DEVELOPMENT OF WEBAPPLICATION FOR REGIONAL FAIR

Project Report Submitted to

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

for the award of the degree of

MASTER OF COMPUTER APPLICATIONS

by

THURBILLI KARTHIK

Reg.No:2182951042

Under the esteemed guidance of

Mr. D. DASU

Assistant Professor

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

AKNU COLLEGE OF ENGINEERING

ADIKAVI NANNAYA UNIVERSITY

2021 – 2023

ADIKAVI NANNAYYA UNIVERSITY

RAJAMAHENDRAVARAM

AKNU COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that this project report entitled, **"DEVELOPMENT OF WEB APPLICATION FOR REGIONAL FAIR"** submitted by **THURBILLI KARTHIK**, Reg.No:**2182951042** to the **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, AKNU COLLEGE OF ENGINEERING, ADIKAVI NANNAYA UNIVERSITY,** Rajamahendravaram is a record of bonafide project work carried out by him under my supervision and guidance and worth of consideration for the award of degree of Master of Computer Applications.

Internal Guide **Head of the Department** **External Examiner**

DECLARATION

I declare that…

a) The work contained in this report is original and has been done by me under the guidance of my supervisor(s).

b) The work has not been submitted to any other Institute for any degree or diploma.

c) I have followed the guidelines provided by the university in preparing the report.

d) I have conformed to the norms and guidelines given in the Ethical Code of Conduct of the institute.

e) Whenever I have used materials (data, theoretical analysis, figures, and text) from other sources, I have given due credit to them by citing them in the text of the report and giving their details in the references. Further, I have taken permission from the copyright owners of the sources, whenever necessary.

Signature of the student

ACKNOWLEDGEMENTS

I feel fortunate to pursue my **Master of Computer Applications** from the campus **Adikavi Nannaya University, Rajamahendravaram.** It provided all the facilities in the areas of Computer Science and Engineering.

It's a genuine pleasure to express my deep sense of thanks and gratitude to my mentor and project guide **Mr. D. Dasu, Assistant Professor, Department of CSE, AKNU College Engineering.** Whose valuable guidance has been the ones that helped me patch this project and his instructions has served as the major contributor towards the completion of the project.

I profusely thank **Dr. P. Venkateswara Rao, Principal, AKNU College of Engineering** for all the encouragement and support.

I also thank **Dr. B. Kezia Rani, Head of the Department, Department of Computer Science and Engineering** for the guidance throughout the academics**.**

I am extremely thankful to our **Project Coordinator, Dr. D Latha** who has been a source of inspiration for me throughout my project and for their valuable advices in making my project a success.

A great deal of thanks goes to **Review Committee Members** and the entire **Faculty of CSE Department, AKNU College of Engineering, Adikavi Nannaya University, Rajamahendravaram** for their excellent supervision and valuable suggestions.

I am always thankful to my family, friends and well-wishers for all their trust and constant support in the successful completion of my project.

THURBILLI KARTHIK

REG NO: 2182951042

ABSTRACT

E-commerce has revolutionized the way people buy and sell products and services, and the building materials industry is no exception. E-commerce platforms for building materials allow customers to browse a catalogue of products and find exactly what they need, like cement, iron, bricks materials. Even then customers are preferring for an online source. Now my idea in this project that it will help the customers to find the products at reasonable prices in their local regions which can ensure the trust in them.

Convenience and ease of use: E-commerce platforms enable customers to purchase building materials from the comfort of their own homes or offices, saving them time and effort.

Lower prices: E-commerce platforms often offer competitive prices for building materials, as they can source products from multiple areas.

Sustainability: E-commerce platforms for building materials can help to reduce the carbon footprint of the construction industry, as they enable customers to order products online and have them delivered directly to the construction site, rather than having to transport them from a physical store.

Keywords: Accessible, E-commerce, Carbon footprint, Sustainability, Regions.

INDEX

LIST OF FIGURES

LIST OF TABLES

CHAPTER-1
INTRODUCTION

1.1 INTRODUCTION OF E-COMMERCE

Electronic Commerce (E-Commerce) is a revolutionary approach to construction materials procurement. E- Commerce has been widely acknowledged to breach the boundaries of time and distance; expand and modify the scope of business operations; and increase the level of competitiveness amongst building contractors by drastically reducing the cost of building production. To buttress this, added that the advent of e-commerce has enabled organizations in the construction industry achieve greater economic results faster and easily through tactical and strategic operations.

The concept of electronic commerce has very much been in existence since the late 1960s in various forms such as Electronic Data Interchange (EDI), Electronic tendering (e- tending), Electronic mails (e-mails), Electronic procurement (e-procurement), e-commerce is a platform for the exchange of construction project information between individuals who are geographically dispersed through the aid of internet services.

The review of the evolution of the process of electronic commerce in the construction industry reveal that the adoption of the electronic approach in the acquisition of construction materials for sustainable building production is a bid to improve the traditional procurement method to ensure productivity, accountability and value for money.

E-Commerce is presently an essential ingredient of India's trade facilitation policy. Since1991, after economic reforms explicitly took place in India, the need to facilitate international trade both through policy and procedure reforms has become the foundation stone of India's trade and fiscal policies.

Resultantly, a technological revolution accompanied by the wide spread use of the Internet, web technologies and their applications took place. E-Commerce has changed and is still changing the way business is conducted around the world. When it comes to starting an online business, you have a lot of choices to make. The biggest of the choices may be the most important as they will ultimately define your business model and much of the future of your business. Creating an e-commerce solution mainly involves creating and deploying an e-commerce site. The first step in the development of an ecommerce site is to identify the e-commerce model. Depending on the parties involved in the transaction, e-commerce can vary greatly in terms of how they provide value to and earn income from consumers.

E-Commerce is presently an essential ingredient of India's trade facilitation policy. Since 1991, after economic reforms explicitly took place in India, the need to facilitate international trade both through policy and procedure reforms has become the foundation stone of India's trade and fiscal policies. Resultantly, a technological revolution accompanied by the wide spread use of the Internet, web technologies and their applications took place. E-Commerce has changed and is still changing the way business is conducted around the world. When it comes to starting an online business, you have a lot of choices to make. The biggest of the choices may be the most important as they will ultimately define your business model and much of the future of your business. Creating an e-commerce solution mainly involves creating and deploying an e-commerce site. The first step in the development of an ecommerce site is to identify the e-commerce model. Depending on the parties involved in the transaction, e-commerce can vary greatly in terms of how they provide value to and earn income from consumers.

One of the most important aspects of having your own website is that you can market directly to website visitors and customers. Unlike marketplaces, where people who buy your product are the customers of the marketplace, selling directly to consumers on your website means you get to collect their contact information. When you have your customers' email addresses, you can send them email marketing promotions, offer discounts, and announce new products.

Getting repeat buyers is much more difficult on a marketplace, because you don't have direct access to your customers. This gives you fewer opportunities to provide good customer service and promote your other products. Since it's easier and cheaper to retain a customer than it is to get a new one, communicating with existing customers is a necessary part of generating revenue for your business.

Not only do you know who has bought from you in the past, but you also know what they bought, how much they spent, and what they are interested in. You can use this information to influence and suggest future purchases.

CHAPTER-2

PROBLEM SPECIFICATION

2.1 EXISTING SYSTEM

The existing system consists of Current materials management practices in the construction industry are performed on fragmented basis with unstructured communication and no clearly established responsibilities between the parties involved.

The highly fragmentation is a result of the separation of design and construction, lack of coordination and integration between various functional disciplines, poor communication, etc.

DISADVANTAGES

- Can't get correct prices.
- Time taken process
- Loss the money and increases overheads

2.2 PROPOSED SYSTEM

The aim of this application is to develop a framework for the best practice of material supply chain process through the project phases that suits the local construction industry in order to help customers to have the right materials in the right quantities (at the right place) at the right moment at minimal cost so they can improve their productivity, minimize losses and increase competitiveness

ADVANTAGES

- Simple and easy to operate.
- Mobile access, anytime, anywhere.
- Saves time/money and reduces overheads.

2.3 HARDWARE REQUIREMENTS

The Hardware consists of the physical components of the computer that input storage processing control, output devices. Most hardware only has operating system requirements or compatibility. For example, a printer may be compatible with Windows XP but not compatible with newer versions of Windows like Windows 10, Linux, or the Apple MacOS.

The kind of hardware used in the project is:

Processor: i3/i5.

RAM: 8 GB.

Hard Disk: 1 TB.

2.4 SOFTWARE REQUIREMENTS

Software is a set of programs to do a particular task. Software is an essential requirement of computer systems. The system requirements or software requirements is a listing of what software programs are required to operate the program properly.

The kind of software used in the project is:

Operating system: Windows 11

Programming language: HTML, CSS, JavaScript, PHP.

IDE: Visual Studio.

Frame work: jQuery.

Softwares: WAMP/ XAMPP.

Libraries: Paytm Payment Gateway, Tawk.to.

Server: Apache.

Database: MySQL.

Other Requirements: Any web browser.

2.5 VISUAL STUDIO

Microsoft Visual Studio is an IDE made by Microsoft and used for different types of software development such as computer programs, websites, web apps, web services, and mobile apps. It contains completion tools, compilers, and other features to facilitate the software development process.

What Is Ide?

Integrated development environments (IDE) are applications that facilitates the development of other applications. Designed to encompass all programming tasks in one application, one of the main benefits of an IDE is that they offer a central interface with all the tools a developer needs, including:

- **Code editor:** Designed for writing and editing source code, these editors are distinguished from text editors because work to either simplify or enhance the process of writing and editing of code for developers
- **Compiler:** Compilers transform source code that is written in a human readable/writable language in a form that computers can execute.
- **Debugger:** Debuggers are used during testing and can help developers debug their application programs.
- **Build automation tools:** These can help automate developer tasks that are more common to save time.

2.5.1 History of Visual Studio

Visual Studio has been around for over 20 years. Its first version was Visual Studio 97. Since then, there were a lot of different versions, the current one is Microsoft Visual Studio 2019.

2.5.2 How Does it Works?

The Visual Studio IDE (integrated development environment) is a software program for developers to write and edit their code. Its user interface is used for software development to edit, debug and build code. Visual Studio includes a code editor supporting IntelliSense (the code completion component) as well as code refactoring. The integrated debugger works both as a source-level debugger and a machine-level debugger. Other built-in tools include a code profiler, designer for building GUI applications, web designer, class designer, and database schema designer.

Advantages

- For C++ it's one of the best IDEs and it supports many languages.
- Many extensions.
- Has a free version.
- Used by a lot of developers.

Is visual studio free?

The basic community edition is free. It's a "fully-featured, extensible, free IDE for creating modern applications for Android, IOS, Windows, as well as web applications and cloud services". It's for "students, open-source and individual developers".

2.5.3 Installation of Visual Studio

Step 1 - Make sure your computer is ready for Visual Studio Before you begin installing Visual Studio:

- Check the system requirements. These requirements help you know whether your computer supports Visual Studio 2022.
- Apply the latest Windows updates. These updates ensure that your computer has both the latest security updates and the required system components for Visual Studio.
- Reboot. The reboot ensures that any pending installs or updates don't hinder your Visual Studio install.
- Free up space. Remove unneeded files and applications from your system drive by, for example, running the Disk Clean-up app.

Step 2 - Download Visual Studio

Next, download the Visual Studio bootstrapper file.

To do so, select the following button, choose the edition of Visual Studio that you want, and then save to your Downloads folder. **Step 3 - Install the Visual Studio Installer**

Run the bootstrapper file to install the Visual Studio Installer. This new lightweight installer includes everything you need to both install and customize Visual Studio.

From your Downloads folder, double-click the bootstrapper that matches or is similar to one of the following files:

- **vs_community.exe** for Visual Studio Community
- **vs_professional.exe** for Visual Studio Professional
- **vs_enterprise.exe** for Visual Studio Enterprise If you receive a User Account Control notice, choose Yes.

