E-Commerce Website using PHP

A PROJECT REPORT

Submitted by

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in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE AND ENGINEERING

Chandigarh University

MAY 2022

BONAFIDE CERTIFICATE

Certified that this project report "**E-Commerce website**" is the bonafide work of Sujata Singh (20BCS7295),Pushpinder Singh (20BCS7300) **&**Shubham Sharma (20BCS7327) who carried out the project work under my supervision.

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COMPTER SCIENCE AND ENGINEERING

SIGNATURE
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HEAD OF THE DEPARTMENT
COMPUTER SCIENCE AND ENGINEERING

Submitted for the project viva-voce examination held on _____ .

INTERNAL EXAMINER **EXTERNAL EXAMINER**

ACKNOWLEDGEMENT

The satisfaction that accompanies that the successful completion of any task would be incomplete without the mention of people whose ceaseless cooperation made it possible, whose constant guidance and encouragement crown all efforts with success.We are grateful to our project guide **Er. Nisha Rani & Er. Triveni Lal Pal** for the guidance, inspiration and constructive suggestions that helpful us in the preparation of this project. We also thank our colleagues who have helped in successful completion of the project.

ABSTRACT

In fast forwarding world, none of us have time to visit mall ,or shop to buy products , in that case we need to have access to them sitting at our home. And Ecommerce provide us that facility. The project “E-Commerce” aim to build a responsive website which involves buying and selling of goods and services. Now, user can browse online shops, compare prices and order merchandise sitting at home on their PC. Much like a traditional physical retail store, e-commerce websites allow consumers to buy and sell to one another on a designated platform.

Ecommerce has become a revolution now days , every procedure is done online which offers so many advantages . It includes helping one to choose from a wide range of products and get the order delivered too. Searching for an item, seeing the description, adding to cart – all steps happen in no time at all. In the end, the buyer is happy because he has the item and didn’t have to travel far. Here the seller has full control over customization , he can mention offers available, discounts etc. Other advantages of e-business product listing are that it is free to upload and fast. It provide flexibility to customers , the product and services are ready 24x7. The result is that seller can offer his item any place, any time . The designed application will have an admin panel which consists of categories admin , product admin, order master, users listing and also will be provided contact service. The customers will be able to handle their information such as their name, address, and contact. Two payment gateway has been added , one is cash on delivery and other one is using online payment methods.

Before Covid this world was largely inclined towards local shopping . But this scenario changed completely . The use of ecommerce was less as compare to now. With following norms , local shopping was like a impossible thing to do. In such situation , ecommerce fulfilled the need .

The digital economy boomed during the COVID-19 crisis. As people embraced social distancing, they turned to online shopping more than ever before.

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Chapter 1: Introduction

Chapter One

Introduction

1.1 Overview

The ‘E-commerce website Services department strives to provide solutions to develop and transfer easy and efficient way in the digital age and to help reduces the human pressure and time. To help support shop collections, the digital initiatives, and external partner institution digital projects, It provide services that include the digitization of analog objects, metadata management, digital preservation, and discovery and access of digital collections. Our project is a web application written for all operating systems, designed to help users maintain and organize shop virtually.This is easy to use for both beginners and advanced users. It features a familiar and well thought-out, an attractive user interface, combined with strong searching Insertion and reporting capabilities. The report generation facility of E-commerce helps to get a good idea of which are the various items broughtby the members, makes users possible to get the product easily.

The ‘Online E-commerce Website for product selling’ Services department strives to provide solutions to develop and transfer easy and efficient way in the digital age and to help reduces the human pressure and time. To help support shop collections, the digital initiatives, and external partner institution digital projects, It provides services that include the digitization of analog objects, metadata management, digital preservation, and discovery and access of digital collections. “Online E-commerce Website for product selling” is a web application written for all operating systems, designed to help users maintain and organize shop virtually.This software is easy to use for both beginners and advanced users. It features a familiar and well thought-out, an attractive user interface, combined with strong searching Insertion and reporting capabilities. The report generation facility of online shopping helps to get a good idea of which are the various items broughtby the members, makes users possible to get the product easily.

1.2 Background Study

E-commerce is fast gaining ground as an accepted and used business paradigm. More andmore business houses are implementing web sites providing functionality for performing commercial transactions over the web. It is reasonable to say that the process of shoppingon the web is becoming commonplace.

The objective of this project is to develop a general-purpose e-commerce store where anyproduct (such as books, CDs, computers, mobile phones, electronic items, and home appliances) can be bought from the comfort of home through the Internet. However, for implementation purposes, this paper will deal with an online ecommerce store.

An online store is a virtual store on the Internet where customers can browse the catalog and select products of interest. The selected items may be collected in a shopping cart. Atcheckout time, the items in the shopping cart will be presented as an order. At that time, more information will be needed to complete the

1.3 Project Planning

Project planning is part of project management, which relates to the use of schedules such as Gantt charts to plan and subsequently report progress within the project environment. Initially, the project scope is defined and the appropriate methods for completing the project are determined. Following this step, the durations for the various tasks necessary to complete the work are listed and grouped into a work breakdown structure. The logical dependencies

between tasks are defined using an activity network diagram that enables identification of the critical path. Float or slack time in the schedule can be calculated using project management software. Then the necessary resources can be estimated and costs for each activity can be allocated to each resource, giving the total project cost. At this stage, the project plan maybe optimized to achieve the appropriate balance between resource usage and project duration to complywith the project objectives. Once established and agreed, the plan becomes what is known as the baseline. Progress will be measured against the baseline throughout the life of the project

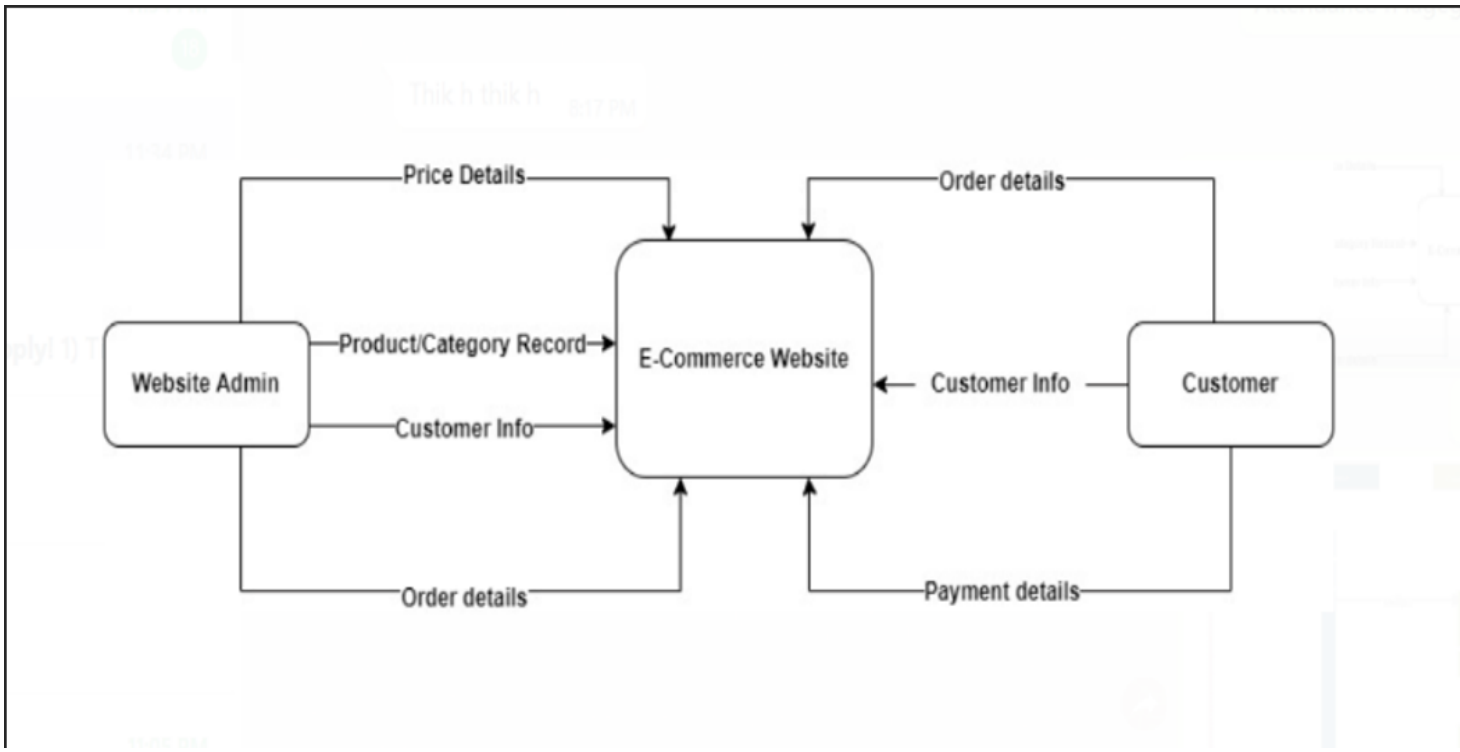
1.4 Purposes

The project is about to handle all the information of the shop regarding members. Also it manages resources which were managed and handled by manpower previously. The main purpose of the project isto integrate distinct sections of the shop into consistent manner so that complex functions can be handledsmoothly. The project aims at the following matters

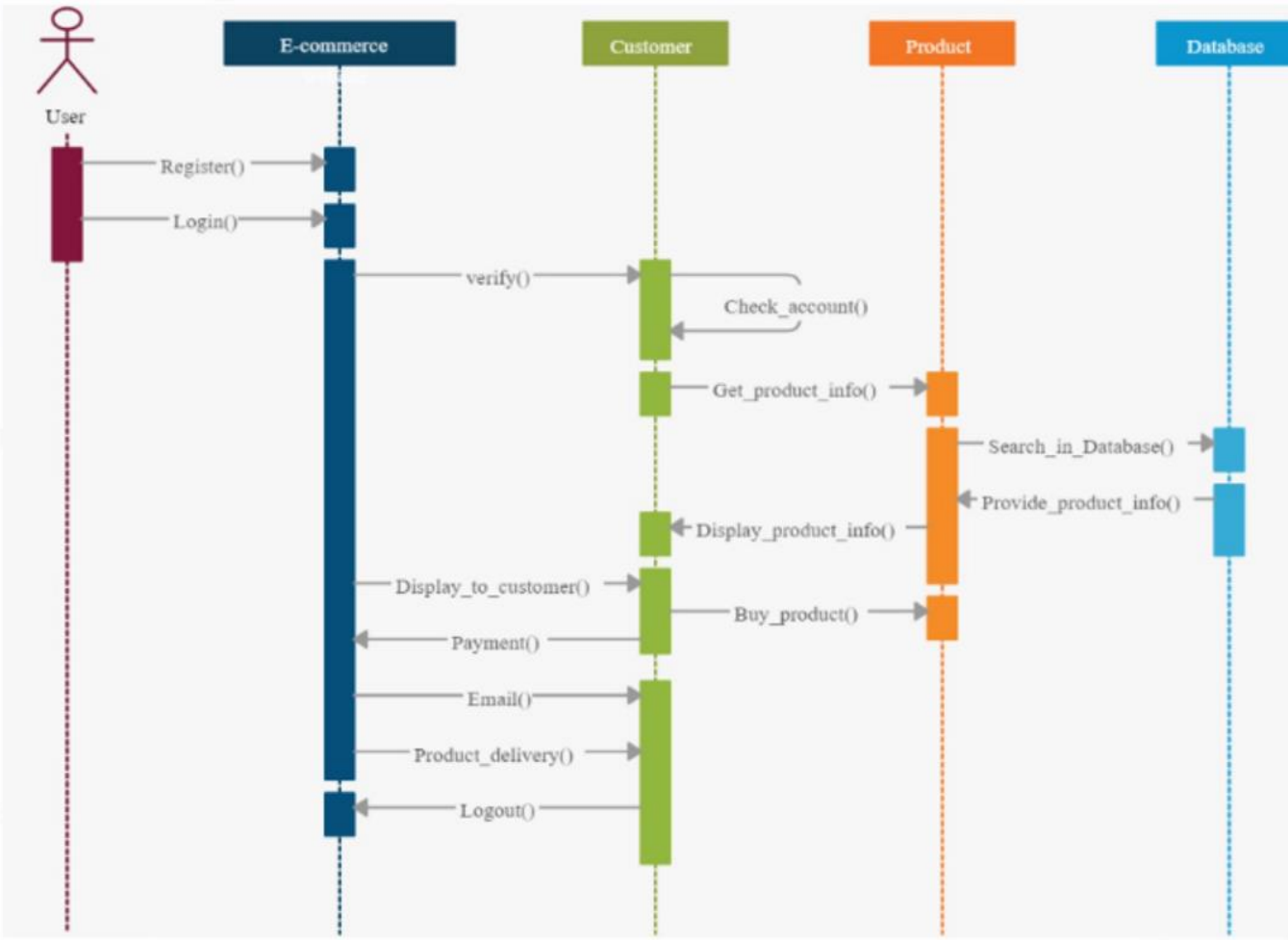
- Automation of product manipulation.
- Buying products.
- To manage information of different types of items.
- Consistently update information of all the item.
- Managing security by providing authorized email & password.Manages database efficiently.

