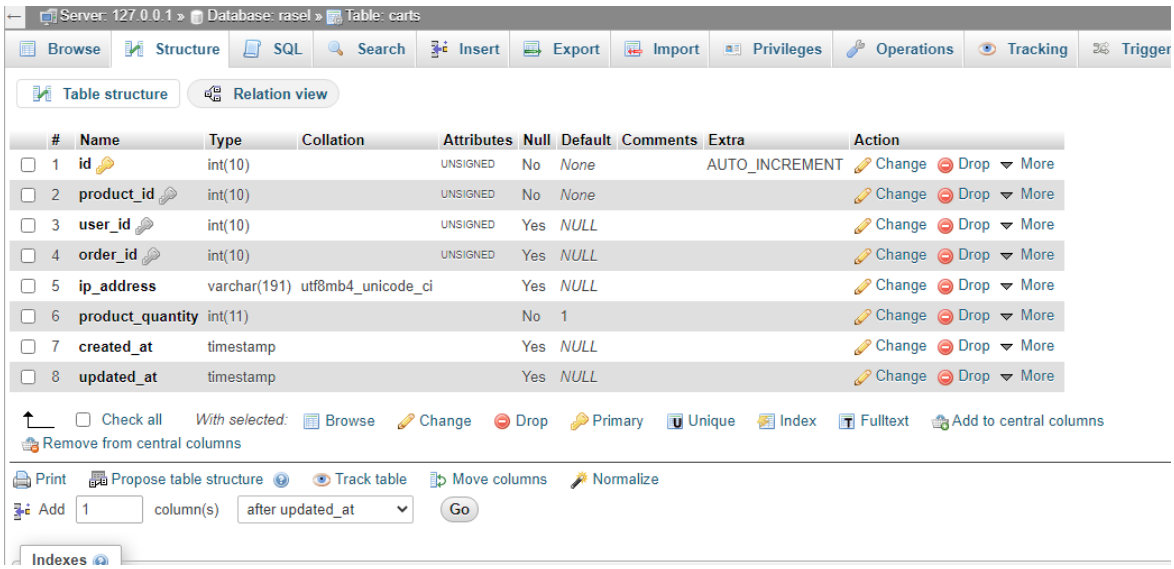


Figure 20: Cart Table

6.3.3 Customer table

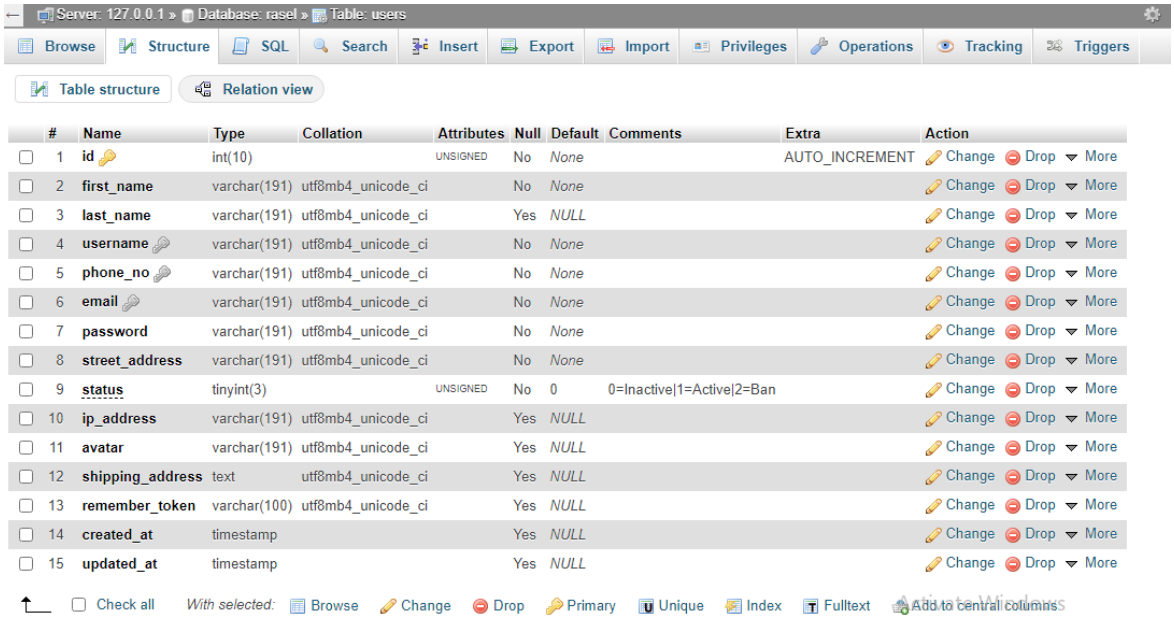


Figure 21: Customer Table

6.4 Modules of System

This project is divided into 9 modules:

- ✓ Registration Module
- ✓ Products Browse Module

- ✓ Products Search Module
- ✓ Shopping cart Module
- ✓ Shipping & Billing Module
- ✓ Payment Module
- ✓ User Management Module
- ✓ Admin Catalog Management Module
- ✓ Admin Order Management Module

6.5 Interface Design implementation

This is one of the main task of the developer implement to design a graphical user interface that user attraction and can use easily, in one word it should be user friendly. For completing this project we have used HTML,CSS,JS, PHP and MySQL. So for this we should have better understanding of customers likes and dislikes and the features that are in trend, initially we need to locate the targeting people that what kind they need. After getting all this information we should start to design the application. After checking all the information than design this project interface.