They ask you to acknowledge the Microsoft licence terms and the Microsoft privacy statement. Choose Continue.

Fig 2.5.31. visual studio installer.

Step 4 - Choose workloads

After the installer is installed, you can use it to customize your installation by selecting the feature sets—or workloads—that you want. Here's how.

Select the workload you want in the Visual Studio Installer.

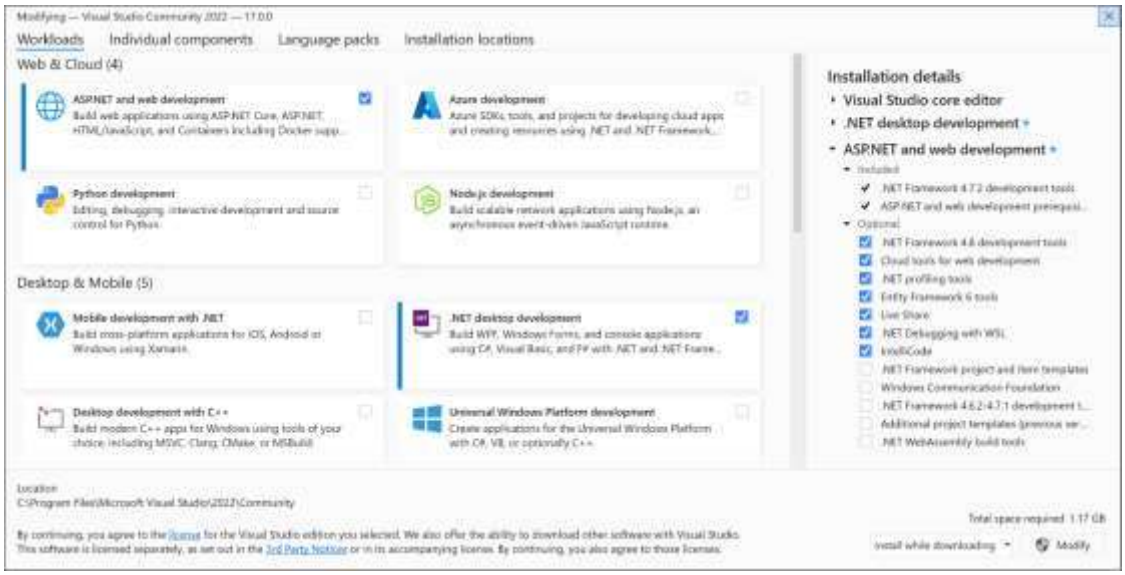


Fig2.5.3.2. select the workload.

Review the workload summaries to decide which workload supports the features you need. For example, choose the ASP.NET and web development workload to edit ASP.NET Web pages with Web Live Preview or build responsive web apps with Blazor, or choose from Desktop & Mobile workloads to develop cross-platform apps with C#, or C++ projects that target C++20.

After you choose the workload(s) you want, select Install.

Step 5 - Choose individual components (optional)

Step 6 - Install language packs (optional)

Step 7 - Select the installation location (optional) Step

8 - Start developing

- After your Visual Studio installation is complete, select the Launch button to get started developing with Visual Studio.
- On the start window, choose Create a new project.
- In the template search box, enter the type of app you want to create to see a list of available templates. The list of templates depends on the workloads that you chose during installation. To see different templates, choose different workloads.

2.6 FUNCTIONAL AND NON-FUNCTIONAL REQUIREMENTS

Requirements analysis is very critical process that enables the success of a system or software project to be assessed. Requirements are generally split into two types*:* Functional and Non-functional requirements.

2.6.1 Functional Requirements

These are the requirements that the end user specifically demands as basic facilities that the system should offer. All these functionalities need to be necessarily incorporated into the system as a part of the contract. These are represented or stated in the form of input to be given to the system, the operation performed and the output expected. They are basically the requirements stated by the user which one can see directly in the final product, unlike the nonfunctional requirements.

Functionalities of Seller

Seller plays a main role in this project. The complete monitoring access is given to the admin/librarian only. The seller can be able to maintain all the data that includes information about users, number of orders delivered, number of products in the having in website. He/she will be provided with the following services:

- **Functionalities of Seller**
- Seller has to register.
- Developer gives admin rights to seller.
- Login: after the email verification the vendor can be able to perform operations (like add, update, delete on their products sheet).
- Manage the password.
- Seller Can reply to Customer s queries on website messenger.

- Seller receives the payments using payment gateway
- View the data pervious orders, payments, and view the Customer ’s data.
- Logout.

Functionalities of Customer

Customer can be able to know the availability of required products. A customer can view the details of the product, and the system will display the last date of transactions.

- Here the Customer has to register.
- Login after the email verification gives access to the customer.
- Before the Login the customer can view the products catalogue.
- Customer s can ask the quires using website messenger and call/Email option.
- Based on Location Selected product rates will be displayed.
- Customer can order/checkout the products.
- Customer can pay for the products using UPI in website.
- Customer can view all the orders, payment status and their profile.
- Logout.

2.6.2 Non-Functional Requirements

These are basically the quality constraints that the system must satisfy according to the project contract. The priority or extent to which these factors are implemented varies from one project to other. They are also called non-behavioural requirement.

- **Security**: The system would provide access to only legitimate users. It will be secure on network and only authorized person can use it.
- **Ease of Use**: The proposed system would be user-friendly and would provide Graphical User Interface (GUI).
- **Accessibility**: The proposed system would be GUI-based desktop application installed on computing root node (server) running the application.
- **Maintainability**: The proposed system would be easy to maintain and extend. Minor modification to the system would not cause harm to the running application.

CHAPTER-3
SYSTEM ANALYSIS AND DESIGN

Systems development is systematic process which includes phases such as planning, analysis, design, deployment, and maintenance.

- System analysis
- System design

3.1 SYSTEM ANALYSIS

It is a process of collecting and interpreting facts, identifying the problems, and decomposition of a system into its components.

System analysis is conducted for the purpose of studying a system or its parts in order to identify its objectives. It is a problem-solving technique that improves the system and ensures that all the components of the system work efficiently to accomplish their purpose.

- Analysis specifies what the system should do.

3.2 SYSTEM DESIGN

It is a process of planning a new business system or replacing an existing system by defining its components or modules to satisfy the specific requirements. Before planning, you need to understand the old system thoroughly and determine how computers can best be used in order to operate efficiently.

- System Design focuses on how to accomplish the objective of the system. **System Analysis and Design** (SAD) mainly focuses on −
  - Systems
  - Processes
  - Technology

3.3 SYSTEM ARCHITECTURE

The system architecture is a conceptual model that defines the structure, behaviour and more views of a system. An architecture description is a formal description and representation of a system, organized in a way that supports reasoning about the structures and behaviours of the system.

The below figure describes the interaction between client and server. The client requests the server for data. Server responds to it and sends data to client.

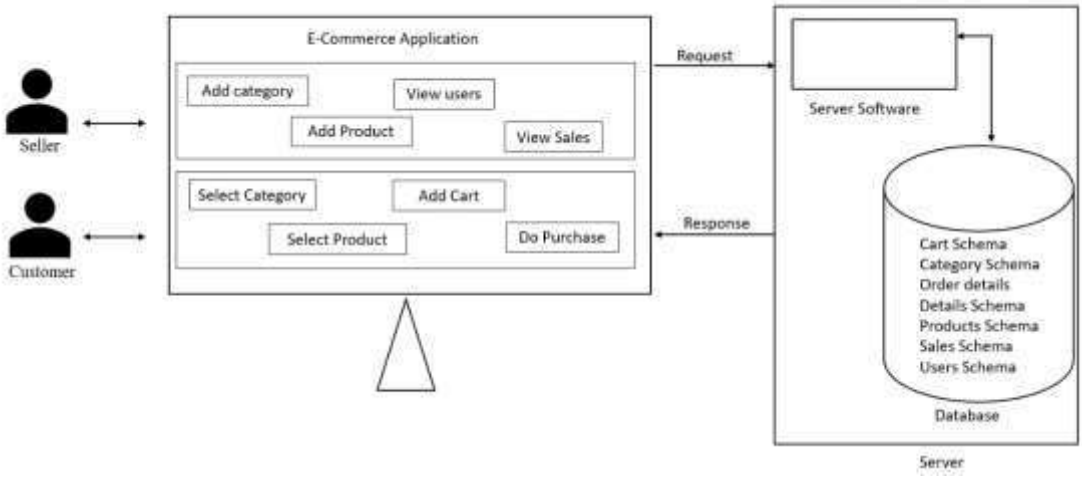


Fig 3.3.1. Architecture of E-Commerce

3.4 UML DIAGRAMS

The unified modelling language allows the software engineer to express an analysis model using the modelling notation that is governed by a set of syntactic semantic and pragmatic rules.

A UML system is represented using five different views that describe the system from distinctly different perspective. Each view is defined by a set of diagrams, which is as follows. UML is a standard language for specifying, visualizing, constructing and documenting the artifacts of software system.

UML was created by object management group (OMG) and UML 1.0 specification draft was proposed to the OMG in January 1997.

OMG is continuously putting effort to make a truly industry standard.

- UML stands for Unified Modelling Language.
- UML is a pictorial language used to make software blue prints.

So, UML can be described as a general-purpose visual modelling language to visualize, specify, construct and document software system. Although UML is generally used to model software systems but it is not limited within this boundary. It is also used to model non software systems as well like process flow in a manufacturing unit etc.

UML is not programming language but tools can be used to generate code in various languages using UML diagrams. UML has a direct relation with object-oriented analysis and design. After some standardization UML is become an OMG (Object Management Group) standard.

3.4.1 Use Case Diagram

A use case diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well.

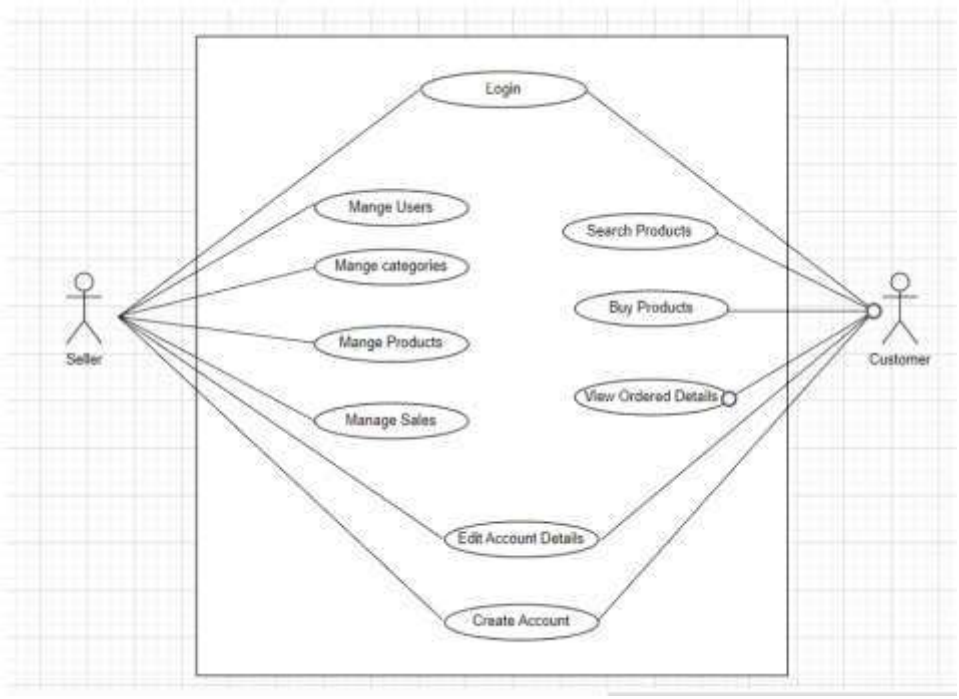


Fig 3.4.1.1 Use Case Diagram.