2.1 Design

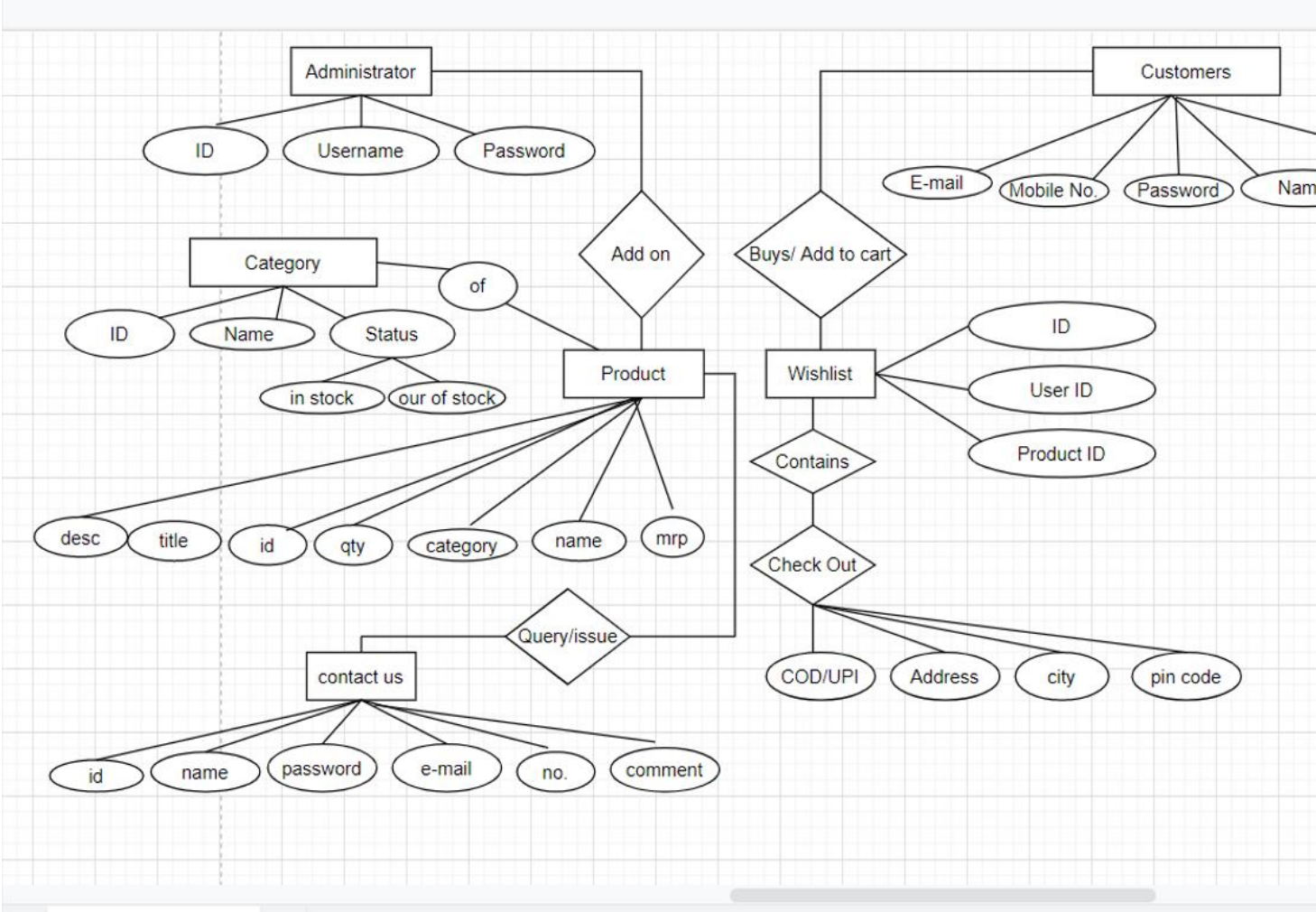
Data Flow Diagram



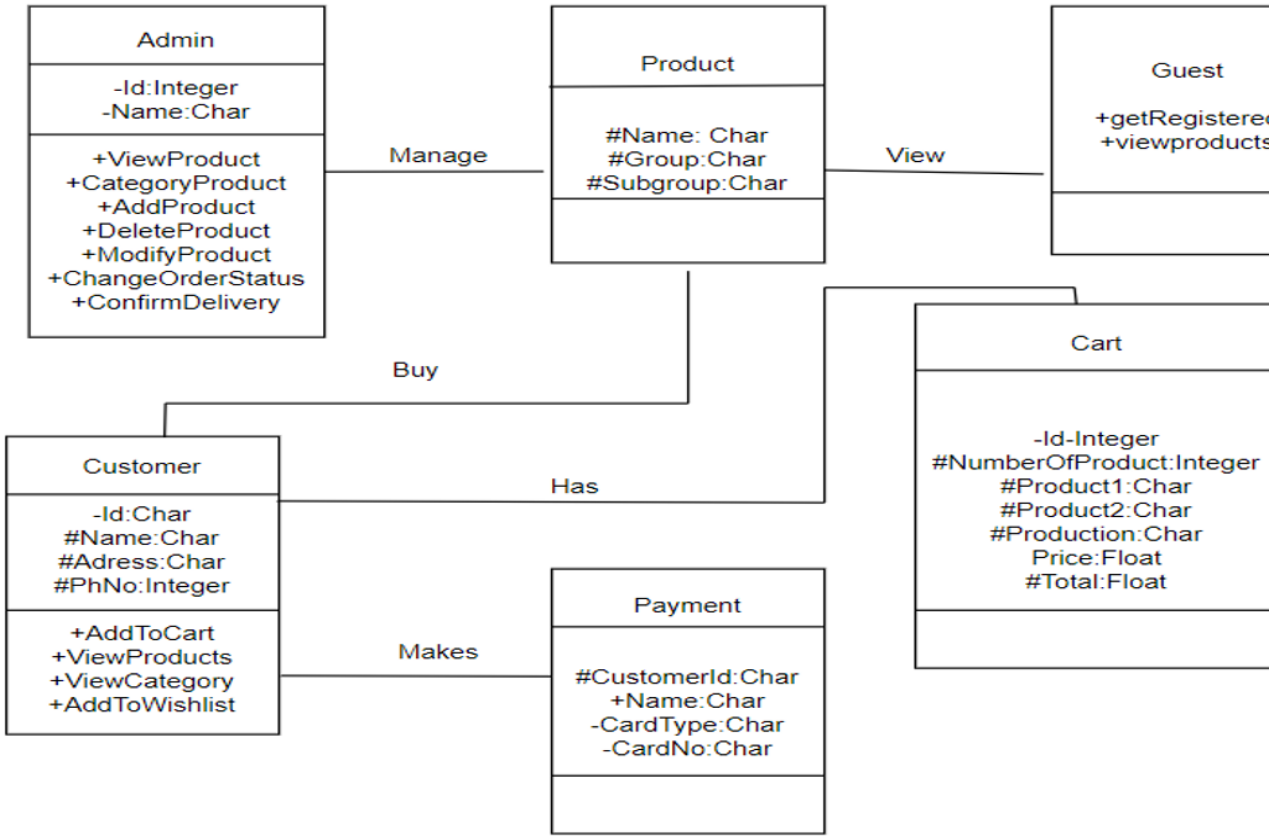
Sequence Diagram


User
E-commerce
Customer
Product
Database
Register()
Login()
verify()
Check_account()
Get_product_info()
Search_in_Database()
Provide_product_info()
Display_product_info()
Display_to_customer()
Buy_product()
Payment()
Email()
Product_delivery()
Logout()

ER Diagram



Class Diagram


Admin
-Id:Integer
-Name:Char
+ViewProduct
+CategoryProduct
+AddProduct
+DeleteProduct
+ModifyProduct
+ChangeOrderStatus
+ConfirmDelivery
Manage
Product
#Name: Char
#Group:Char
#Subgroup:Char
View
Guest
+getRegistere
+viewproducts
Buy
Cart
-Id-Integer
#NumberOfProduct:Integer
#Product1:Char
#Product2:Char
#Production:Char
Price:Float
#Total:Float
Customer
-Id:Char
#Name:Char
#Adress:Char
#PhNo:Integer
+AddToCart
+ViewProducts
+ViewCategory
+AddToWishlist
Has
Makes
Payment
#CustomerId:Char
+Name:Char
-CardType:Char
-CardNo:Char

Chapter Two
System Design

2.2 User Characteristics

Admin The administrator has all the rights to access the system. He is the one who has all rights to view the members and product details, modify those details. He can add various product based on thecategory. He can also set the available quantity of a product and its reasonable price. Also he can alsoset discount in various occasion. Admin can also view the details of a member. The admin have the power to generate the scratch card so that users can also use the recharge card to buy various product.

Users The user can log in to the system by using his specific email and password. User can view the products and order the products according to their own needs. He can view his profile and update

his details. He can update his personal information by logging into the system. User can find variousproduct by using search option easily. update his details. He can update his personal information by logging into the system. User can find various product by using search option easily.

2.3 System Information

This system is an automated VAMS come and buy system. Through the software user can add members, add product, search product, update information, edit information, buy the product in quicktime. The system has the following advantages:

1. User friendly interface
2. Fast access to database
3. Search facility
4. Look and Feel Environment

2.4 System Analysis

System Analysis refers into the process of examining a situation with the intent of improving it through better procedures and methods. System Analysis is the process of planning a new system to either replace or complement an existing system. But before any planning is done the old system must be thoroughly understood and the requirements determined. System analysis is therefore, the process of gathering and interpreting facts, diagnosing problems and using the information to re- comment improvements in the system. System analysis is conducted with the following objectives inmind:

1. Evaluate the system concept for feasibility.
2. Perform economic and technical analysis.
3. Allocate functions to hardware, software people, database and other system elements.
4. Establish cost and schedule constraints.
5. Create a system definition that forms the foundation for all the subsequent engineering work.

2.5 Feasibility Analysis

Whatever we think need not be feasible .It is wise to think about the feasibility of any problem we undertake. Feasibility is the study of impact, which happens in the organization by the developmentof a system. The impact can be either positive or negative. When the positives nominate the negatives, then the system is considered feasible. Here the feasibility study can be performed in twoways such as technical feasibility and Economical Feasibility.

Technical Feasibility

It is technically feasible, since there will not be much difficulty in getting required resources for the development and maintaining the system as well. All the resources needed for the development of the software as well as the maintenance.

Economical Feasibility

Development of this application is highly economically feasible .The organization needed not spend much one for the development of the system already available. The only thing is to be done is makingan environment for the development with an effective supervision. I f we are doing so , we can attain the maximum usability of the corresponding resources .Even after the development , the organizationwill not be in a condition to invest more in the organization .Therefore , the system is economically feasible.

Chapter Three

Hardware and Software Requirement

3.1 Hardware Required

- **Processor** **:** Pentium IV or Above
- **RAM** **:** 2GB or above
- **Hard Disk** **:** 50GB or above
- **Input Devices** **:** Keyboard, Mouse
- **Output Devices :** LAPTOP

3.2 Software Required

- **Operating System** **:** Linux, Ubuntu, Mac, Windows XP, 7, 8, 8.1, 10
- **Frontend** **:** HTML,CSS, Bootstrap, JavaScript
- **Backend** **:** PHP, MySQL
- **Local host** **:** XAMPP

Chapter Four

Implementing Tools for the Project

4.1 Tools

HTML
CSS
Bootstrap
MySQL
XAMPP

4.2 What is XAMPP

XAMPP stands for Cross-Platform (X), Apache (A), MySQL (M), PHP (P) and Perl (P). It is a simple, lightweight Apache distribution that makes it extremely easy for developers to create a local webserver for testing purposes. Everything you need to set up a web server – server application (Apache), database (MySQL), and scripting language (PHP) – is included in a simple extractable file. XAMPP is also cross-platform, which means it works equally well on Linux, Mac and Windows. Since most actual web server deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server is extremely easy as well. Web development using XAMPP is especially beginner friendly.

4.3 What's included in XAMPP

XAMPP has four primary components. These are:

Apache: Apache is the actual web server application that processes and delivers web content to a computer. Apache is the most popular web server online, powering nearly 54% of all websites.

MySQL: Every web application, howsoever simple or complicated, requires a database for storingcollected data. MySQL, which is open source, is the world's most popular database management system. It powers everything from hobbyist websites to professional platforms like Word Press.

PHP: PHP stands for Hypertext Pre processor. It is a server-side scripting language that powers some of the most popular websites in the world, including Word Press and Facebook. It is open source, relatively easy to learn, and works perfectly with MySQL, making it a popular choice for web.