Screen shot of this project.

6.5.1 Homepage

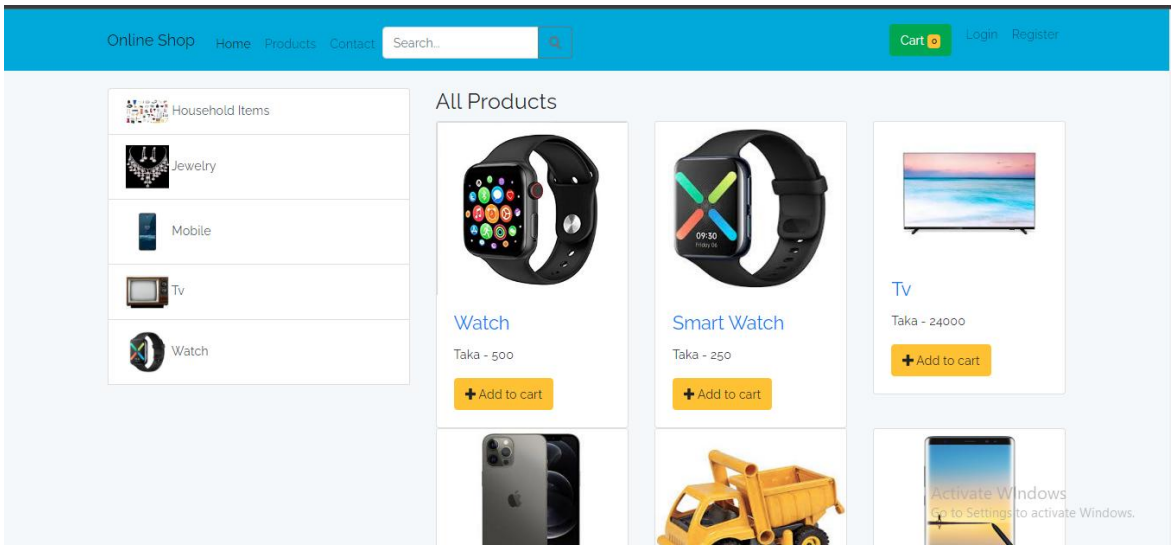


Figure 22: Hompage

6.5.2 Customer Registration and Login page

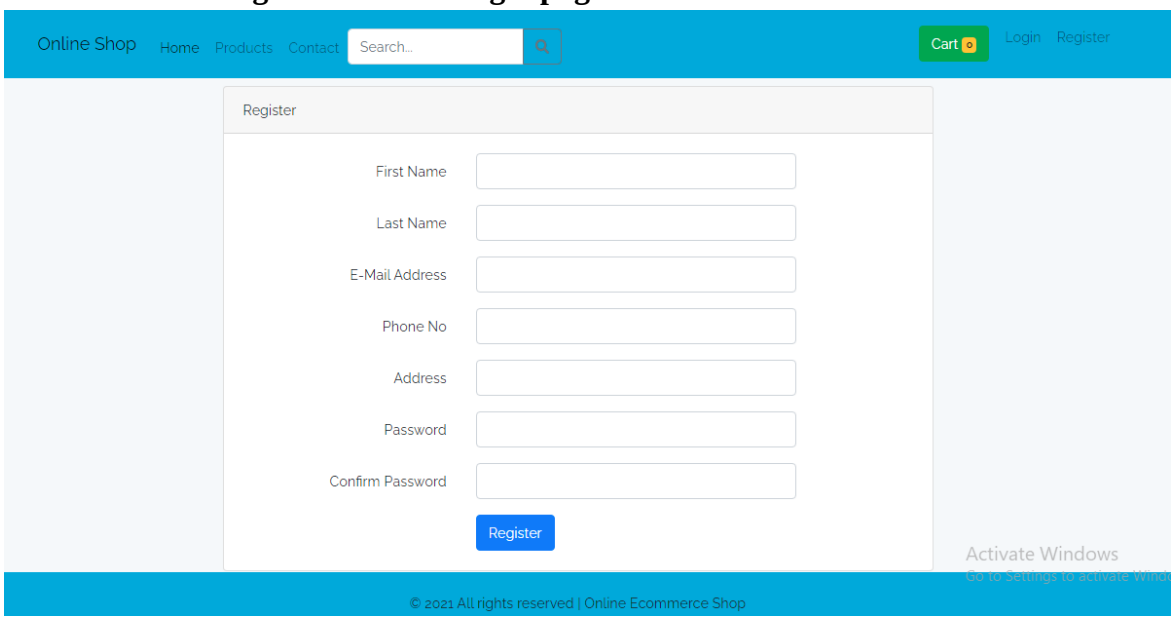


Figure 23: Customer Registration page

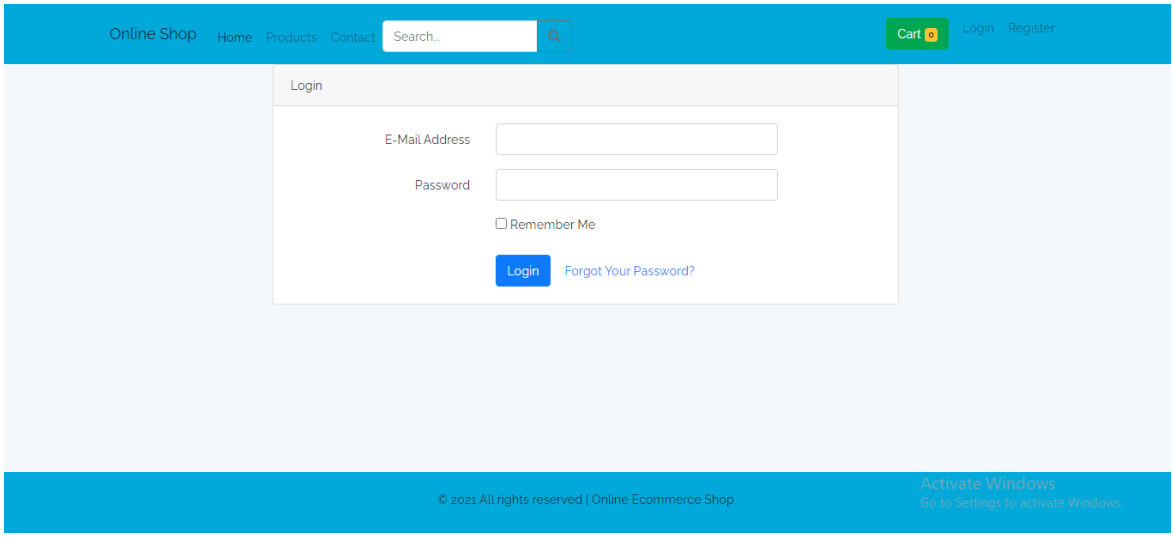


Figure 24: Customer Login page

6.5.3 Add to Cart page

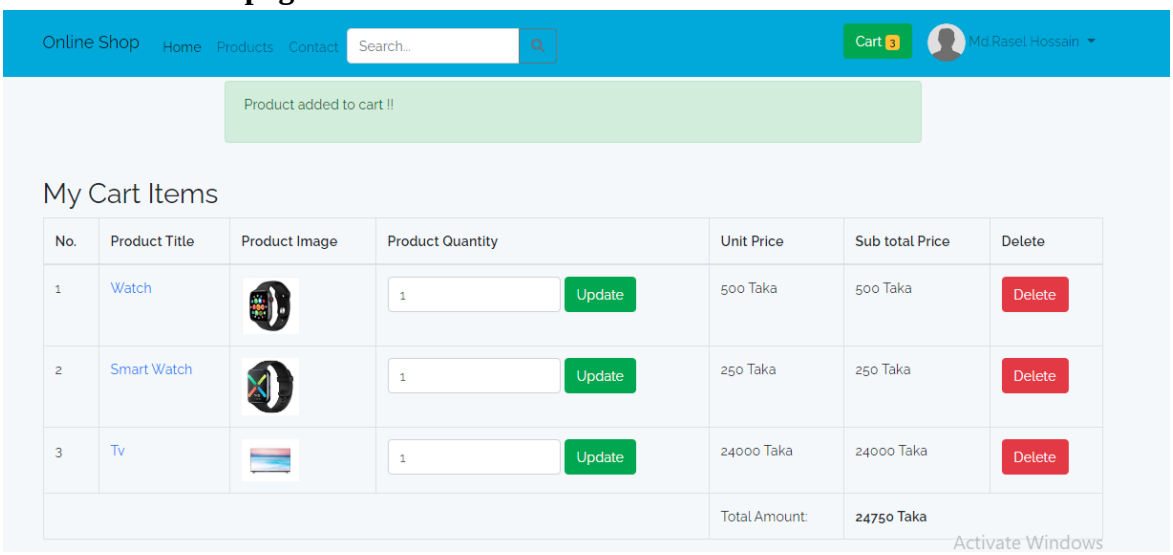


Figure 25: Add to Cart page

6.5.4 Product single Page

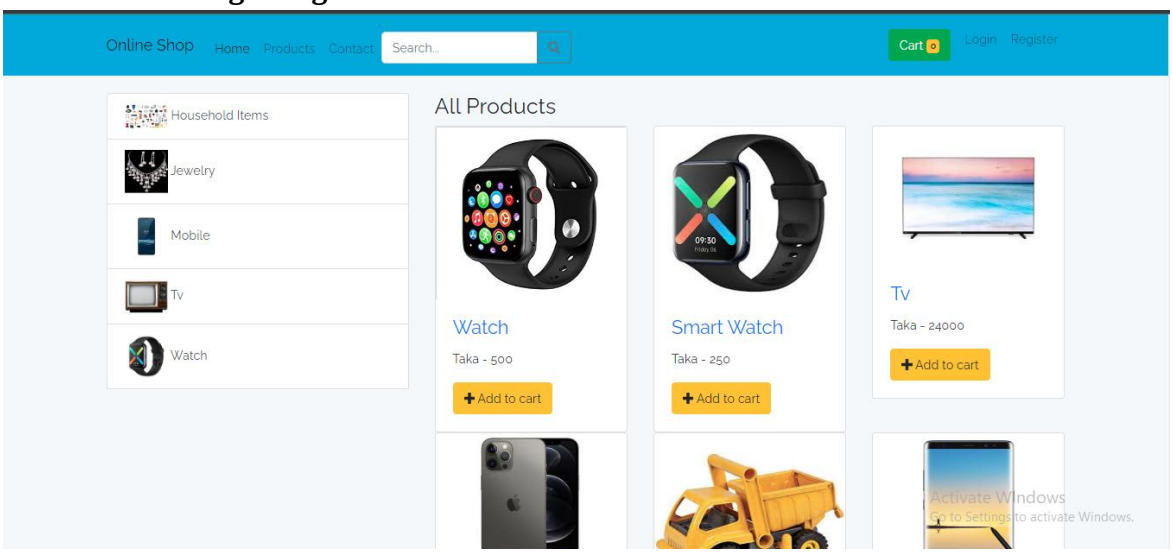


Figure 26: Product single Page

6.5.5 Product Search page

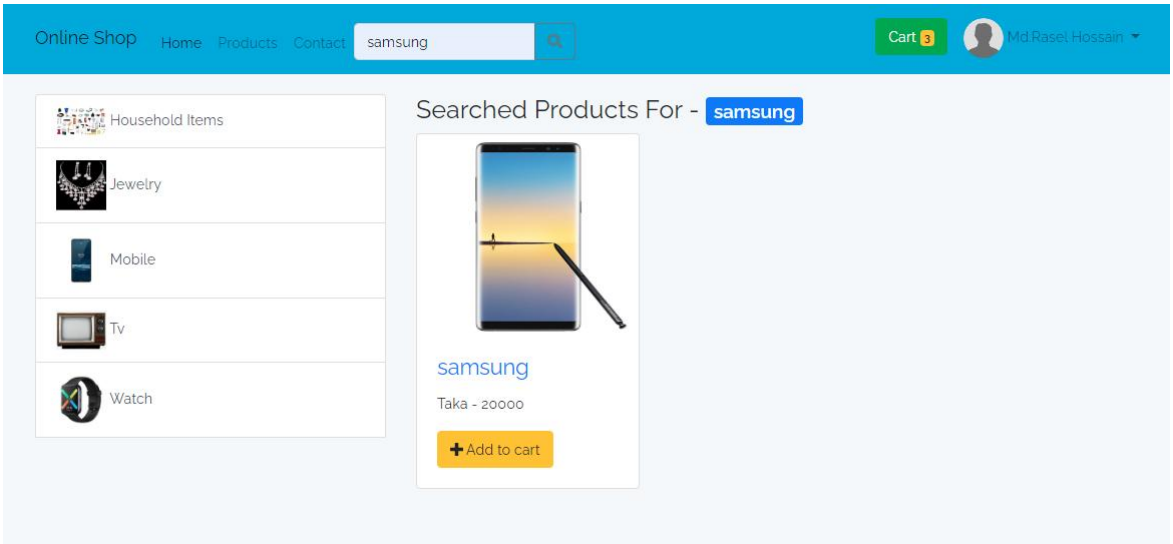


Figure 27: Product Search page

6.5.6 Order Page

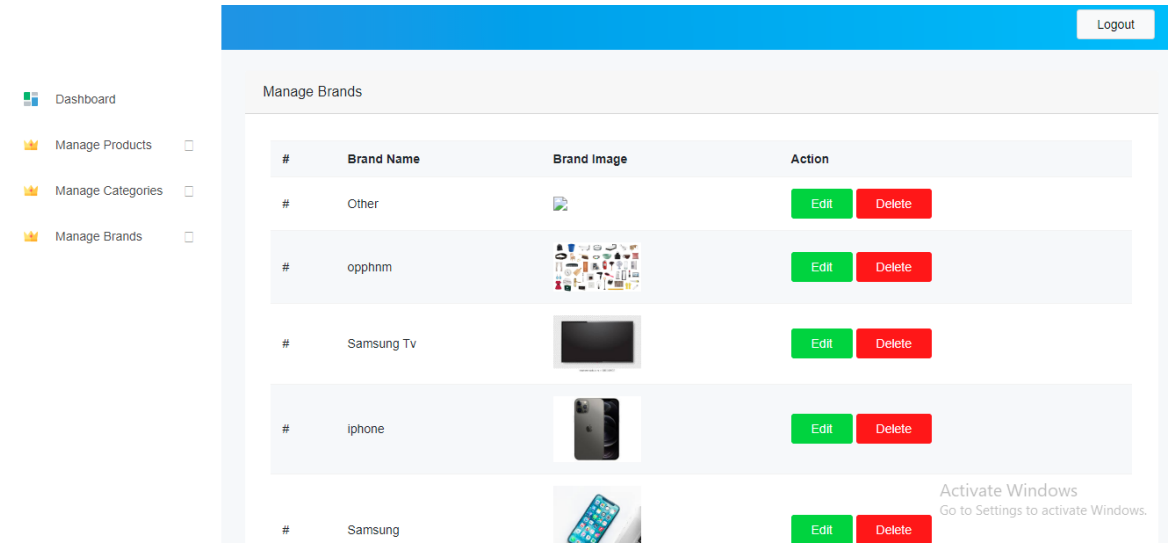


Figure 28: Order Page

6.5.7 Admin Login Page

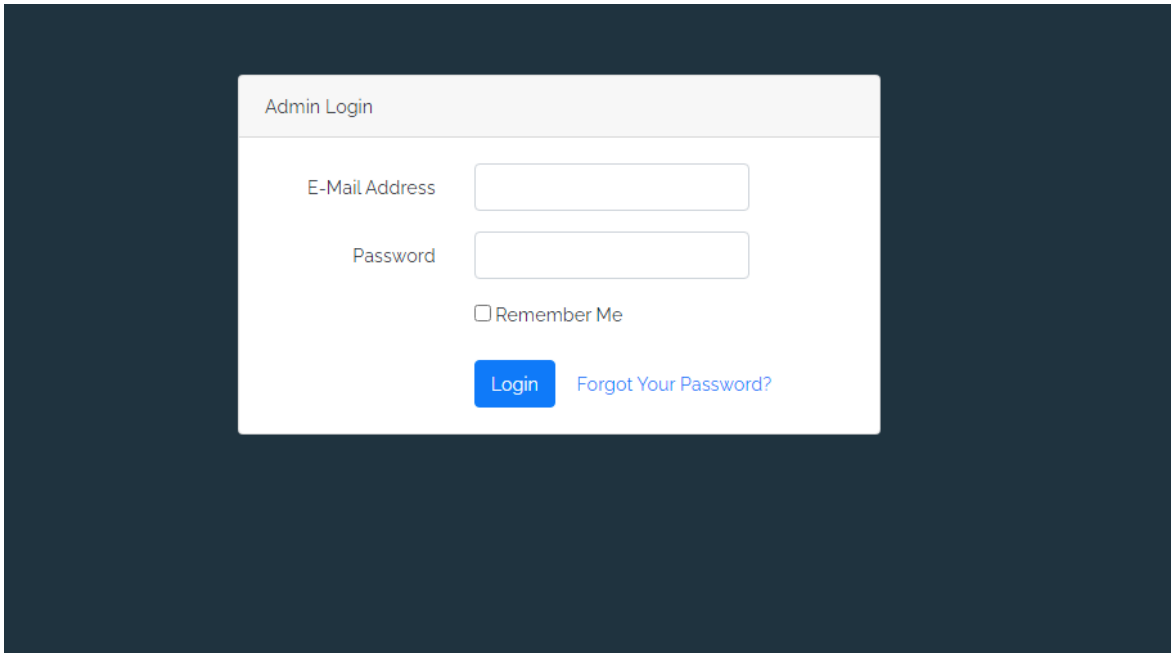


Figure 29: Admin Login Page

6.5.8 Admin Panel Page

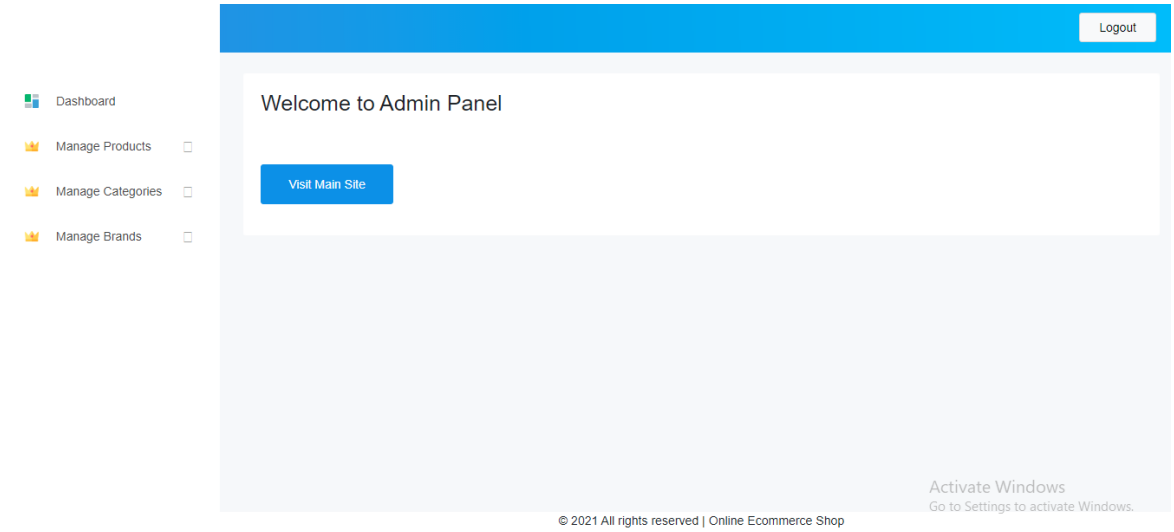


Figure 30: Admin Panel Page

6.5.9 Product Insert page

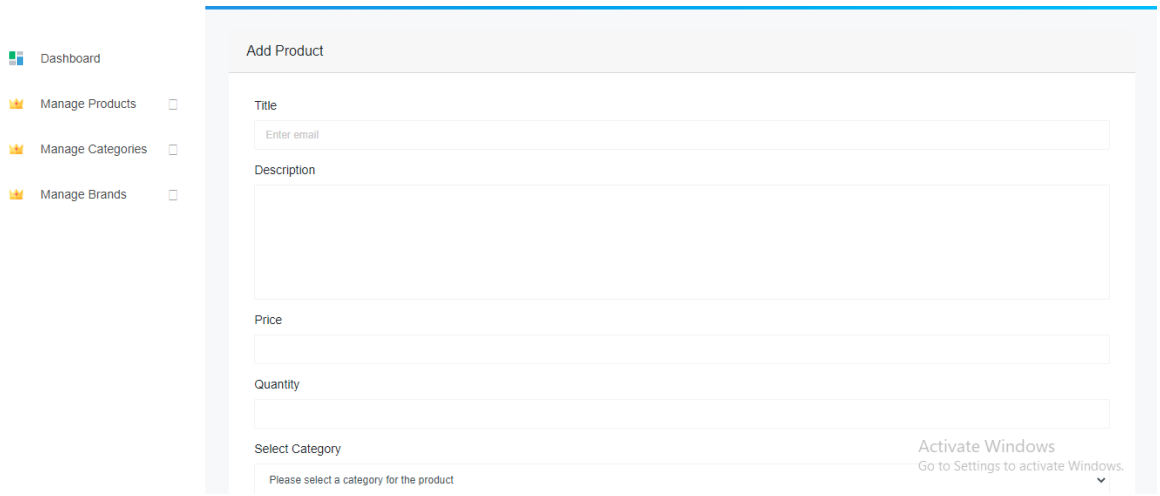


Figure 31: Product Insert page

6.5.10 Product List page

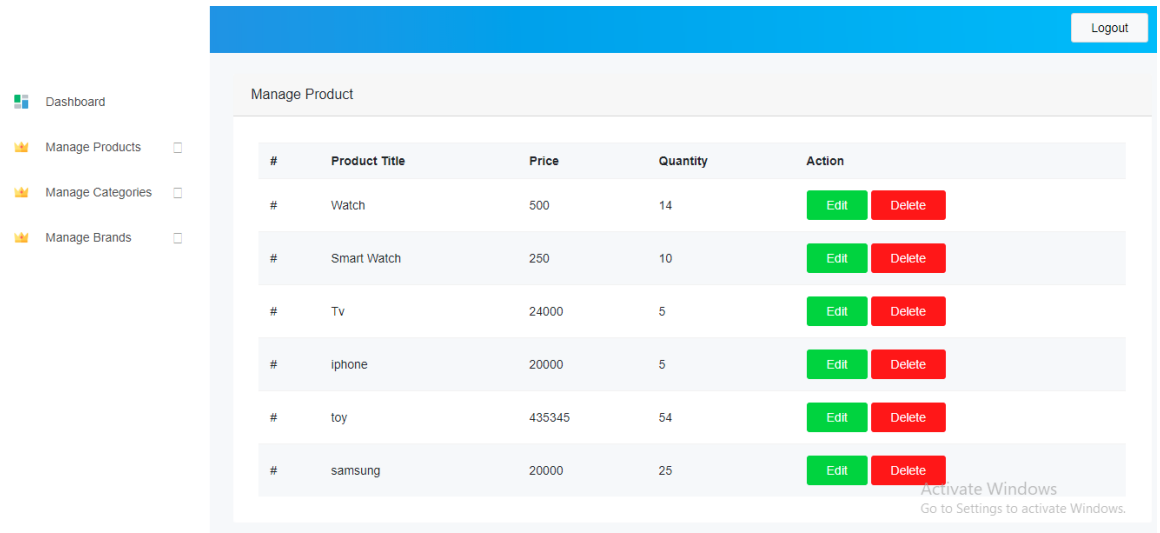