Use case	Description
Create Account	The seller or customer can register.
Login	The seller or customer have to login.
Edit Account Details	The seller or customer can edit the account details.
Manage Users	Seller can add/view/delete users.
Manage Categories	Seller can add/view/delete/edit categories.
Manage Products	Seller can add/view/delete/edit products
Manage Sales	Seller can view sales

Search Products	Customer can Search the products
Buy Products	Customer can buy the products
View Ordered Details	Customer can view the order details

Table 3.4.1.2 Use Case Diagram Description

3.4.2 Class Diagram

The class diagram depicts a static view of an application. It represents the types of objects residing in the system and the relationships between them. A class consists of its objects, and also it may inherit from other classes. A class diagram is used to visualize, describe, document various different aspects of the system, and also construct executable software code. It shows the attributes, classes, functions, and relationships to give an overview of the software system. It constitutes class names, attributes, and functions in a separate compartment that helps in software development.

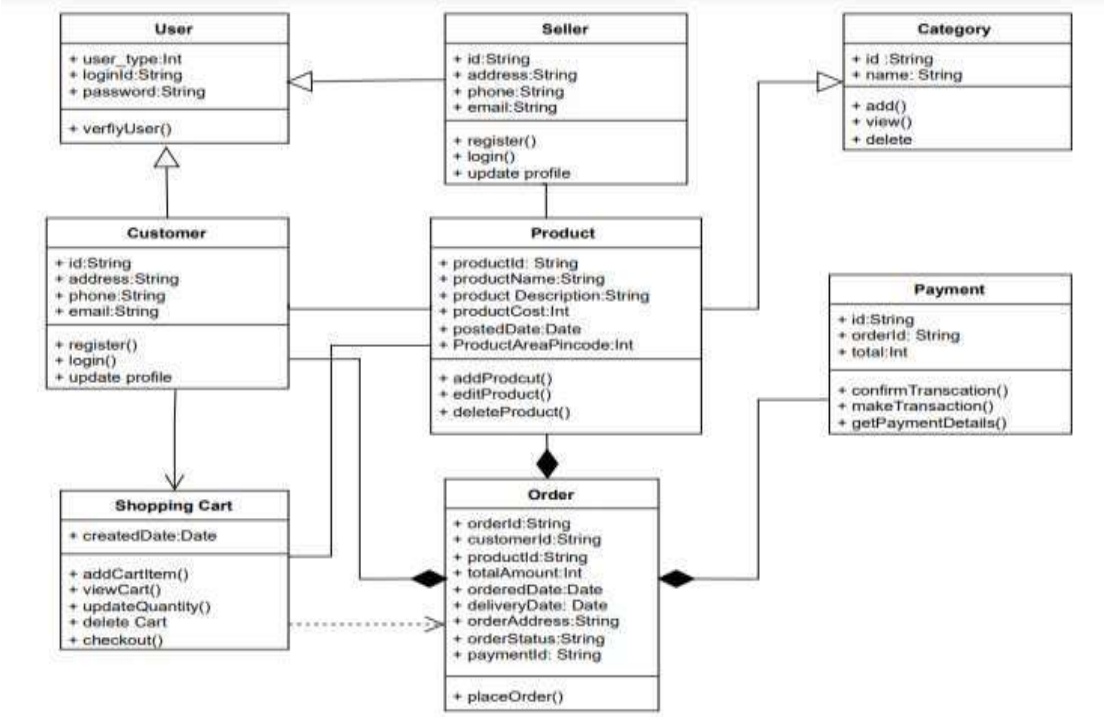


Fig 3.4.2.3 Class Diagram

3.4.3 Sequence Diagram

The sequence diagram represents the flow of messages in the system and is also termed as an event diagram. It helps in envisioning several dynamic scenarios. It portrays the communication between any two lifelines as a time-ordered sequence of events, such that these lifelines took part at the run time. In UML, the lifeline is represented by a vertical bar, whereas the message flow is represented by a vertical dotted line that extends across the bottom of the page. It incorporates the iterations as well as branching.

Sequence Diagram for Customer

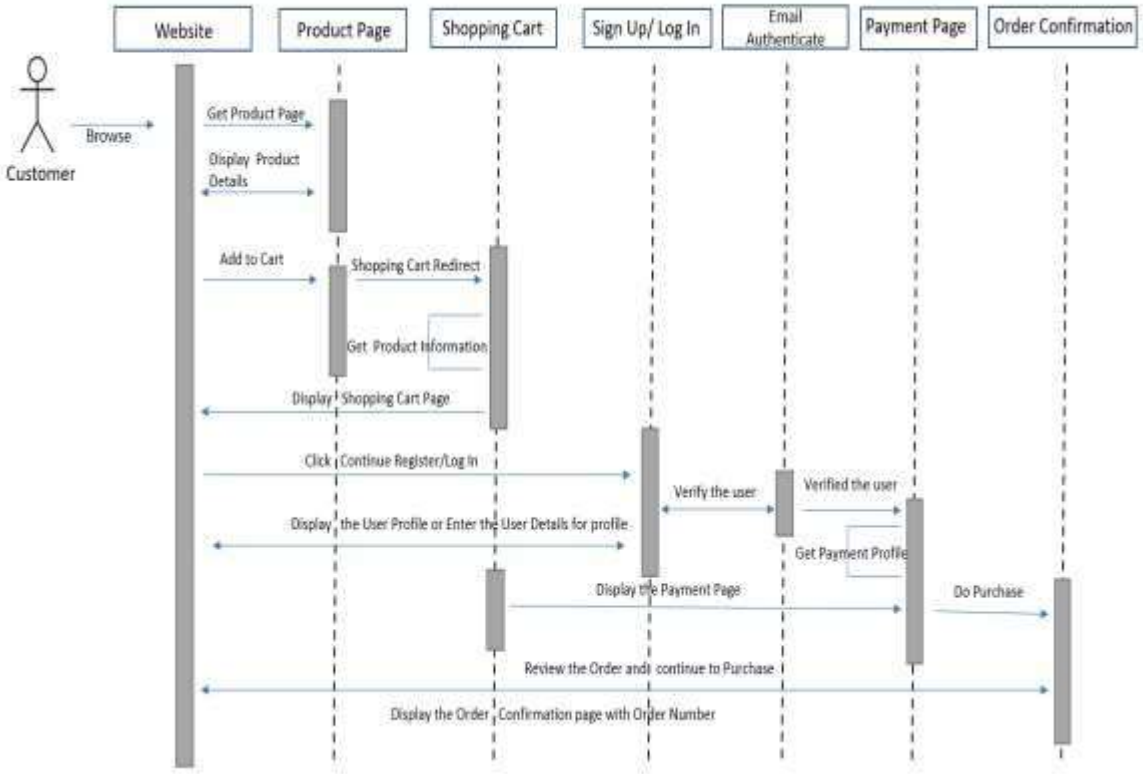


Fig 3.4.3.4 Sequence Diagram for Customer

Sequence diagram for Seller

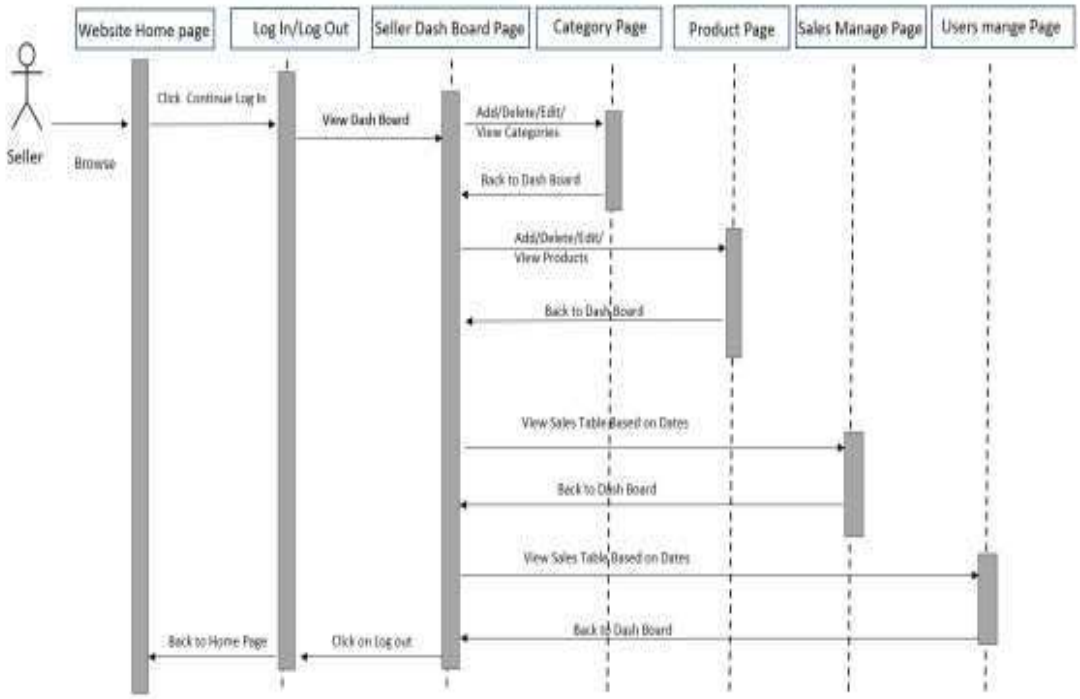


Fig 3.4.3.5 Sequence Diagram for Issuing a Book

3.4.4 Activity Diagram

The activity diagram is used to demonstrate the flow of control within the system rather than the implementation. It models the concurrent and sequential activities.

The activity diagram helps in envisioning the workflow from one activity to another. It put emphasis on the condition of flow and the order in which it occurs. The flow can be sequential, branched, or concurrent, and to deal with such kinds of flows, the activity diagram has come up with a fork, join, etc.

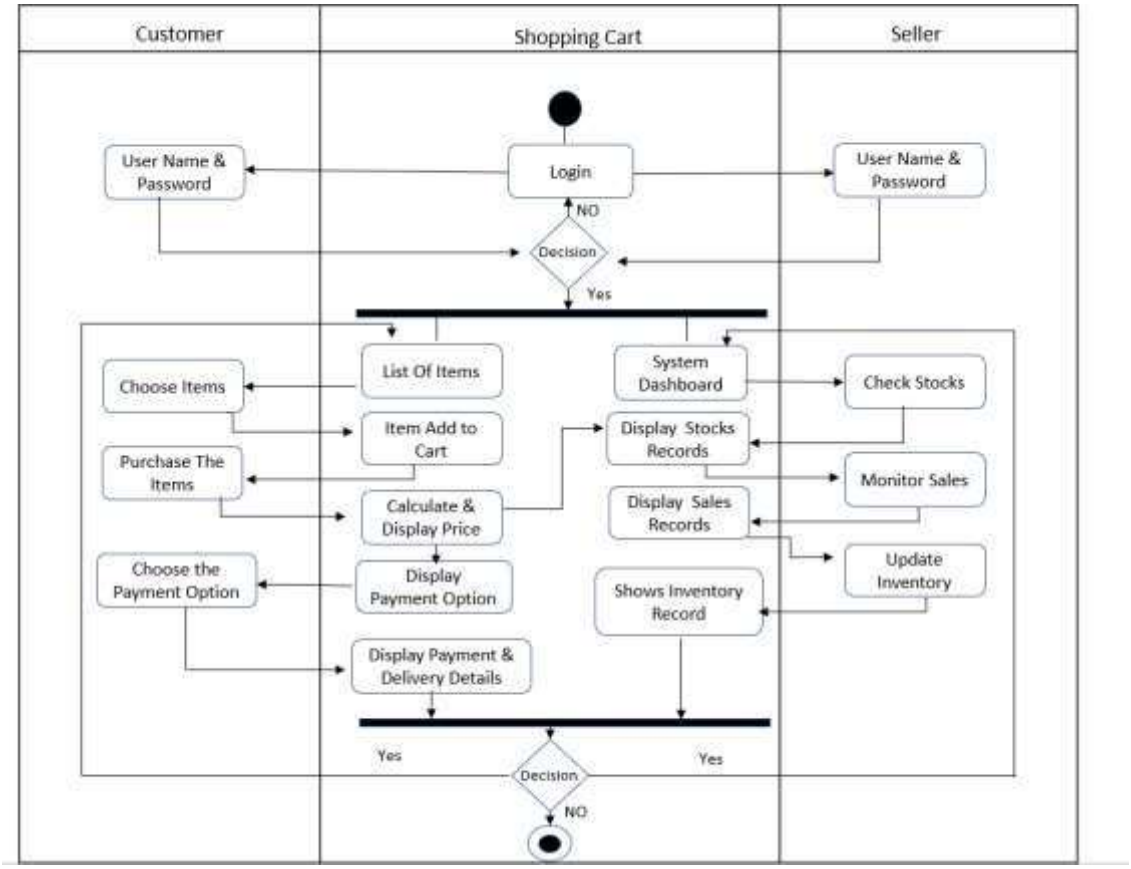


Fig 3.4.4.1. Activity Diagram

CHAPTER-4
IMPLEMENTATION

4.1 MODULES

Modules of Seller

- Firstly, the seller can register with their respective details and then login whenever he/she get access from database.
- Here the seller can view or check the customer details.
- **Add category details**: seller can add the category details i.e., category name, category photo.
- **Add product details**: seller can add the product details i.e., product name, category name, product price, product description, product stock, product area pin code.
- **Update product details**: seller can edit/update the product stock or details.
- **View user details**: seller can view the user details
- **View sales details**: seller can view the sales report and generated graph based on the sales, and also delivery the product registered email-based authentication.