HTML

HTML is short for Hypertext Markup Language. HTML is used to create electronic documents (called pages) that are displayed on the World Wide Web. It describes the structure of a Web page. It consists of a series of elements and tags . HTML elements tell the browser how to display the content . Without HTML, a browser would not know how to display text as elements or load images or other elements. HTML also provides a basic structure of the page One could think of HTML as the bones of the webpage.

CSS

CSS Stands for "Cascading Style Sheet." Cascading Style Sheets are used to format the layout of Web pages. They can be used to define text styles, table sizes, and other aspects of Web pages that previously could only be defined in a page's HTML. Once the style is defined in cascading style sheet, it can be used by any page that references the CSS file. Plus, CSS makes it easy to change styles across several pages at once.CSS is like the skin to the websites.

JAVASCRIPT

JavaScript is a lightweight, cross-platform, and interpreted scripting language. It is well-known for the development of web pages, many non-browser environments also use it. JavaScript can be used for Client-side developments as well as Server –Side developments. JavaScript contains a standard library of objects, like Array , Date and Math and a core set of language elements like operators, control structures, and statements.

PHP

PHP is a recursive acronym for "PHP: Hypertext Preprocessor". PHP is a server side scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking, even build entire e-commerce sites. It is integrated with a number of popular databases, including MySQL, PostgreSQL, Oracle, Sybase, Informix, and Microsoft SQL Server. PHP performs system functions, i.e. from files on a system it can create, open, read, write, and close them. PHP can handle forms, i.e. gather data from files, save data to a file, through email you can send data, return data to the user.

MYSQL

SQL is a standard language for accessing and manipulating databases. SQL stands for Structured Query Language. SQL can execute queries against a database, retrieve data, insert records in a database, update ,records ,delete records, create new databases, create new tables in a database, create stored procedures in a database, create views in a database, set permissions on tables, procedures, and views.

Chapter Five

Project Database and Table

5.1 Database Design

Database is critical for all businesses. A good database does not allow any form of anomalies andstores only relevant information in an ordered manner. If a database has anomalies, it is affectingthe efficiency and data integrity. For example, delete anomaly arise upon the deletion of a row which also forces other useful data to be lost. As such, the tables need to be normalized. This fulfils the last objective of ensuring data are accurate and retrieved correctly.

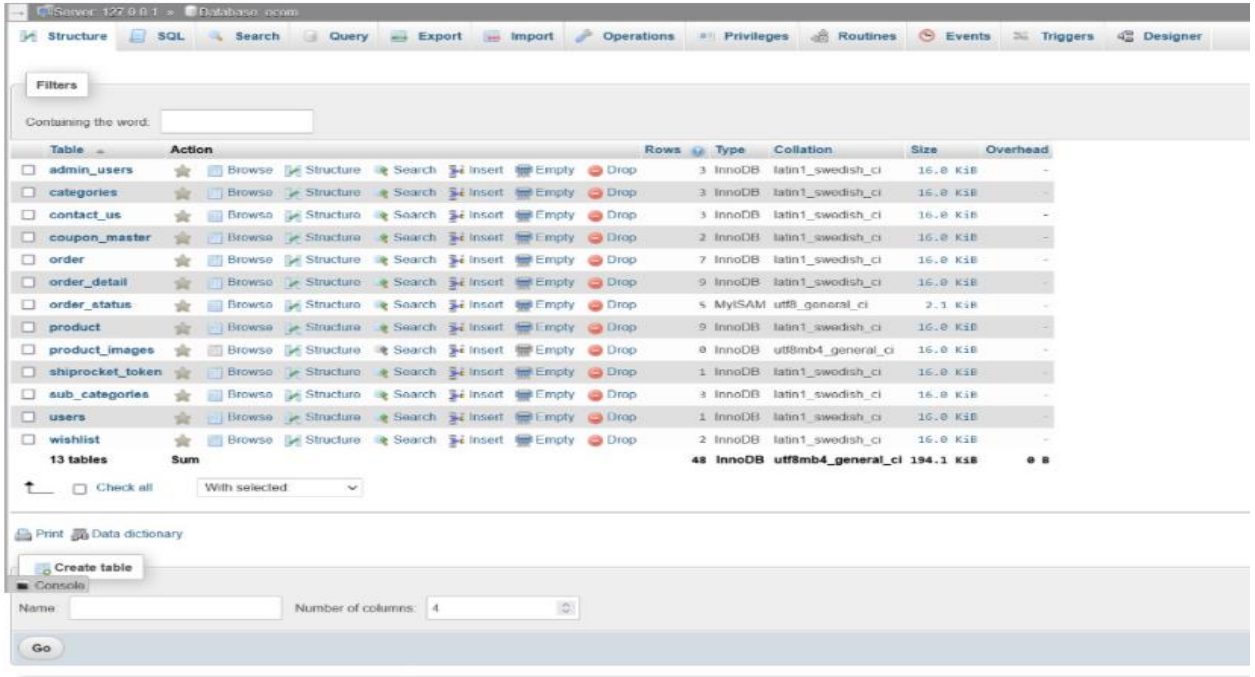
Database files are the key source of information into the system. It is the process of designing database files, which are the key source of information to the system. The files should be properlydesigned and planned for collection, accumulation, editing and retrieving the required information.

The organization of data in database aims to achieve three major objectives: -

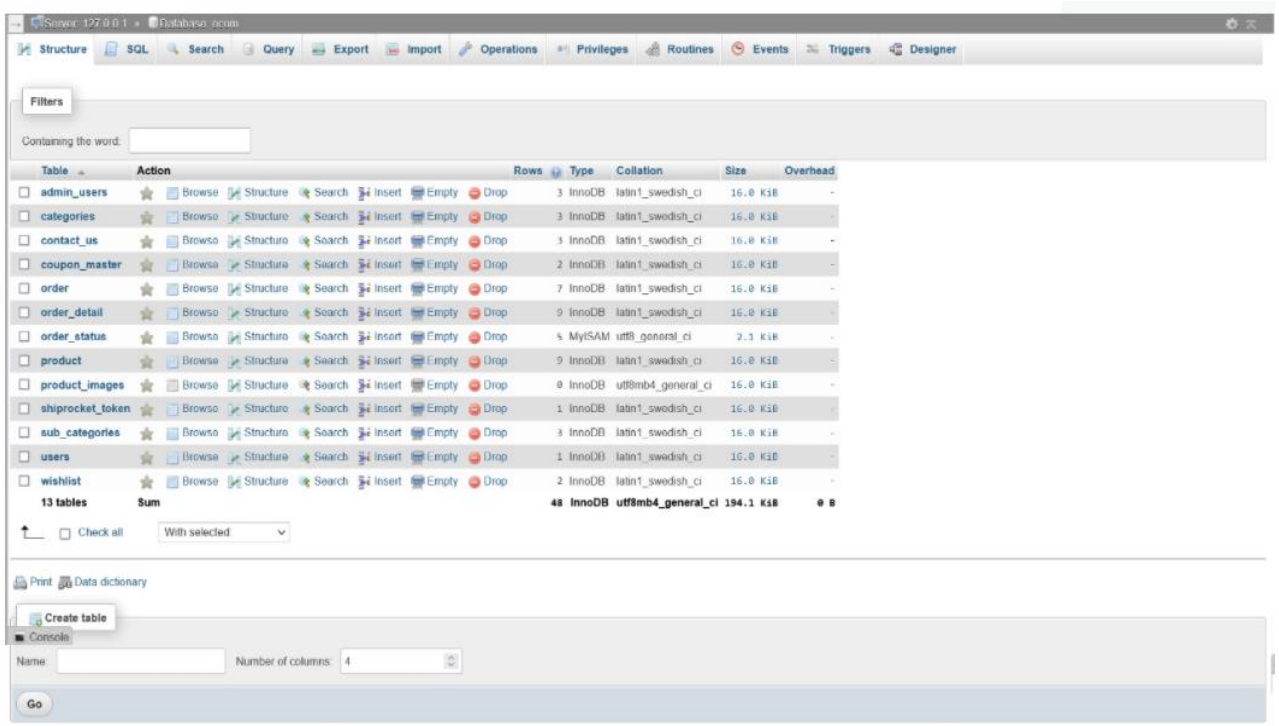
Data integration
Data integrity
Data independence