Figure 32: Product List page

6.6 Deployment Used technology

- HTML - It is used to generate web page. HTML, an initials of Hypertext MarkupLanguage, this markup language for web pages. It provides a means to describe the structure of text-based information in a document - by denoting certain text as headings, paragraphs, lists, and so on. Without HTML browser can not show anything.
- CSS - For front end design we used CSS.

- Bootstrap - CSS most popular framework.Used bootstrap for design site attractive. additional justification for using Bootstraps Sensitive Smartphone, Tablet and Laptop Modification is more beneficial. With thousands of elements already installed, Bootstrap is simpler to use for a full grid system.
- JavaScript - It is used for checking User information before sending to Javascript is a scripting language most often used for client-side web development. It is a dynamic,weakly typed, prototype-based language with first-class functions.
- JQuery - jQuery is a JavaScript library designed to simplify HTML DOM. Its powerful JavaScript library.
- PHP- PHP is a technology that lets you mix regular, static HTML with dynamically-generated HTML[7]. Many Web pages that are built by CGI programs are mostly static,with the dynamic parl limited to a few small locations. But most CGI variations, including servlets, make you generate the entire page vra your program, even though most of it is always the same. PHP is a widely used, general-purpose scripting language was originally designed for web development, to produce dynamic web pages. lt can be embedded into HTML and generally runs on a web server, which needs to be configured to process PHP code and create web page content from it. lt can be deployed on most web servers and on almost every operating system and platform free of charge. PHP is installed on over 20 million websites and 1 million web servers.Online Shopping Management System.[7]