Modules of customer

- Firstly, the customer can register with their respective details and then login whenever he/she get access from email-based activation.
- Here the customer can view or check the required product details.
- **Search for products**: she/he can search for products through pin code.
- **But the product**: product can add to the cart and check out the product.
- Customer can pay in website and view the transaction list in they profile.

4.2 WEB DEVELOPMENT

Web development refers to building, creating, and a maintaining website. It includes aspects such as web design, web publishing, web programming, and database management.

- Web development can range from developing a simple single Web development can range from developing a simple single static page of plain text to complex Web-based Internet applications (Web apps), electronic businesses, and social network services.
- A more comprehensive list of tasks to which Web development commonly refers, may include Web engineering, Web design, Web content development, client liaison, client

side/server-side scripting, Web server and network security configuration, and ecommerce development.

- Web development is of two kinds:

1. Frontend development
2. Backend development

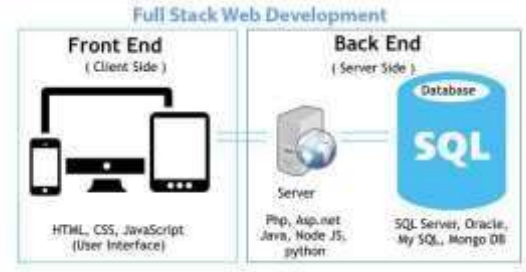


Fig. representing full stack web development

The frontend development is the part of developing the interfaces and designing the face of webpage whereas backend development is the part of development in which all the dynamic actions and computations take place at the client side as well as server side. There are many languages that can be used for backend development. The language for backend development is chosen according to the necessity and functionality. Here we used PHP and MYSQL as it is a simple dynamic web portal and need to be scaled for larger data sets and should be easy to be modified at the server side.

- It is also notable that this portal will be used as an integrated service to the existing website or portal and is to be compatible with it.

4.3 PROGRAMMING LANGUAGES

Here we have to know about html, CSS, Bootstrap, JavaScript and jQuery.

4.3.1 HTML

HTML plays a couple of significant roles in a web page.

- HTML stands for “hypertext markup language”
- First, we use the structure created by our HTML code to reference, enhance, and manipulate elements on a web page using CSS and typescript.
- For instance, you could use HTML to mark all of the headings on a web page, and then use CSS to specify the font, size, and colour you want to apply to those headings to reflect your organization’s branding, or simply a visual design developed for the site.

- Second, HTML lets us indicate the roles of different elements to search engines and other services that index the content and summarize it for other users.
- HTML can be regarded as the skeleton for the webpage.

4.3.2 CSS

CSS stands for “Cascading Style Sheet”.

- CSS is used to apply styles for webpage and elements of webpage.
  We can import styling from an external page or code within the page.
- CSS can be applied for divisions of webpage.
- CSS can be inherited and overloaded using classes.

4.3.3 BOOTSTRAP

- Bootstrap is a free front-end framework for faster and easier web development
- Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins
- Bootstrap also gives you the ability to easily create responsive designs
- Bootstrap is the most popular HTML, CSS, and JavaScript framework for developing responsive, mobile-first websites.
- Bootstrap is completely free to download and use.

4.3.4 JAVASCRIPT

JavaScript was initially created to “make web pages alive”.

- The programs in this language are called scripts. They can be written right in a web page’s HTML and run automatically as the page loads.
- Scripts are provided and executed as plain text. They don’t need special preparation or compilation to run.
- In this aspect, JavaScript is very different from another language called java.
- When JavaScript was created, it initially had another name: “Live Script”. But Java was very popular at that time, so it was decided that positioning a new language as a “Younger brother” of Java would help.
- But as it evolved, JavaScript became a fully independent language with its own specification called ECMAScript, and now it has no relation to Java at all.
- JavaScript can execute not only in the browser, but also on the server, or actually on any device that has a special program called the JavaScript engine.

- The browser has an embedded engine sometimes called a “JavaScript virtual machine”.

4.3.5 JQUERY

- jQuery is a JavaScript Library.
- jQuery greatly simplifies JavaScript programming.
- jQuery is easy to learn.
- jQuery is a lightweight, "write less, do more", JavaScript library.
- The purpose of jQuery is to make it much easier to use JavaScript on your website. jQuery takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code.
- jQuery also simplifies a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.
- The jQuery library contains the following features:
    - HTML/DOM manipulation ○ CSS manipulation ○ HTML event methods ○ Effects and animations
    - AJAX
    - Utilities

4.3.6 PHP

PHP is a server scripting language, and a powerful tool for making dynamic and interactive Web pages. PHP is a widely-used, free, and efficient alternative to competitors such as Microsoft's ASP.

- PHP is an acronym for "PHP: Hypertext Preprocessor"
- PHP is a widely-used, open-source scripting language
- PHP scripts are executed on the server
- PHP is free to download and use
- PHP can generate dynamic page content
- PHP can create, open, read, write, delete, and close files on the server
- PHP can collect form data
- PHP can send and receive cookies
- PHP can add, delete, modify data in your database
- PHP can be used to control user-access
- PHP can encrypt data

4.3.7. MYSQL:

- MySQL is a widely used relational database management system (RDBMS).
- MySQL is free and open-source.
- MySQL is ideal for both small and large applications.
- MySQL is free
- MySQL is ideal for both small and large applications
- MySQL is very fast, reliable, scalable, and easy to use
- MySQL is cross-platform
  MySQL is compliant with the ANSI SQL standard
- MySQL was first released in 1995
- MySQL is developed, distributed, and supported by Oracle Corporation
- MySQL is named after co-founder Monty Widenius's daughter: My

Uses:

- Huge websites like Facebook, Twitter, Airbnb, Booking.com, Uber, GitHub, YouTube, etc.
- Content Management Systems like WordPress, Drupal, Joomla!, Contao, etc.
- A very large number of web developers around the world

4.4 XAMPP

XAMPP is an abbreviation where X stands for Cross-Platform, A stands for Apache, M stands for MYSQL, and the Ps stand for PHP and Perl, respectively. It is an open-source package of web solutions that includes Apache distribution for many servers and command-line executables along with modules such as Apache server, MariaDB, PHP, and Perl.

XAMPP helps a local host or server to test its website and clients via computers and laptops before releasing it to the main server. It is a platform that furnishes a suitable environment to test and verify the working of projects based on Apache, Perl, MySQL database, and PHP through the system of the host itself. Among these technologies, Perl is a programming language used for web development, PHP is a backend scripting language, and MariaDB is the most vividly used database developed by MySQL. The detailed description of these components is given below.

4.4.1 XAMPP Installation:

To install XAMPP on your PC go to: https://apachefriends.org and click on the XAMPP for Windows link.

Fig 4.4.1.1

The download will start automatically.

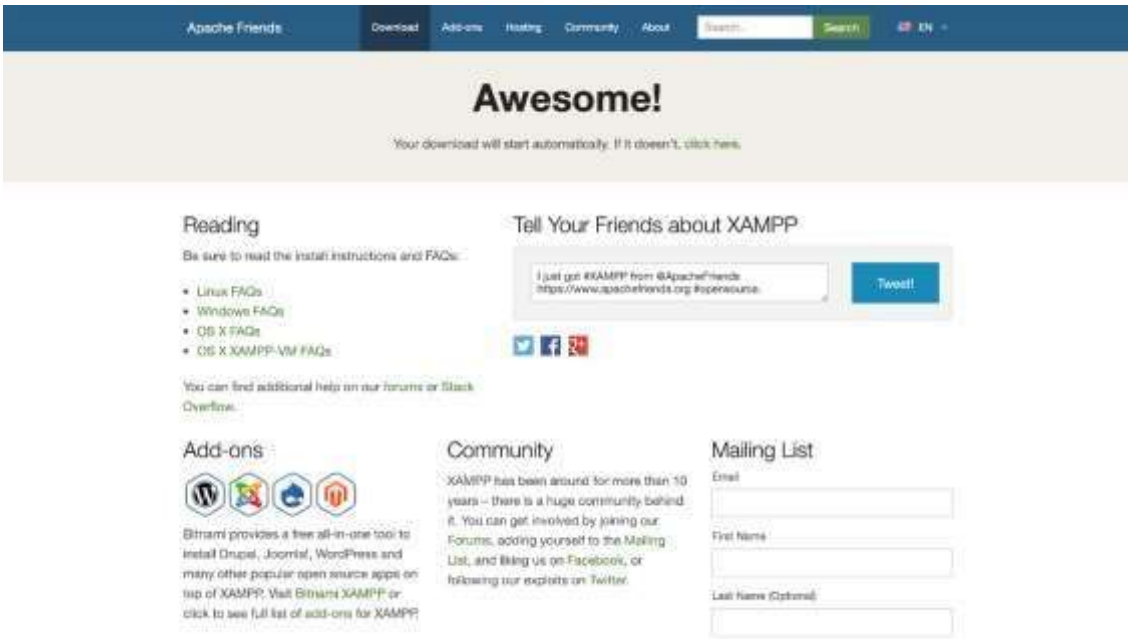


Fig 4.4.1.2

Once the download has completed, go to your Downloads folder and double-click on the installer to start the installation.

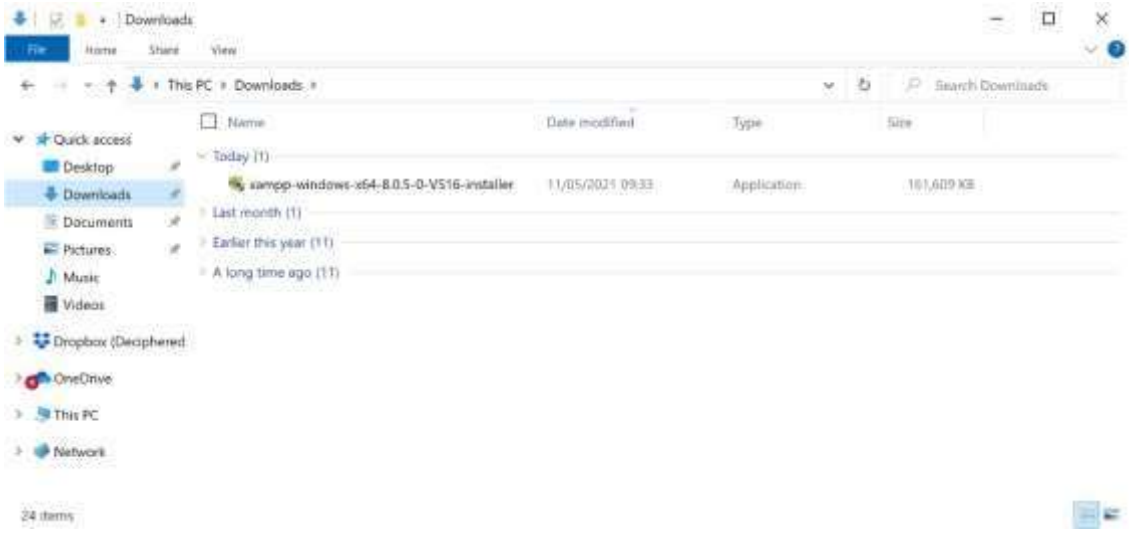


Fig 4.4.1.3

Follow the instructions to install XAMPP.