5.2. Screenshots of Database Design

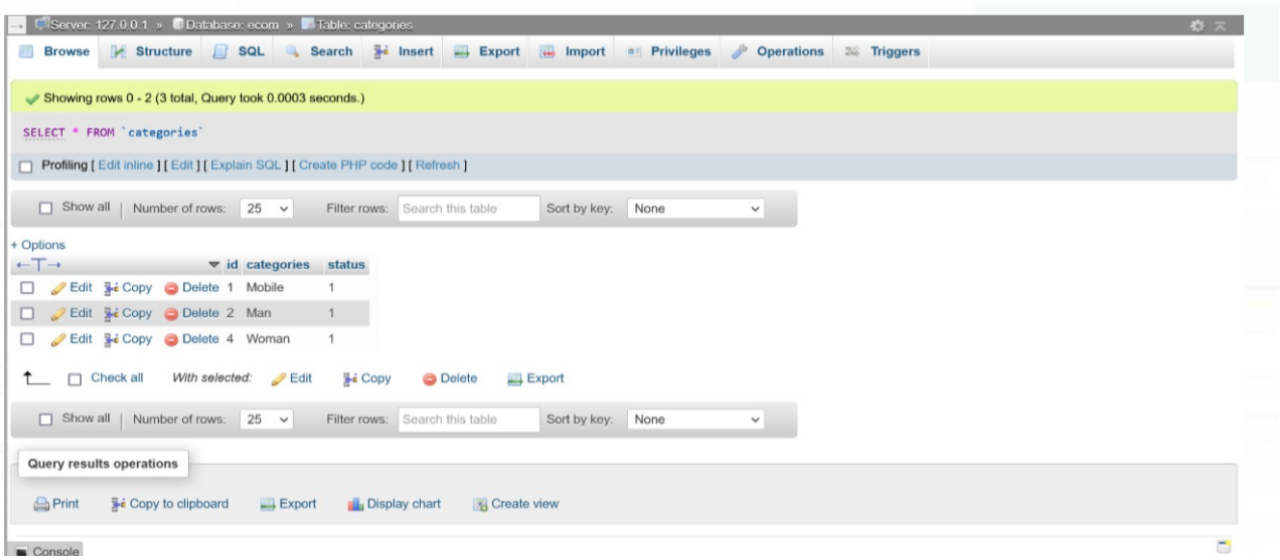
5.2.1 E-Com Database



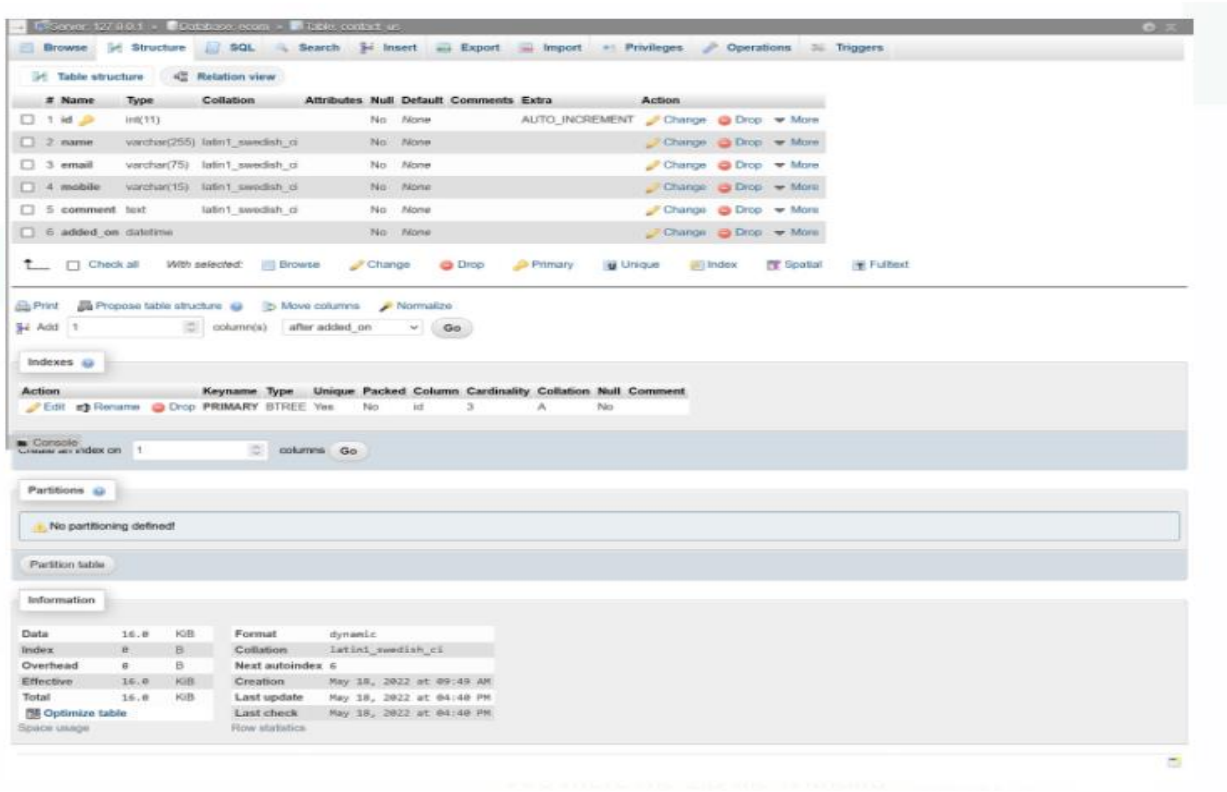
5.2.2 Structure of the Database



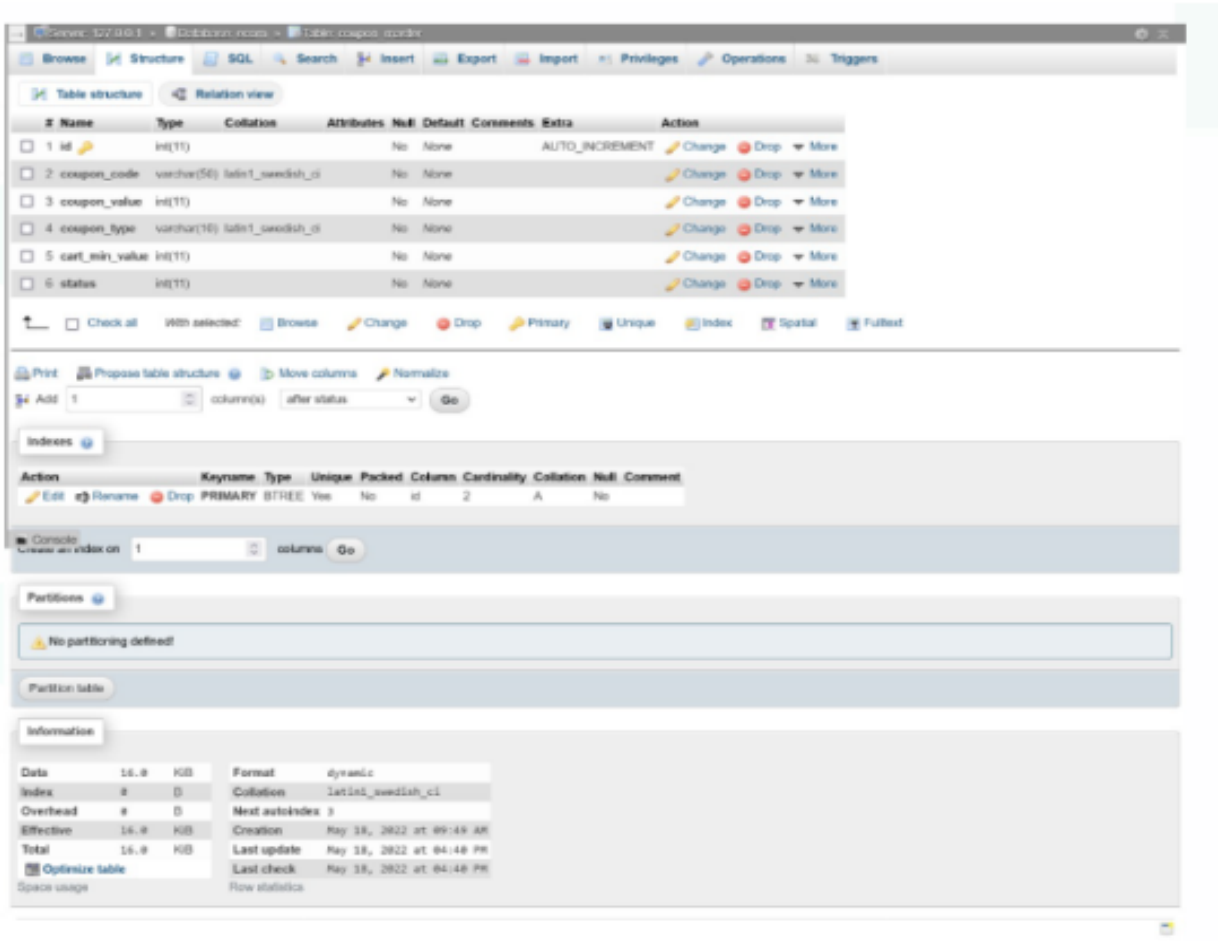
5.2.3 Categories



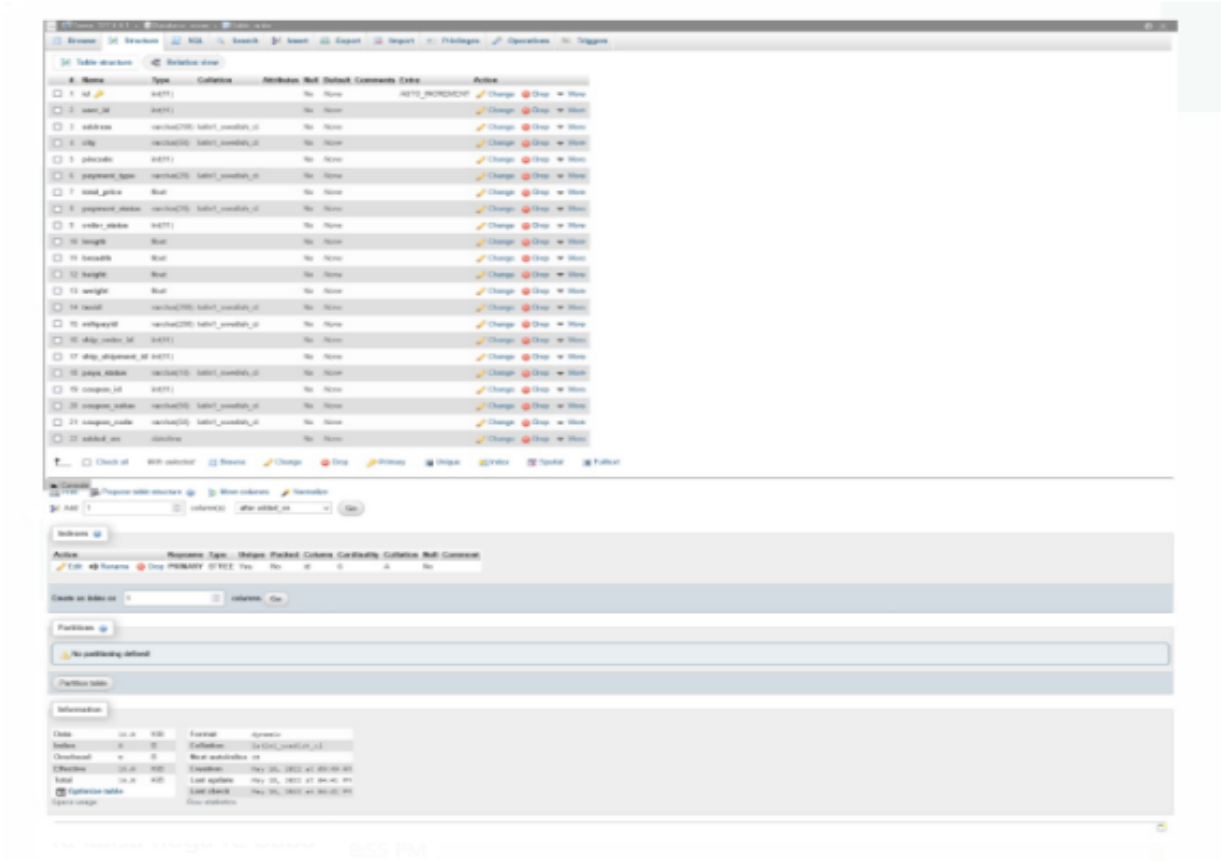
5.2.4 Structure of Table for Contact Us



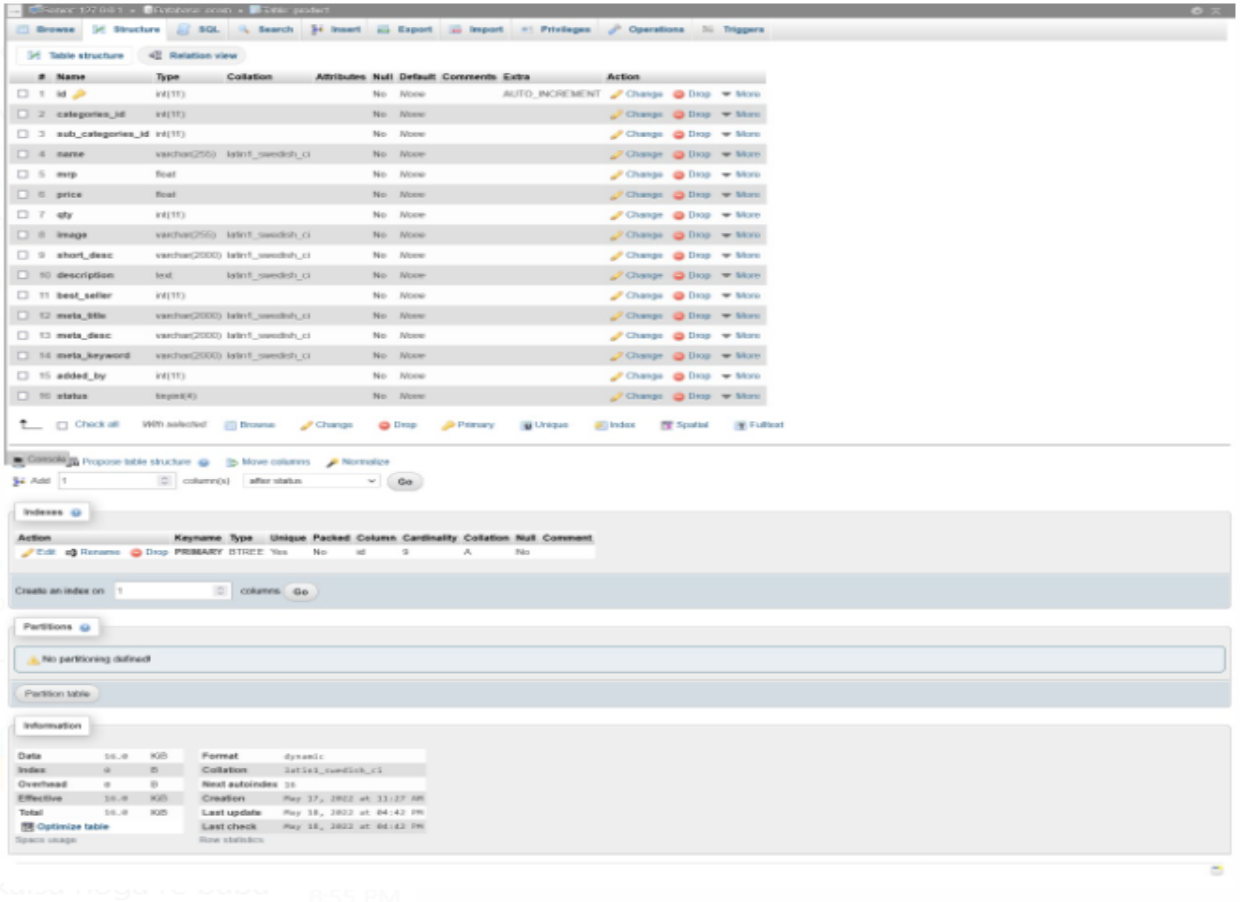
5.2.5 Table Coupon Master



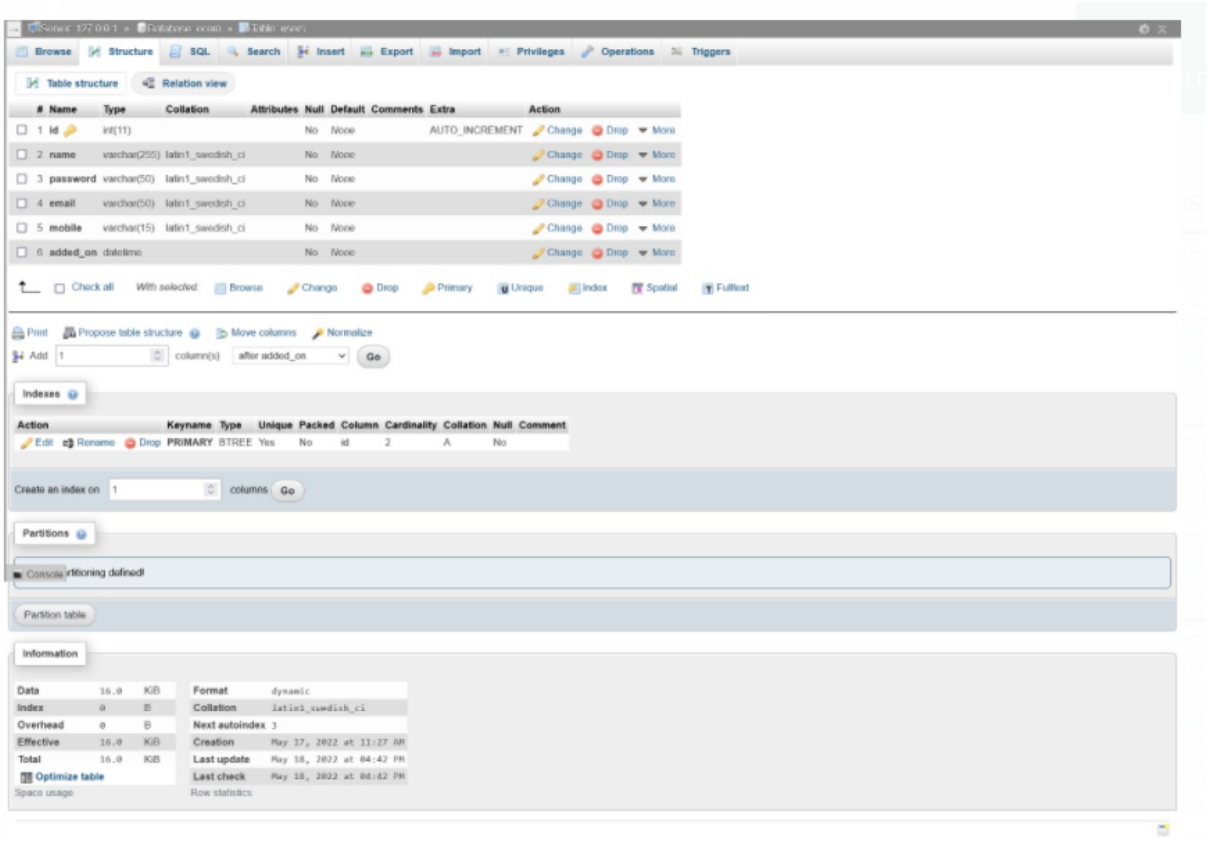
5.2.6 Table Order



5.2.7 Table Product

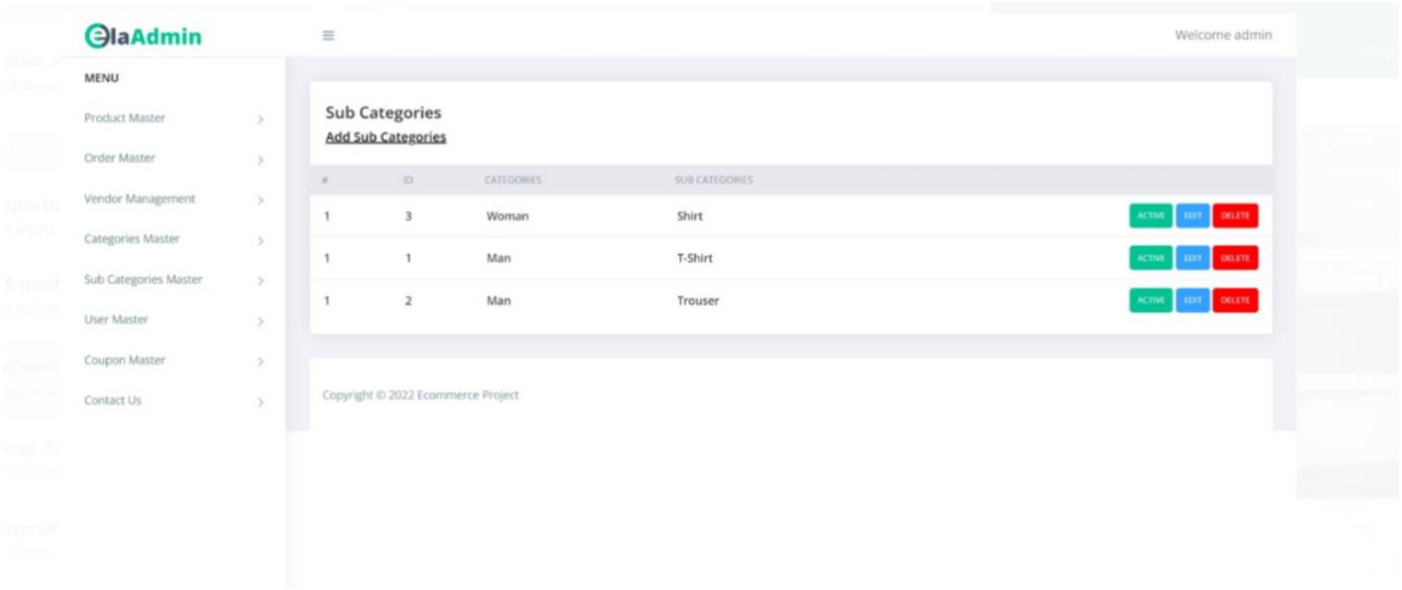


5.2.8 Table Users

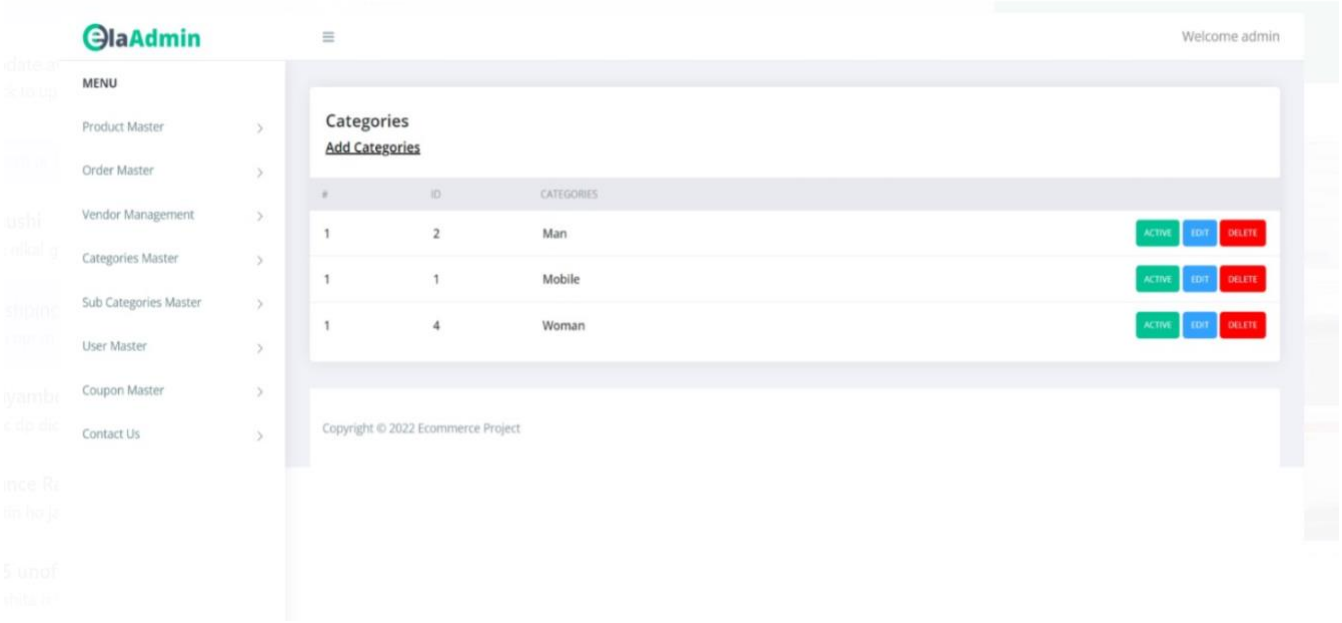

Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Triggers
Table structure
Relation view
Name Type Collation Attributes Null Default Comments Extra Action
1 id int(11) No None AUTO_INCREMENT Change Drop More
2 name varchar(255) latin1_swedish_ci No None Change Drop More
3 password varchar(50) latin1_swedish_ci No None Change Drop More
4 email varchar(50) latin1_swedish_ci No None Change Drop More
5 mobile varchar(15) latin1_swedish_ci No None Change Drop More
6 added_on datetime No None Change Drop More
Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext
Print Propose table structure Move columns Normalize
Add 1 column(s) after added_on Go
Indexes
Action Keyname Type Unique Packed Column Cardinality Collation Null Comment
Edit Rename Drop PRIMARY BTREE Yes No id 2 A No
Create an index on 1 columns Go
Partitions
Partitioning defined!
Partition table
Information
Data 16.0 KiB
Index 0 B
Overhead 0 B
Effective 16.0 KiB
Total 16.0 KiB
Optimize table
Space usage
Format dynamic
Collation latin1_swedish_ci
Next autoindex 3
Creation May 17, 2022 at 11:27 AM
Last update May 18, 2022 at 04:42 PM
Last check May 18, 2022 at 04:42 PM
Row statistics