- Laravel - PHP most famous framework. Laravel is a free, open-source Php framework.A very attractive website can be created using laravel framework and it is very strong in terms of security.Nowadays Many websites are created using Laravel Framework and it is the most powerful framework in PHP programming language
- MySQL - For relational database used mySQL which has more than 6million installations. MySQL stands for "My Structured Query Language". The programers as a server providing multi-user access to a number of databases [7]. The project's source code is available under terms of the GNU General Public License, as well as undera variety of proprietary agreements. MySQL is commonly used by free software projects which require a fill-featured database management system.
- XAMPP - Apache is a web container, or application server developed at the Apache Software Foundation (ASF). I adds tools for configuration and management but can also be configured by editing configuration.

Chapter 7

Testing and Evaluation

7.1 Software Verification and Validation

Software testing is used in association with verification and validation. In this stage, both individual components and the integrated whole are methodically verified to ensure that they are error-free and fully meet the requirements outlined in the first step.

7.1.1 Verification

Have we built the software right? (i.e., does it match the specification?)Yes rve built the right software. It match al specification.Verification is the process of evaluating a system or component to determine whether the products of a given development phase satisfy the conditions imposed at the start of that phase.

7.1.2 Validation

Have we built the right software? (i.e., is this what the customer wants?)Validation is the process of evaluating a system or component during or at the end of the development process to determine whether it satisfies specified requirements. Validation has been done of this project.

7.2 Test Plan

7.2.1 Unit Testing

Unit testing is a software verification and validation method where the programmer gains confidence that individual units of source code are fit for use. A unit is the smallest testable part of an application.

Table 3: Unit Testing

Test No	Test cases	Test data	Expected outcomes	Actual result	Status
1	Admin login	Email & password	Admin dashboard	Admin dashboard	Pass
2	Customer registration	Deatils information	Email verification	Not verify	Fail
3	Customer registration	Deatils information	Email verification	Email verified	pass
4	Admin logout	Logout button press	Homepage open	Homepage open	pass
5	Customer logout	Logout button press	Homepage open	Homepage open	pass

7.2.2 Integration Testing

Integration testing, also known as integration and testing, is a software development process which program units are combined and tested as groups in multiple ways. In this context, a unit is defined as the smallest testable part of an application. Integration testing can expose problems with the interfaces among program components before trouble occurs in real-world program execution. Integration testing is a component of Extreme Programming, a pragmatic method of software development that takes a meticulous approach to building a product by means of continual testing and revision.