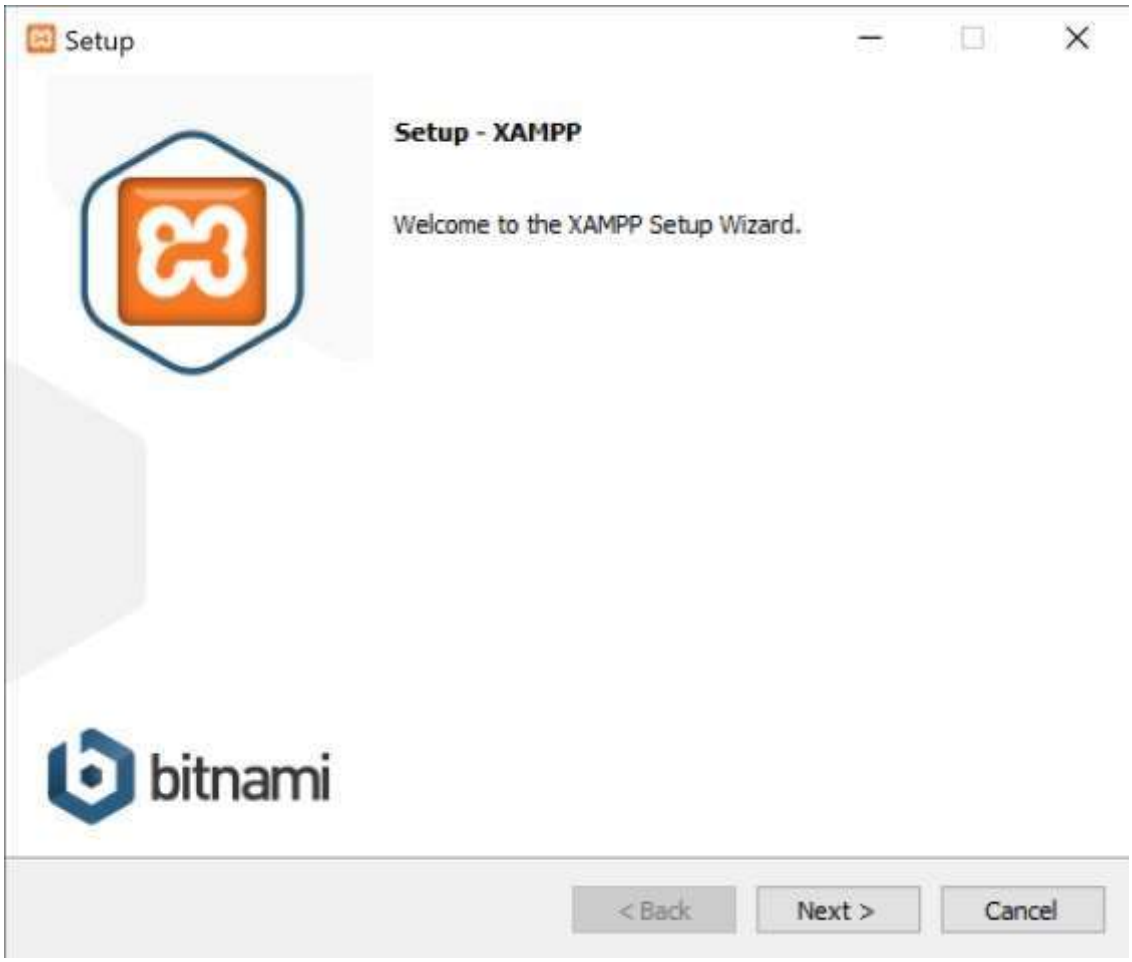


Fig 4.4.1.4

To start XAMPP, type XAMPP into the search bar.

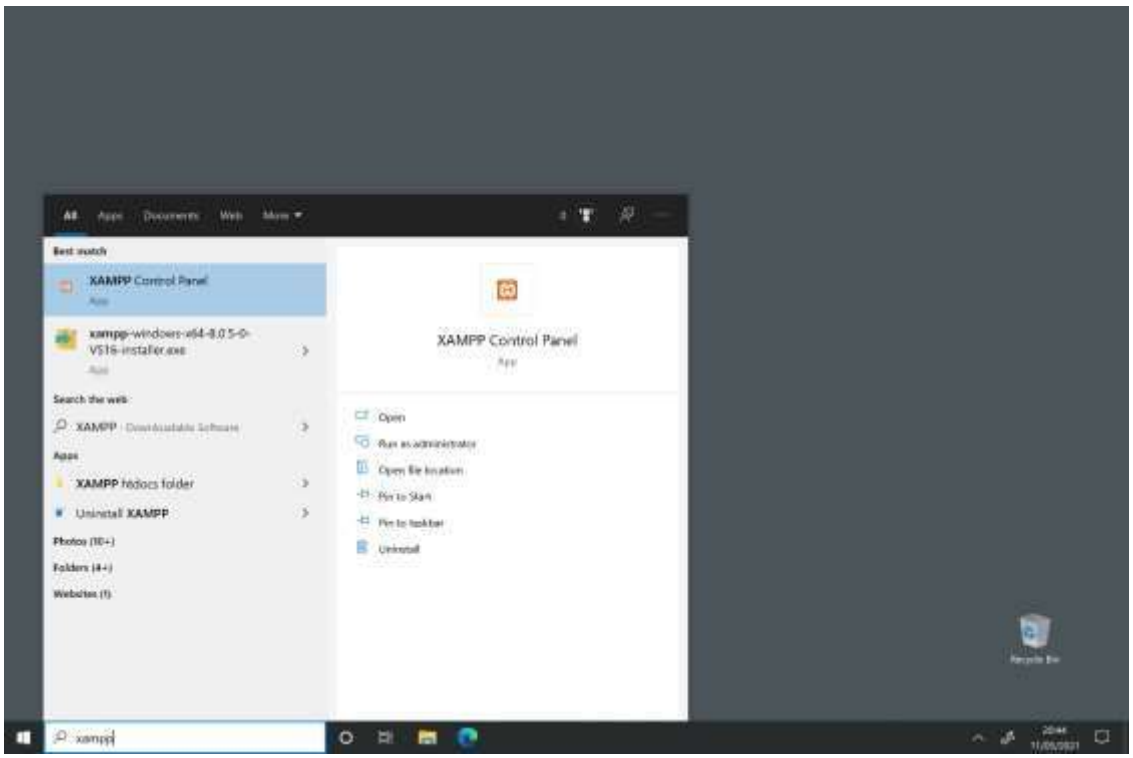


Fig 4.4.1.5

Then select the XAMPP Control Panel to start XAMPP.

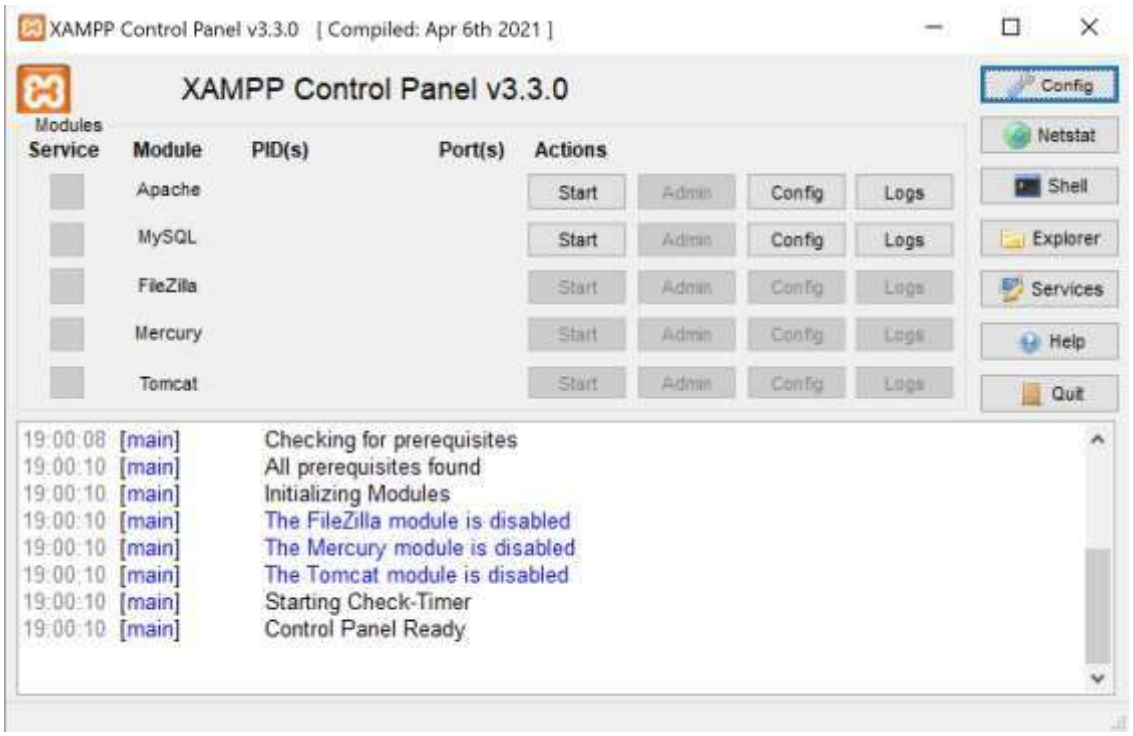


Fig 4.4.1.6

Screen shot of the search box in the Windows task bar with XAMPP entered in the text input and the popup showing a link to open the XAMPP Control Panel

The XAMPP Interface

Here you can see the XAMPP interface. Click on any of these points to highlight the relevant part of image.

The Start button for Apache is used to start the Apache web server (and then stop it when it is started).

The Start button for MySQL will start the MySQL database (and then stop it when it is started).

The port numbers for Apache and MySQL are shown when the servers have started.

4.4.2 Where to Save PHP Files

When you are learning to create websites using PHP, you should save all of your PHP pages in a folder called the document root folder. You should also put any other files that the browser might request in this folder (such as images, CSS and JavaScript files).

When using XAMPP the default location of the document root folder is C:\XAMPP\htdocs\.