5.5 Admin Panel Of Website

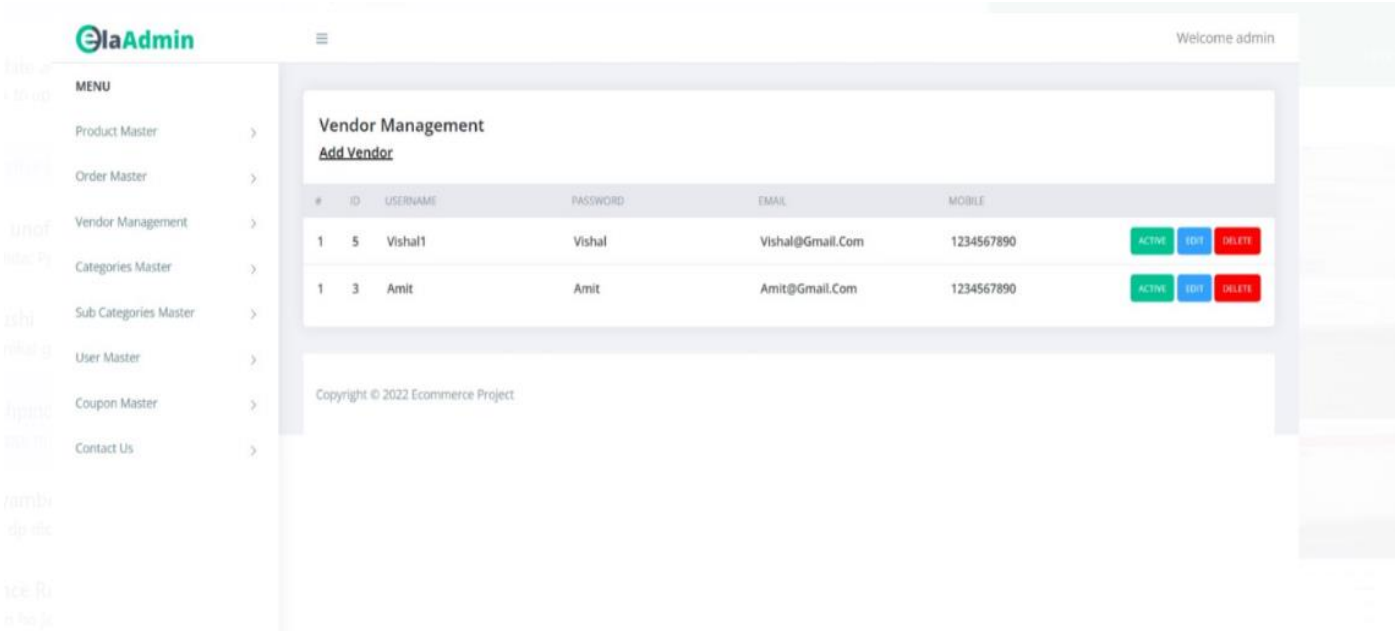
5.5.1 Sub-Categories



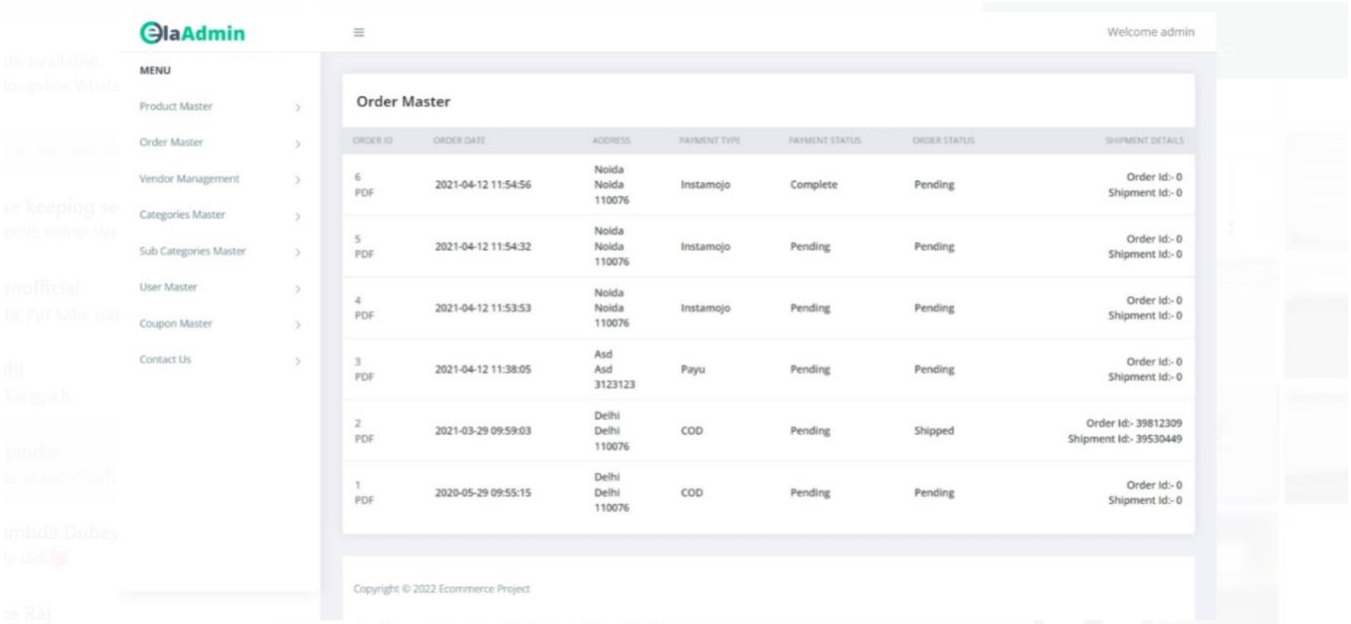
5.5.2 Categories



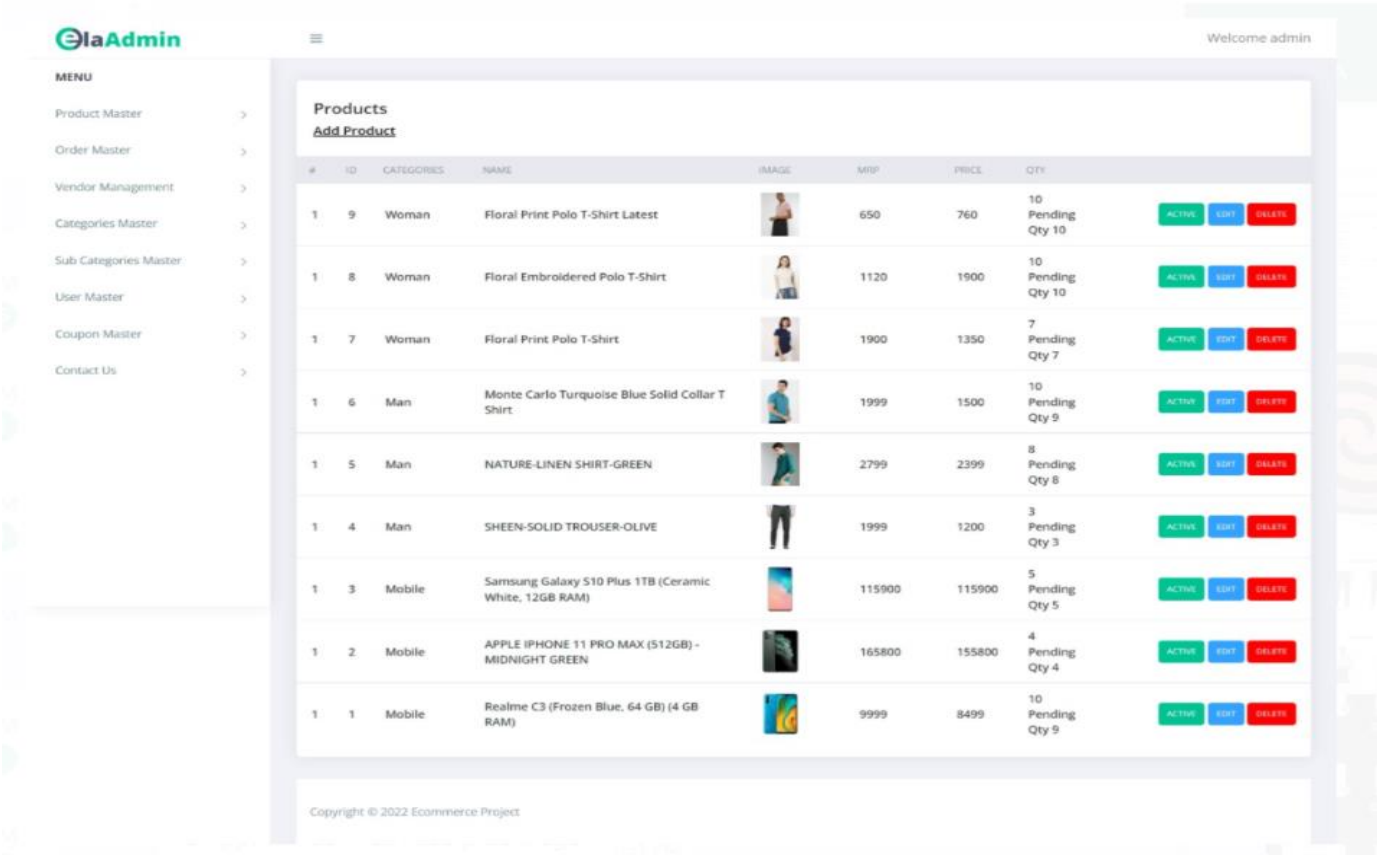
5.5.3 Vendor Management



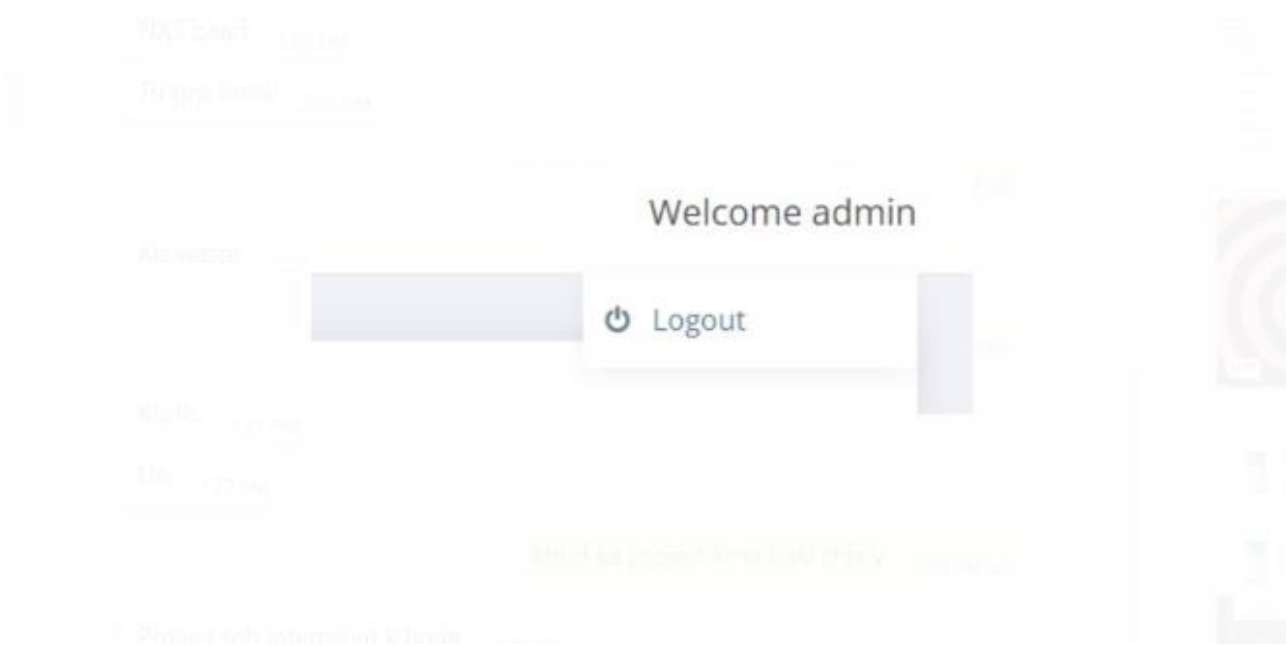
5.3.4 Order Master



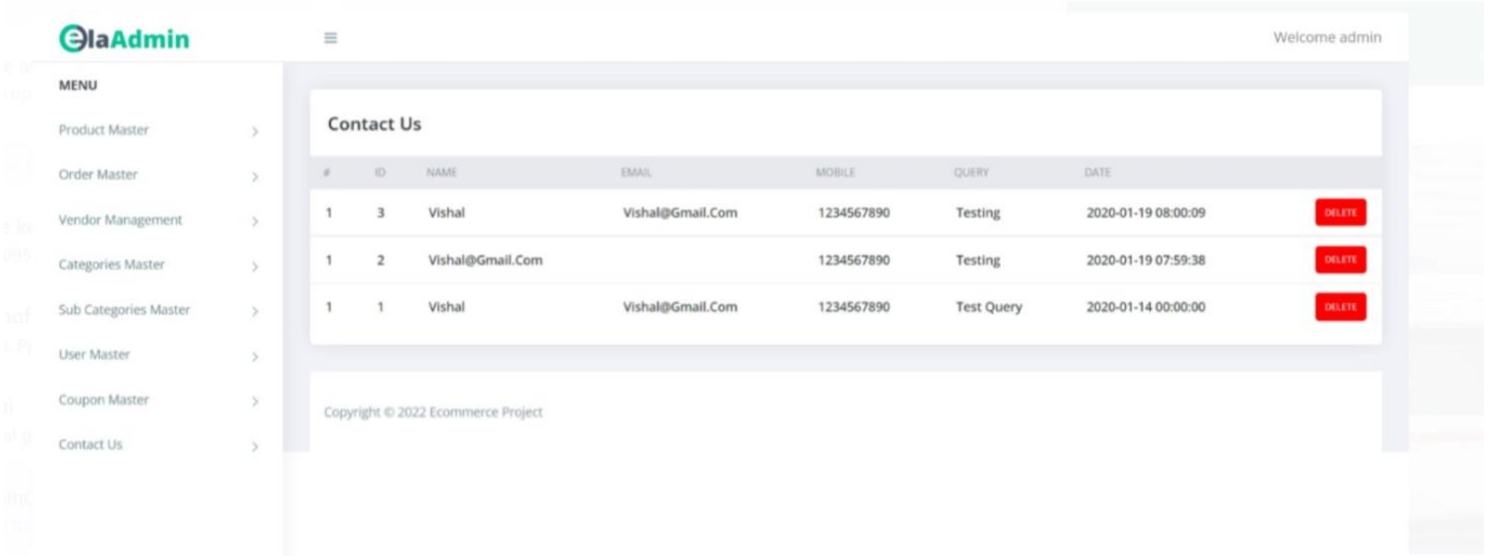
5.5.5 Products



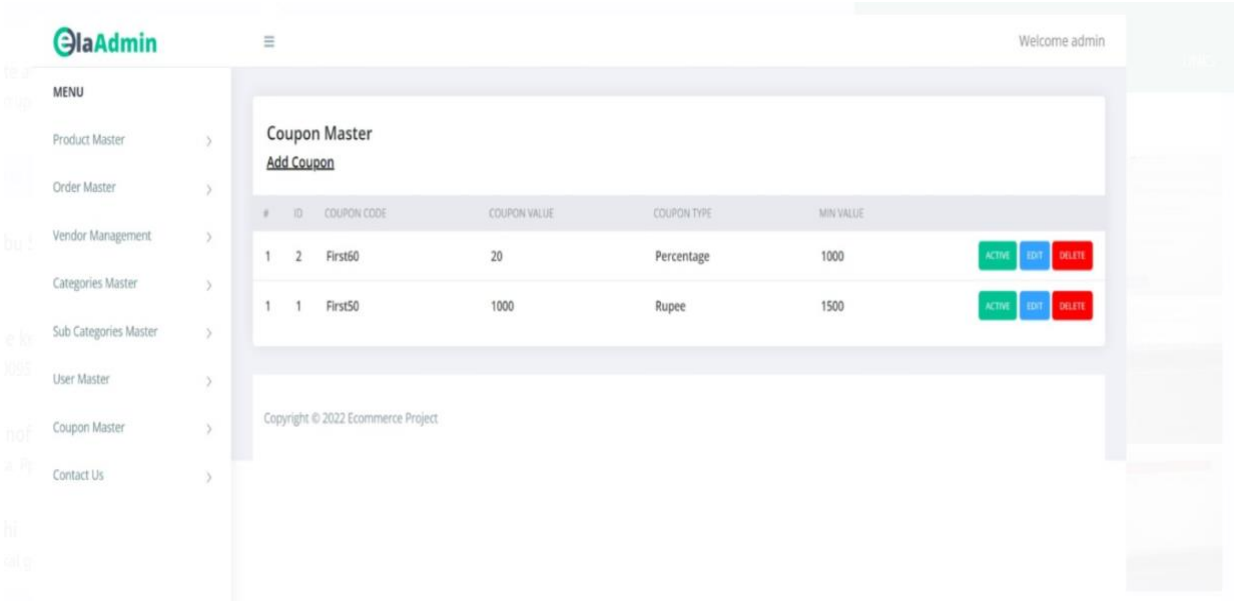
5.5.6 Log out Option



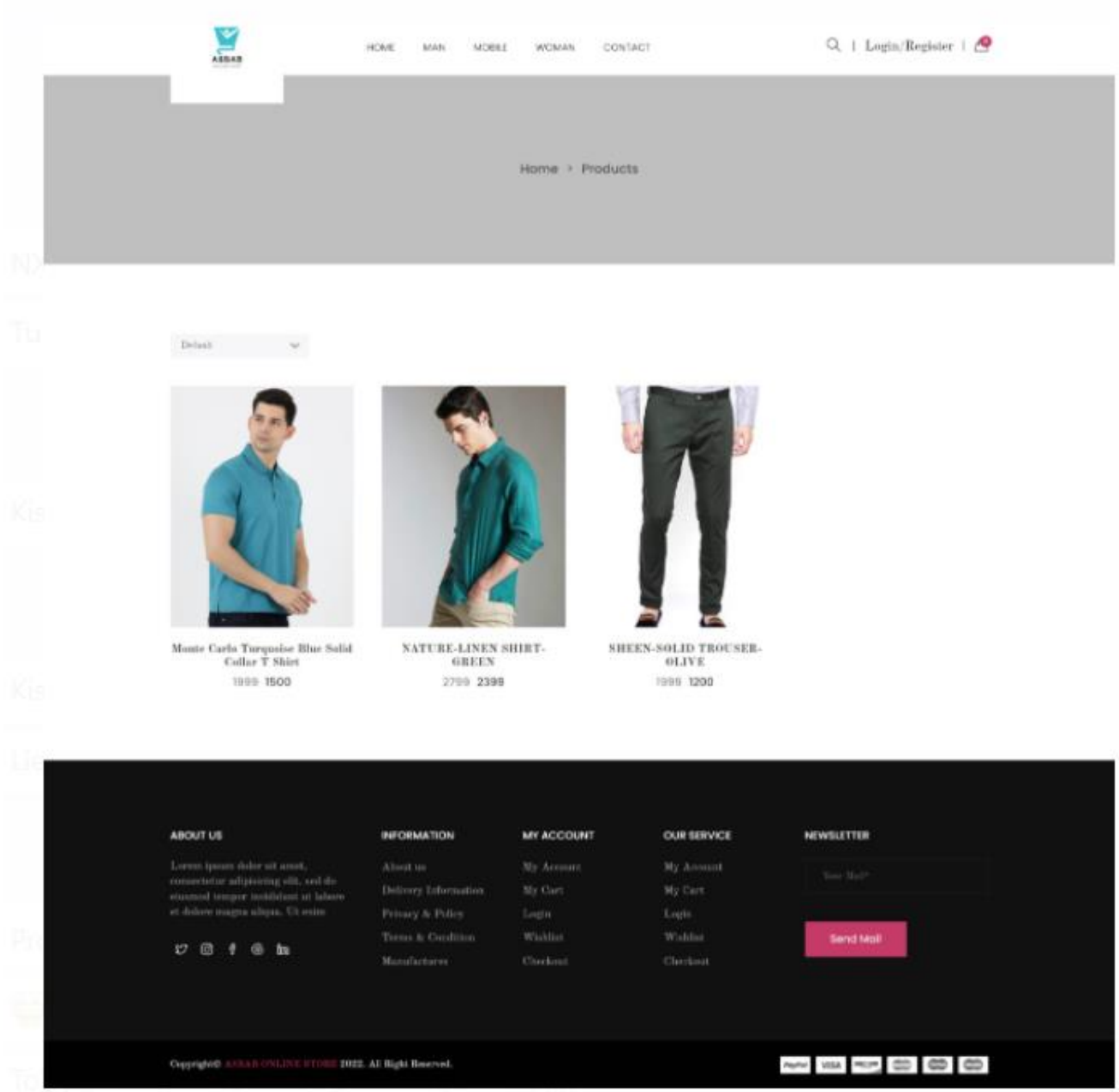
5.5.7 Contact Us



5.5.8 Coupon Master



5.5.9 Home Page Of the Website


HOME
MAN
MOBILE
WOMAN
CONTACT
Login/Register
Home > Products
Default
Monte Carlo Turquoise Blue Solid Collar T Shirt
1999 1500
NATURE-LINEN SHIRT-GREEN
2799 2399
SHEEN-SOLID TROUSER-OLIVE
1999 1200
ABOUT US
INFORMATION
About us
Delivery Information
Privacy & Policy
Terms & Condition
Manufacturer
MY ACCOUNT
My Account
My Cart
Login
Wishlist
Checkout
OUR SERVICE