Table 4: Integration Testing

Test No	Test cases	Test data	Expected outcomes	Actual result	Status
1	Registration	Entry the required field	Successfully registered	Failed to register	fail
2	Registration	Entry the required field	Successfully registered	Successfully registered	Pass
3	Update/delete items	Upadte delete button	Successfully upadted/deleted	Successfully upadted/deleted	Pass

7.2.3 System Testing

We provide dummy data and tested the complete system. The system was successfully able to go to next step without creating much error. The result were expected and there was no problem while entering user Id, selecting item and showing the information. Item detail could be easily viewed and returning to the homepage and viewing recommended item and many more were successful.

Table 5: System Testing

Test No	Test cases	Expected outcomes	Actual result	Status
1	Entry the valid date in user Id and	Login page should be display.	Login page opened.	pass

	user password and click on login button on login page.			
2	Select the item and show the information	Information shown to the user.	Information showed	pass
3	Order the items in the system	Request complete and mail the customer	Request complete but not send mail	Fail

Chapter 8

Future work and Conclusion

8.1 Goal

The main goal of our project is Sell goods and service online. This e-commerce site has a lot features for customer. Our system provides a friendly interface to the customers and reduce the complexity of human life. This online E-commerce shop may be a complete solution for those people get uncomfortable to go on a crowded place.

8.2 Limitation

i. Without registration user can not buy product.
ii. Daily sales and purchases details must be entered into cars are very difficult to maintain.
iii. The ordered place distance will make long time to deliver
iv. After complete payment user can not displace the order.
v. Online transaction or Credit card validation is not done.

8.3 Future Work

- Some of the features that will be modified and added to this system.
- Third party software can be used for validation check.
- we will try to apply artificial intelligence (AI) based features to our project.
- We will make our security stronger to find out real users.
- Integrate Payment system.

8.4 Conclusion

Finally successfully develop and implement fhe site 'Online E-commerce Shop' system. With the help of various kinds of links and tools, includes all the features which was basic requirement for an e-commerce web site. Provide an e-commerce site which is live and running on the web.Finally got success in our attempt to take care of the needs of both the customers as well as the administrator which was our main objectives.

REFERENCES

[1] Retrieved 10 01, 2020, from thefinancialexpress.com.bd: *https://thefinancialexpress.com.bd/views/views/e-commerce-in-bangladesh-where-are-we-headed-1578666791*

[2] Adel Mohammad, Ja'far Alqatawna, Mohammad Abushariah, "secure software engineering:Evaluation of engineering trends" , *Information Technology (ICIT) 2017 8th International Conference on,* pp. 814-818, 2017.

[3] I Putu Dody Lesmana, Rinda Nurul Karimah, Beni Widiawan, "Agile-Waterfall hybrid for prevention information system of dengue viral infections: A case study in Health Department of Jember East Java lndonesia", *ICT and Knowledge Engineering (ICT&KE)2016 14th International Conference on,*pp 1-6,2016,ISSN 2157-099X.

[4] C. Ebert, "Undersanding the Product Life Cycle: Four Key Requirements Engineering Techniques",*IEEE Software,* vol.23,no.3, pp. 19-25, May 2006.

[5] Richard R Maiti, Frank J. Mitropoulos, "Capturing eliciting predicting and prioritizing (CEPP)non-functional requirements metadata during the early stages of agile software development",.*SoutheastCon 2015,* pp. l-8, 2015, ISSN 1558-058X.

[6] Abubaker Wahaballa, Osman Wahballa, Majdi Abdellatief Hu Xiong, Zhiguang Qin, "Toward unified DevOps model*", Software Engineering and Service Science (ICSESS) 2015 6th IEEE international Conference on,* pp. 211-214, 2015, ISSN 2327-0594.

[7] D. Anderson, M. Hills, "Query Construction Patterns in PHP*", Proceedings of SANER 2017.IEEE,*pp. 452-456,2017.

[8] Sharon McGee, Des Greer, "A Software Requirements Change Source Taxonomy", *Software Engineering Advances 2009. ICSEA '09. Fourth Intonational Conference on,*pp.51-58, 2009.

[9] S.Jajodia P.A. Ng, F.N. Springsteel, "The Problem of Equivalence for Entity-Relationship Diagrams", *Software Engineering IEEE Transactions on, vol.* SE-9, pp. 617-630, 1983, ISSN 0098-5589.

[10] K. Barker, "A logical model and schema integration architecture for determining equivalence in ER-diagrams', *Computing and information 1992. Proceedings. ICCI '92. Fourth International Conference on,* pp. 320-324, 199