4.5 MYSQL DATABASE

4.5.1 MYSQL Database Tables

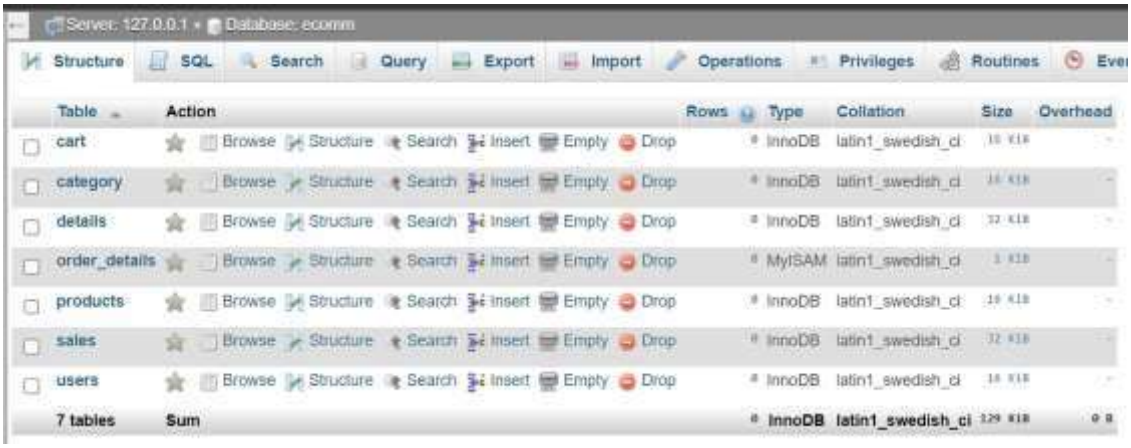


Fig 4.5.1 Database Tables

4.5.2 Cart Table Structure

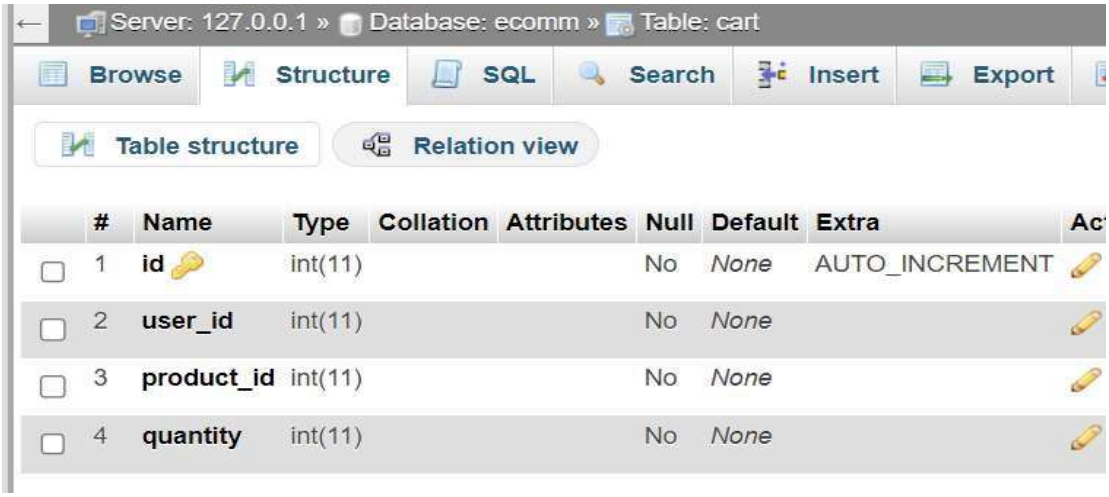


Fig 4.5.2 Cart Table Structure

4.5.3 Category Table Structure

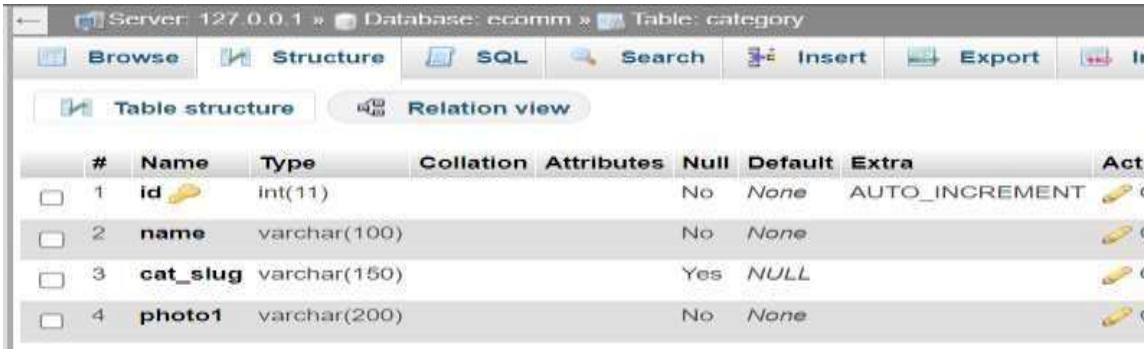


Fig 4.5.3 Category Table Structure

4.5.4 Details Table Structure

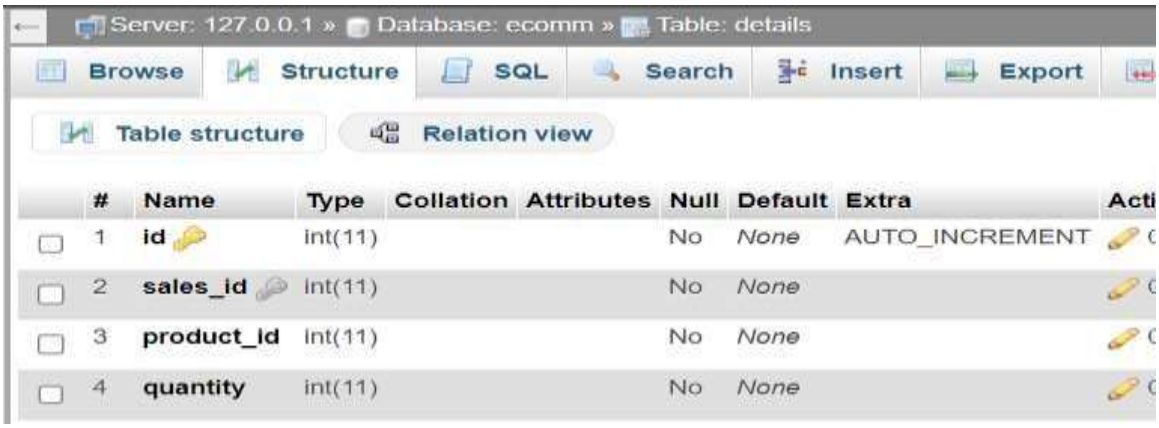


Fig 4.5.4 Details Table Structure

4.5.5 Sales Table Structure

Fig 4.5.5 Sales Table Structure

4.5.6 Order Details Table

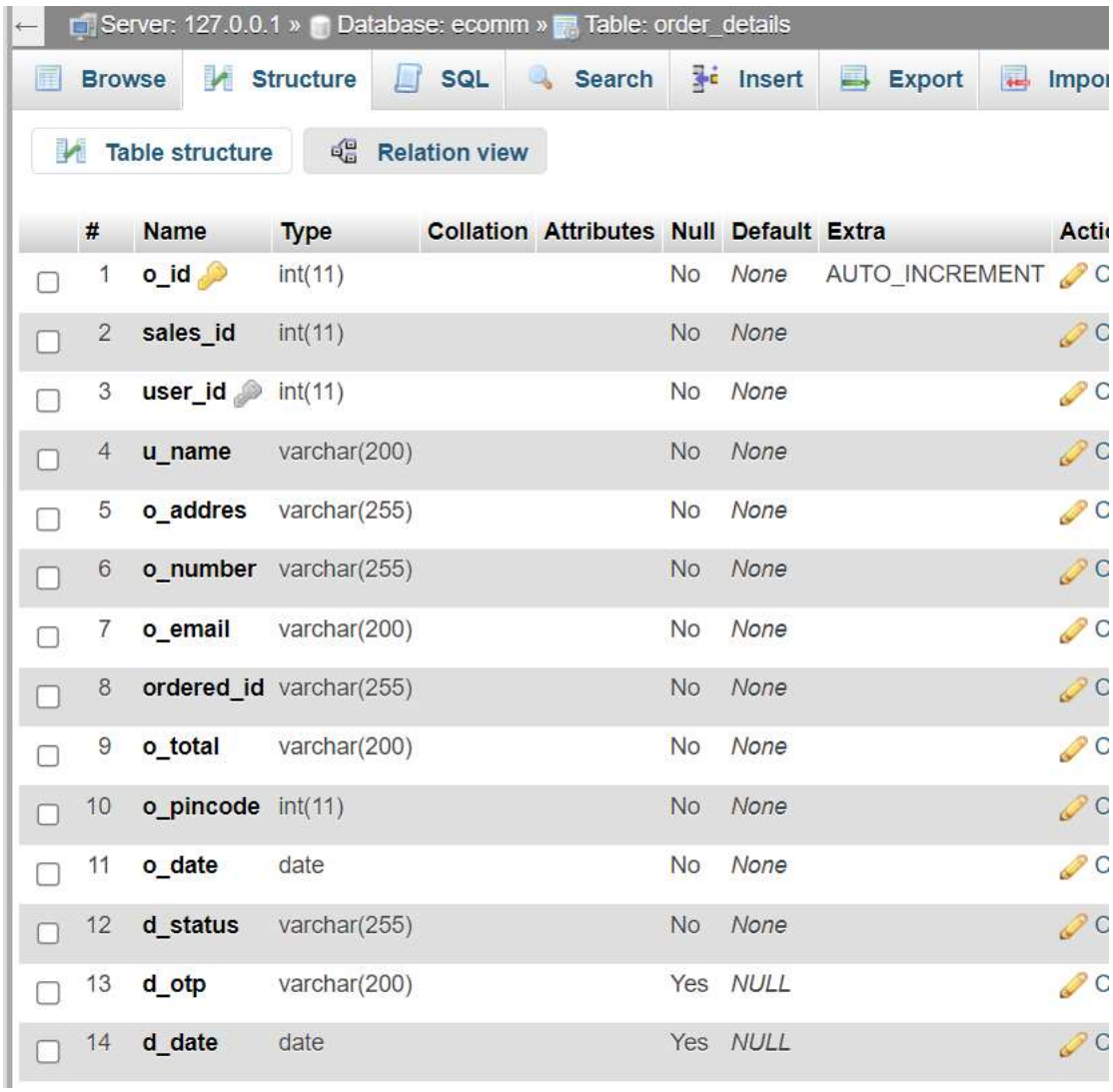
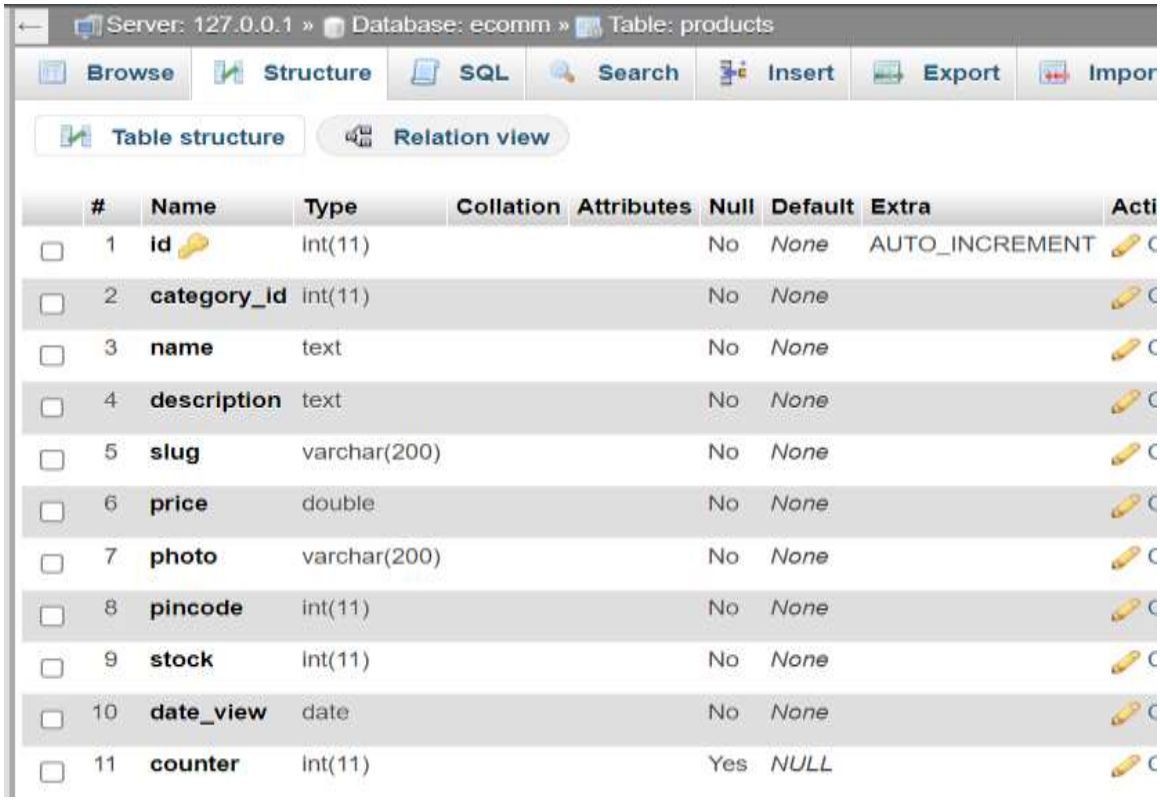