My Account
My Cart
Login
Wishlist
Checkout
NEWSLETTER
Send Mail
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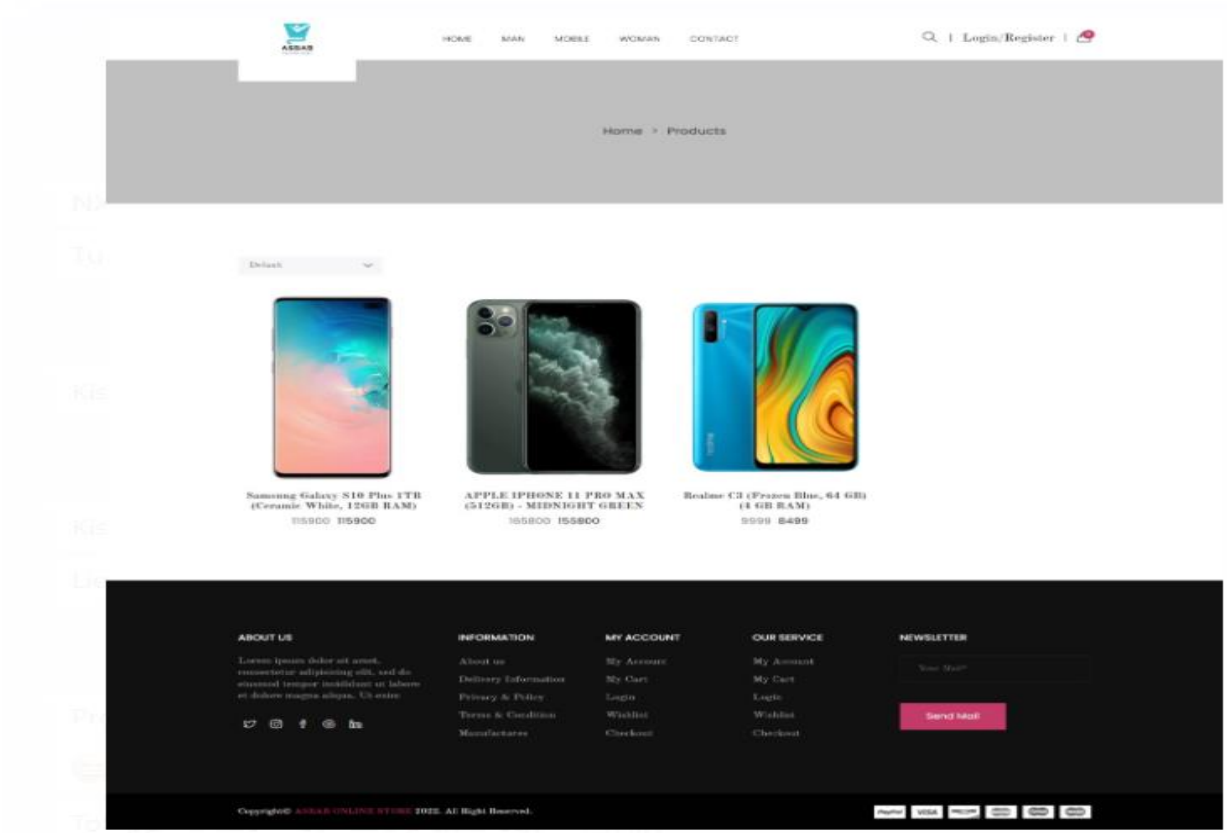
HOME
MAN
MOBILE
WOMAN
CONTACT
Login/Register
Home > Products
Default
Samsung Galaxy S10 Plus 1TB (Ceramic White, 12GB RAM)
115900 115900
APPLE IPHONE 11 PRO MAX (512GB) - MIDNIGHT GREEN
165800 155800
Realme C3 (Frozen Blue, 64 GB) (4 GB RAM)
9999 8499
ABOUT US
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim
INFORMATION
About us
Delivery Information
Privacy & Policy
Terms & Condition
Manufacturer
MY ACCOUNT
My Account
My Cart
Login
Wishlist
Checkout
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My Account
My Cart
Login
Wishlist
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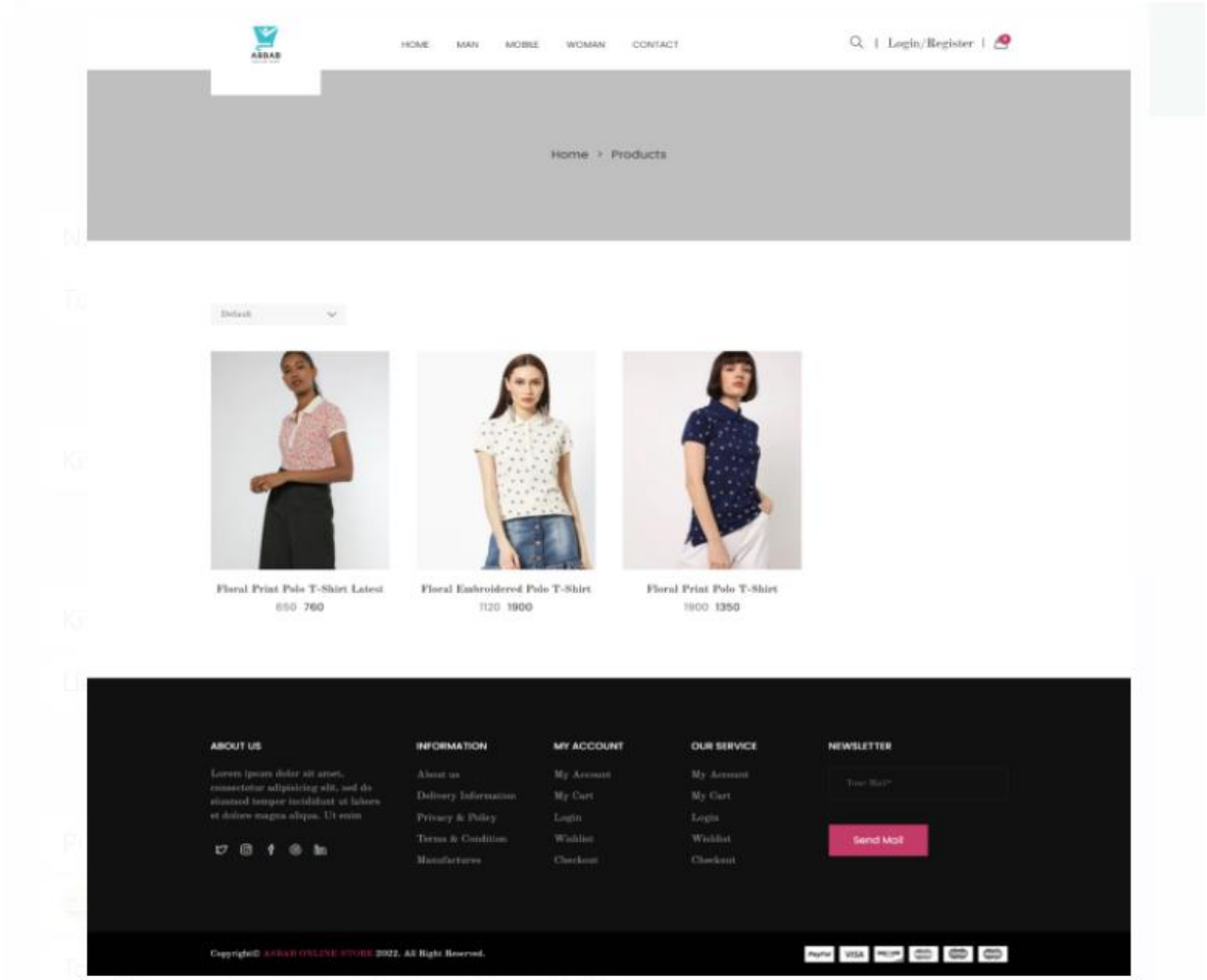
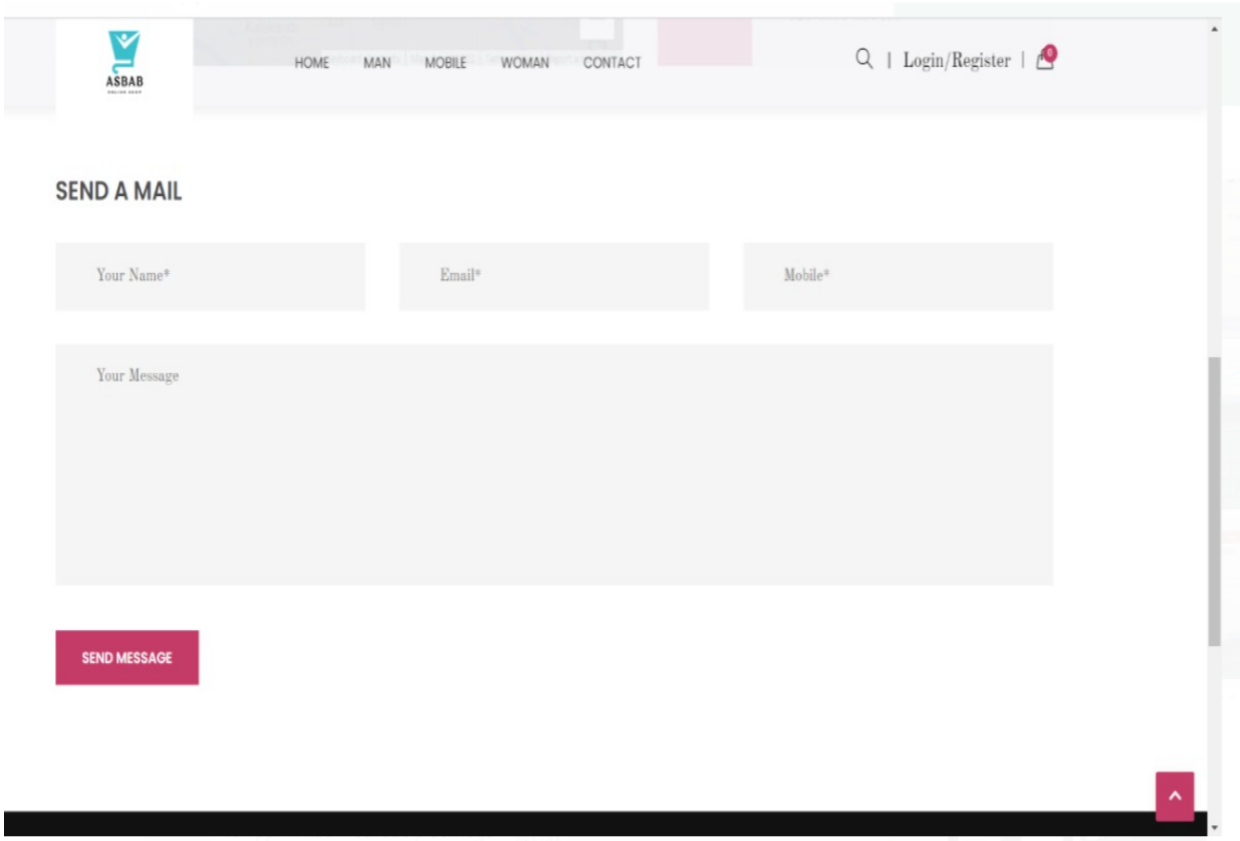
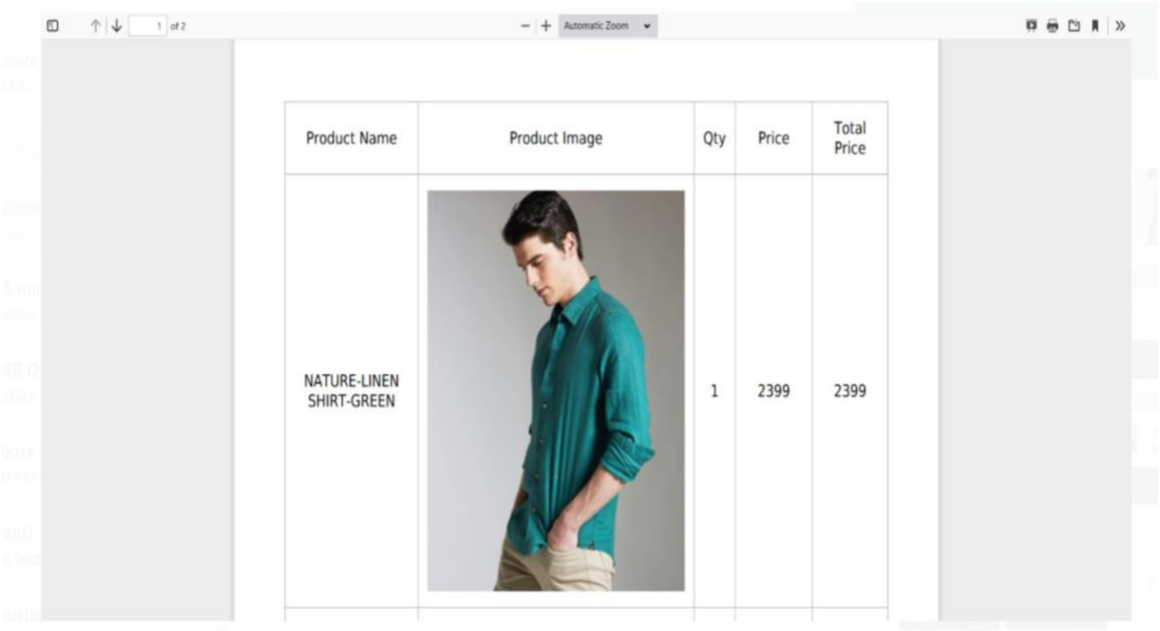


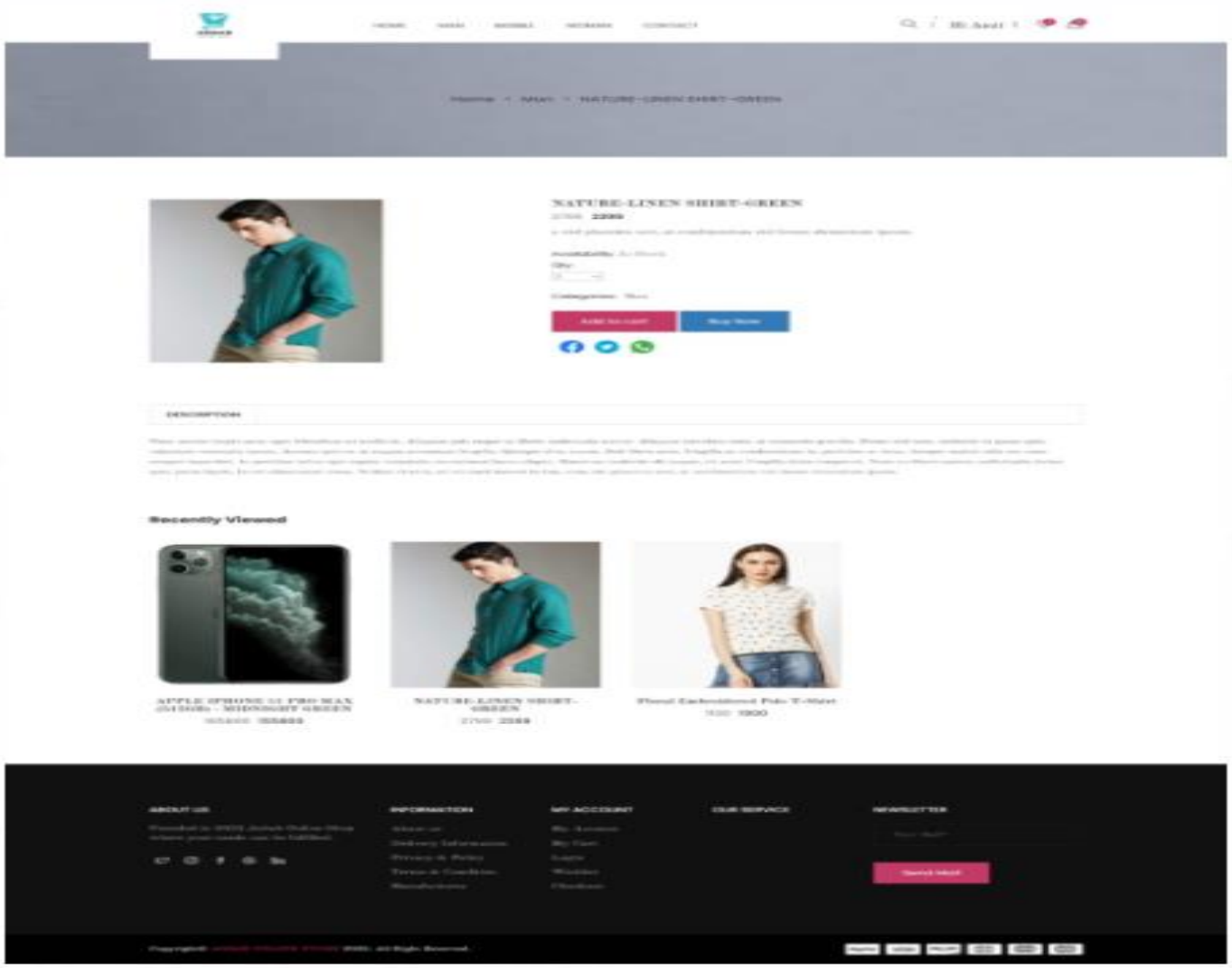
5.5.9 Sending Email Option



5.5.10 All Details of Product



5.5.11 Adding Product to the cart


NATURE-LINEN SHIRT-GREEN
DESCRIPTION
Recently Viewed

Chapter Seven

Software Testing

- **Why Software Testing is Needed**

Tool-bars work properly? Are all menu function and pull down sub function properly listed? Is it possible to invoke each menu function using a logical assumptions that if all parts of the system are correct, the goal will be successfully achieved? In adequate testing or non-testing will leads toerrors that may appear few months later. Testing represents an interesting anomaly for the softwareengineer. During earlier software engineering activities, the engineer attempts to build software from an abstract concept to a tangible product. Now comes testing. The engineer creates a series oftest cases that are intended to "demolish" the software that has been built. In fact, testing is the onestep in the software process that could be viewed (psychologically, at least) as destructive rather than constructive. Testing requires that the developer discard preconceived notions of the "correctness" of software just developed and overcome a conflict of interest that occurs when errorsare uncovered.

If testing is conducted successfully (according to the objectives stated previously) it will uncover errors in the software. As a secondary benefit, testing demonstrates that software functions appear to be working according to specification, that behavioral and performance requirements appear to have been met. In addition, data collected as testing is conducted provide a good indication of software reliability and some indication of software quality as a whole. But testing cannot show the absence of errors and defects, it can show only that software errors and defects are present. It is important to keep this (rather gloomy) statementin mind as testing is being conducted.

- **Testing Strategy**

There are types of testing that we implement. They are as follows:

While deciding on the focus of testing activities, study project priorities. For example, for an on- line system, pay more attention to response time. Spend more time on the features used frequently.Decide on the effort required for testing based on the usage of the system. If the system is to be used by a large number of users, evaluate the impact on users due to a system failure before decidingon the effort.

This create two problem

6. Time delay between the cause and appearance of the problem.
7. The effect of the system errors on files and records within the system.

The purpose of the system testing is to consider all the likely variations to which it will be suggestedand push the systems to limits. The testing process focuses on the logical intervals of the softwareensuring that all statements have been tested and on functional interval is conducting tests to

uncover errors and ensure that defined input will produce actual results that agree with the requiredresults. Program level testing, modules level testing integrated and carried out.

There are two major type of testing they are:

8. White Box Testing.
9. Black Box Testing.

- **White Box Testing**

White box sometimes called “Glass box testing” is a test case design uses the control structure of the procedural design to drive test case. Using white box testing methods, the following tests wheremade on the system

- All independent paths within a module have been exercised once. In our system, ensuring that case was selected and executed checked all case structures. The bugs that were prevailing in some part of the code where fixed
- All logical decisions were checked for the truth and falsity of the values.

- **Black Box Testing**

Black box testing focuses on the functional requirements of the software. This is black box testingenables the software engineering to derive a set of input conditions that will fully exercise all functional requirements for a program. Black box testing is not an alternative to white box testingrather it is complementary approach that is likely to uncover a different class of errors that white box methods like.

10. Interface errors.
11. Performance in data structure.
12. Performance errors.
13. Initializing and termination errors.

Chapter Eight

Conclusion & Future Enhancement

8.1 Conclusion

This project is only a humble venture to satisfy the needs in a shop. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the organization. The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

This website provides a computerized version of shop manipulate system which will benefit theusers as well as the visitor of the shop. It makes entire process online where users can search product, and buy various product. It also has a facility for common user by login into the systemwhere user can login and can see status of ordered item as well request for items or give somesuggestions. It provide the facility of admin's login where admins can add various item, reviewusers activity and also give occasional discount and also add info about different events for thecustomer.

8.1 Future aspect

The project has a very vast scope in future. The project can be implemented on intranet in future. Project can be updated in near future as and when requirementfor the same arises, as it is very flexible in terms of expansion. With the proposed software of database Space Manager ready and fully functional the client is nowable to manage and hence run the entire work in a much better, accurate and errorfree manner.

The following are the future scope for the project.

Should be added payment gateway
Can be added inventory management system
Can be added multiple branches
Can be added multilingual to this site
And many features can be added this project to make it more robust.

References

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3) https://www.ikea.com/in/en/
4) https://www.w3schools.com/php/
5) https://serverguy.com/ecommerce/php-open-source-ecommerce-platforms/