Fig 4.5.3 Order Details Table Structure

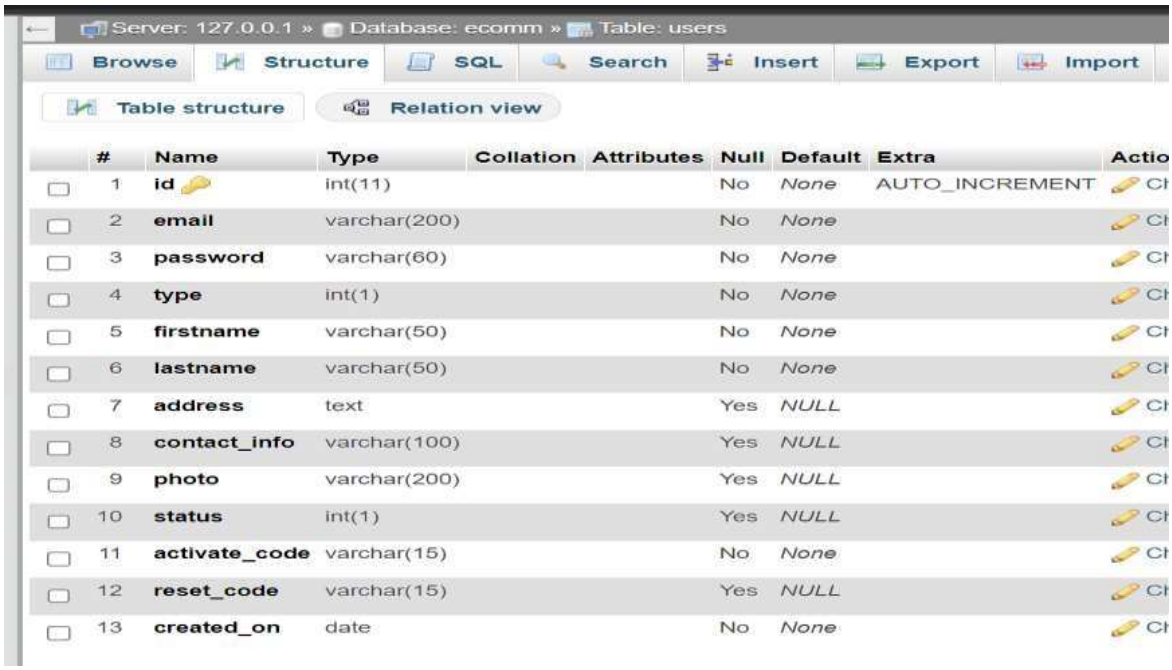
4.5.7 Products Table Structure



#	Name	Type	Collation	Attributes	Null	Default	Extra	Acti
1	id	int(11)			No	None	AUTO_INCREMENT	
2	category_id	int(11)			No	None		
3	name	text			No	None		
4	description	text			No	None		
5	slug	varchar(200)			No	None		
6	price	double			No	None		
7	photo	varchar(200)			No	None		
8	pincode	int(11)			No	None		
9	stock	int(11)			No	None		
10	date_view	date			No	None		
11	counter	int(11)			Yes	NULL		

Fig 4.5.7 Product Table Structure

4.5.8 Users Table Structure



#	Name	Type	Collation	Attributes	Null	Default	Extra	Actio
1	id	int(11)			No	None	AUTO_INCREMENT	
2	email	varchar(200)			No	None		
3	password	varchar(60)			No	None		
4	type	int(1)			No	None		
5	firstname	varchar(50)			No	None		
6	lastname	varchar(50)			No	None		
7	address	text			Yes	NULL		
8	contact_info	varchar(100)			Yes	NULL		
9	photo	varchar(200)			Yes	NULL		
10	status	int(1)			Yes	NULL		
11	activate_code	varchar(15)			No	None		
12	reset_code	varchar(15)			Yes	NULL		
13	created_on	date			No	None		

Fig 4.5.8. Users Table Structure

4.6 FILES ORGANIZATION:

4.6.1 Paytm Payment Gateway Files

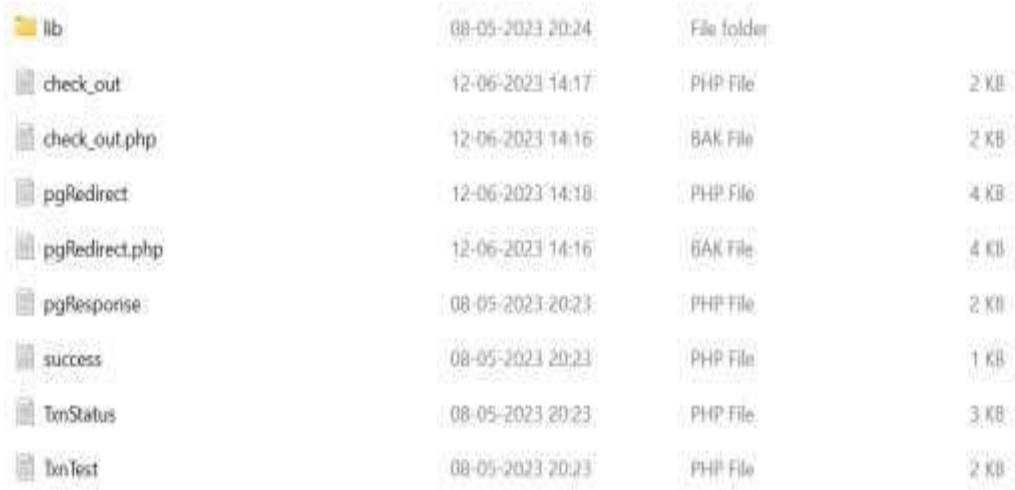


Fig 4.6.1 Paytm Payment Gateway Files

4.6.2 PHP Files Organization in Ecommerce Folder

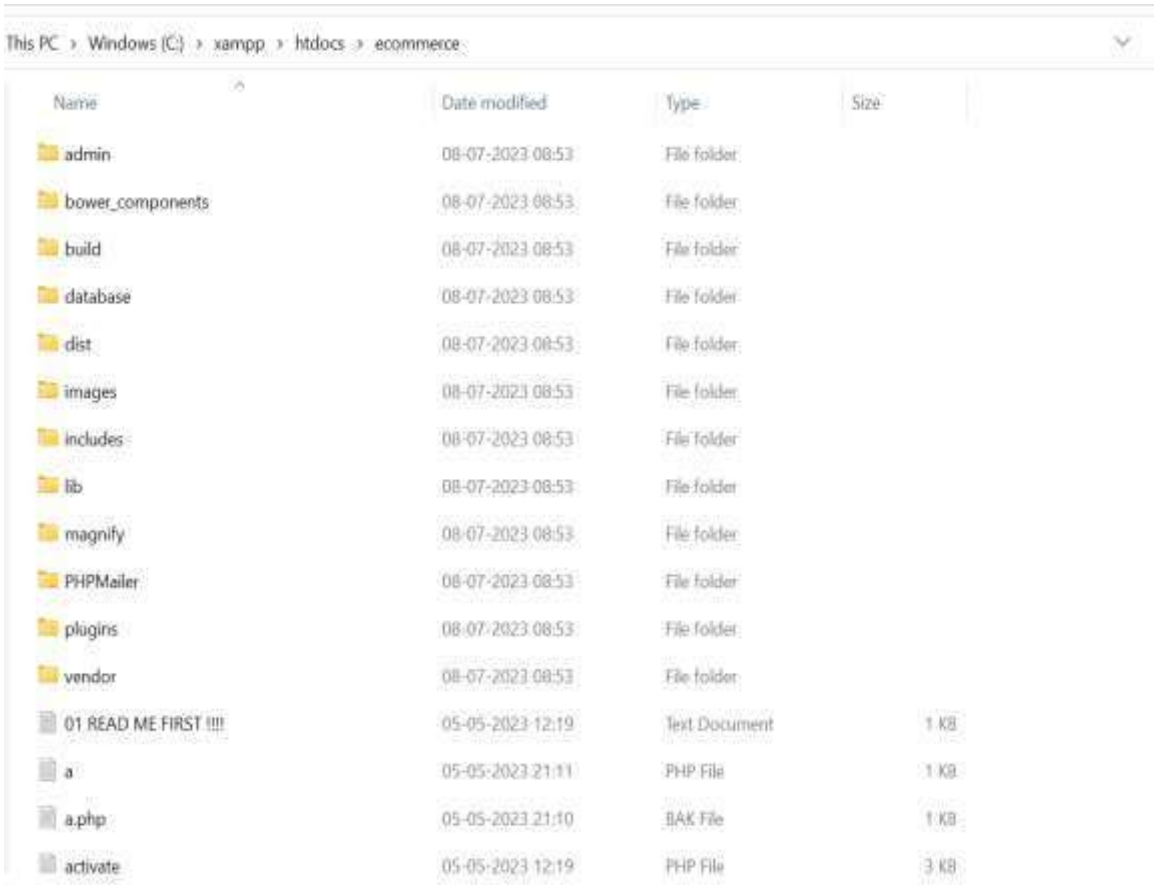


Fig 4.6.2 PHP Files

4.7 Tawk Live chat Code:

Tawk.to is a completely free live chat service with over 3 million users worldwide. The program includes all of the essential live chat functionalities needed to assist and engage clients.

```
<script type="text/javascript">
var Tawk_API=Tawk_API||{}, Tawk_LoadStart=new Date();
(function(){ var
s1=document.createElement("script"),s0=document.getElementsByTagName("script")[0];
s1.async=true; s1.src='https://embed.tawk.to/648af5accc26a871b022b43f/1h2vcvdag';
s1.charset='UTF-8'; s1.setAttribute('crossorigin','*'); s0.parentNode.insertBefore(s1,s0);
})();
</script>
```

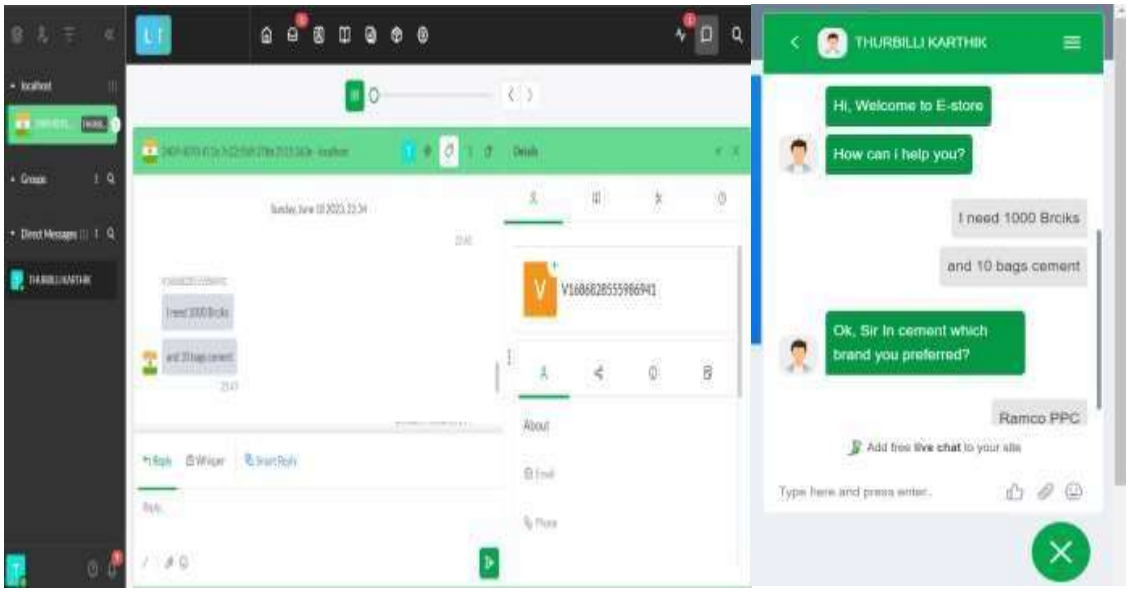


Fig 4.7.1 Tawk Live Chat Screen

CHAPTER-5

CODING

5.1 Database Connection

```
<?php
Class Database{
private $server = "mysql:host=localhost;dbname=ecomm";
private $username = "root"; private
$password = "";
private $options  = array(PDO::ATTR_ERRMODE => PDO::ERRMODE_
EXCEPTION,PDO::ATTR_DEFAULT_FETCH_MODE => PDO::FETCH_ASSOC,); protected
$conn;
public function open(){try{
  $this->conn = new PDO($this->server, $this->username, $this->password, $this->options);
  return $this->conn;                }
  catch (PDOException $e){
  echo "There is some problem in connection: " . $e-
  >getMessage(); } } public function close(){
  $this->conn = null;
}
}
$pdo = new Database();
?>
```

5.2 Including Files

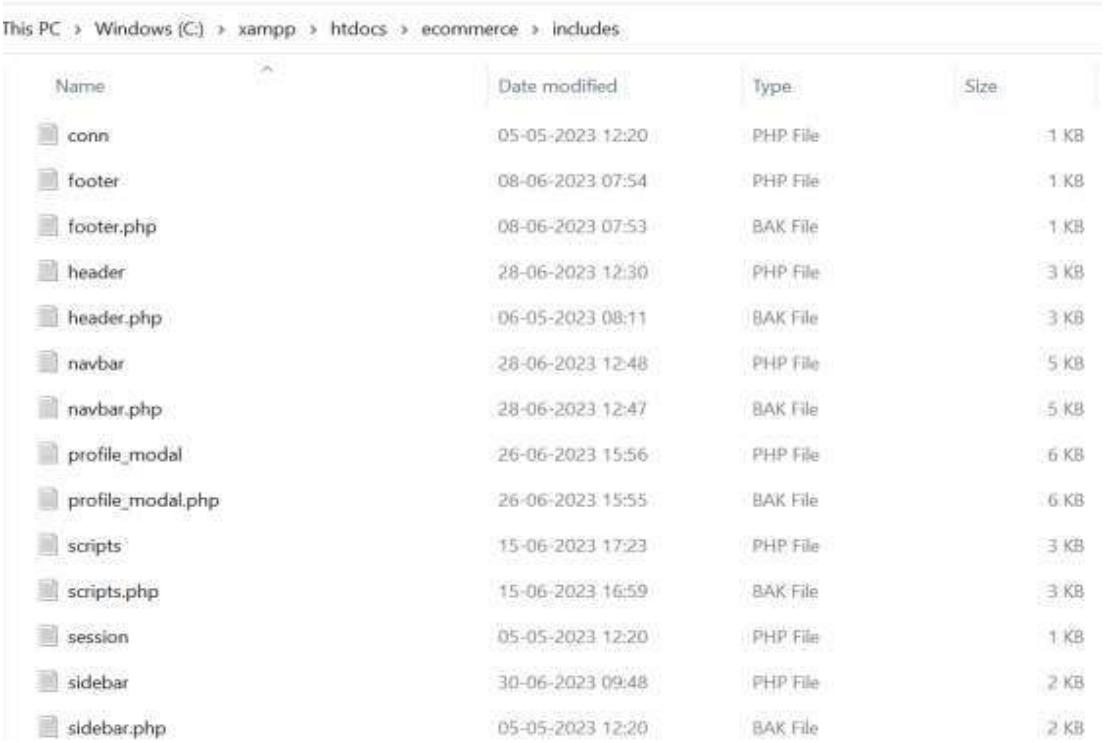


Fig 5.2.1 Including Files

5.3 User Registration Page& Mail Sending Code:

```
<?php  use HPMailer\PHPMailer\PHPMailer;
 use PHPMailer\PHPMailer\Exception;
require_once PHPMailer/src/PHPMailer.php';
require_once 'PHPMailer/src/SMTP.php';
require_once 'PHPMailer/src/Exception.php';
include 'includes/session.php';
if(isset($_POST['signup'])){
            $firstname = $_POST['firstname'];
            $lastname = $_POST['lastname'];
            $email = $_POST['email'];
            $password = $_POST['password'];
            $repassword = $_POST['repassword'];
            $type=0; echo$firstname;
            echo$lastname;
            echo$email;
            echo$password;
            $_SESSION['firstname'] = $firstname;
            $_SESSION['lastname'] = $lastname;
            $_SESSION['email'] = $email;
            if($password != $repassword){
             $_SESSION['error'] = 'Passwords did not match';
            header('location: signup.php'); } else{
$conn =$pdo->open();
 $stmt = $conn->prepare("SELECT COUNT(*) AS numrows FROM users WHERE    email=:email");
 $stmt->execute(['email'=>$email]);
$row = $stmt->fetch();
if($row['numrows'] > 0){
 $_SESSION['error'] = 'Email already taken';
header('location: signup.php'); }
```

```
else{
        $now = date('Y-m-d');
        $password = password_hash($password, PASSWORD_DEFAULT);
$set='123456789abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVW XYZ';
$code=substr(str_shuffle($set), 0, 12);
try{  $stmt = $conn->prepare("INSERT INTO users (email, password,type, firstname,
lastname, activate_code, created_on) VALUES (:email, :password,:type, :firstname, :lastname,
:code, :now)");
$stmt->execute(['email'=>$email,
'password'=>$password,'type'=>$type, 'firstname'=>$firstname, 'lastname'=>$lastname,
'code'=>$code, 'now'=>$now]);
$userid = $conn->lastInsertId();
        $message = "
            <h2>Thank you for Registering.</h2>
            <p>Your Account:</p>
            <p>Email: ".$email."</p>
            <p>Password: ".$_POST['password']."</p>
            <p>Please click the link below to activate your account.</p>
 <a href='http://localhost/ecommerce/activate.php?code=".$code."&user=".$userid."'>
Activate Account</a>";
                //Load phpmailer
            require 'vendor/autoload.php';
            $mail = new PHPMailer(true);       try {
             $mail->isSMTP();
             $mail->Host = 'smtp.gmail.com';
             $mail->SMTPAuth = true;
             $mail->Username = 'thurbilli@gdctuni.edu.in';
             $mail->Password = 'aqwlxwmidgdyuzfu';
             $mail->SMTPOptions = array(
                'ssl' => array(
                'verify_peer' => false,
```

```
                                    'verify_peer_name' => false,
                                    'allow_self_signed' => true    ) );
                                    $mail->SMTPSecure = 'ssl';
                                    $mail->Port = 465;
                                    $mail->setFrom('thurbilli@gdctuni.edu.in');
                                    $mail->addAddress($email);
                                    $mail->addReplyTo('thurbilli@gdctuni.edu.in');
                                    $mail->isHTML(true);
                                    $mail->Subject = 'ECommerce Site Sign Up';
                                    $mail->Body    = $message;
                                    $mail->send();
unset($_SESSION['firstname']);
unset($_SESSION['lastname']);
unset($_SESSION['email']);
        $_SESSION['success'] = 'Account created. Check your email to activate.';
            header('location: signup.php'); }
                        catch (Exception $e) {
        $_SESSION['error'] = 'Message could not be sent. Mailer Error: '.$mail->ErrorInfo;
        header('location: signup.php');}}
catch(PDOException $e){
$_SESSION['error']          =          $e->getMessage();
header('location: register.php'); }
 $pdo->close();}}}
 else{$_SESSION['error'] = 'Fill up signup form first';
 header('location: signup.php');}?>
```

5.4 Login Page Code:

```
<?php
include 'includes/session.php';
$conn = $pdo->open();
if(isset($_POST['login'])){
	$email = $_POST['email'];
	$password = $_POST['password'];
	try{
$stmt = $conn->prepare("SELECT *, COUNT(*) AS numrows FROM users WHERE email = :email");
$stmt->execute(['email'=>$email]);
$row = $stmt->fetch();
if($row['numrows'] > 0){
if($row['status']){
if(password_verify($password, $row['password'])){
if($row['type']){
	$_SESSION['admin'] = $row['id'];}
else{
		$_SESSION['user'] = $row['id']; }}
else{		$_SESSION['error'] = 'Incorrect Password';		}
	 }
else{
	$_SESSION['error'] = 'Account not activated.';	}}
		else{
			$_SESSION['error'] = 'Email not found';
		}}
catch(PDOException $e){
		echo "There is some problem in connection: " . $e->getMessage();}}
else{$_SESSION['error'] = 'Input login credentails first'; }
$pdo->close();
header('location: login.php');
?>
```

5.5 Cart Add and Product Stock Validate Page Code:

```
<?php
include 'includes/session.php';
$conn = $pdo->open();
$output = array('error'=>false);
$id = $_POST['id'];
$quantity = $_POST['quantity'];
$stmt = $conn->prepare("SELECT * FROM  products WHERE id=:id");
$stmt->execute([ 'id'=>$id]);
$row1 = $stmt->fetch();
 if($quantity <= $row1['stock']) {
if(isset($_SESSION['user'])){
$stmt = $conn->prepare("SELECT *, stock AS s, COUNT(*) AS numrows FROM cart, products WHERE user_id=:user_id AND product_id=:product_id");
$stmt->execute(['user_id'=>$user['id'], 'product_id'=>$id]);
$row = $stmt->fetch();
if($row['numrows'] < 1  ){try{
$stmt = $conn->prepare("INSERT INTO cart (user_id, product_id, quantity) VALUES (:user_id, :product_id, :quantity)
$stmt->execute(['user_id'=>$user['id'], 'product_id'=>$id, 'quantity'=>$quantity]);
$output['message'] = 'Item added to cart';
}catch(PDOException $e){
                        $output['error'] = true;
                        $output['message'] = $e->getMessage();}}
        else{           $output['error'] = true;
                       $output['message'] = 'Product already in cart ';      }}
else{
        if(!isset($_SESSION['cart'])){
                $_SESSION['cart'] = array();
        }
        $exist = array();
        foreach($_SESSION['cart'] as $row){
```

```
                array_push($exist, $row['productid']);
        }
        if(in_array($id, $exist)){
                $output['error'] = true;
                $output['message'] = 'Product already in cart';
        }
        else{
                $data['productid'] = $id;
                $data['quantity'] = $quantity;
                if(array_push($_SESSION['cart'], $data)){
                $output['message'] = 'Item added to cart';
                }
                else{
                        $output['error'] = true;
                        $output['message'] = 'Cannot add item to cart';
                }
        }
}
}
else
 {
 $output['error'] = true;
                $output['message'] = 'Product is outofstock ';
 }
$pdo->close();
echo json_encode($output);

?>
```

5.6 Product Search Based Pin-code Code:

```
<?php include 'includes/session.php'; ?>
<?php include 'includes/scripts.php'; ?>
	<div id="result"></div><script>
	$(document).ready(function() {
		var pincode = prompt("Please enter your pincode:");
		if (pincode) {
			console.log("Your pincode is: " + pincode);
			$.ajax({
				type: "POST",
				url: window.location.href,
				data: { pincode: pincode },
				success: function(response) {
					console.log(response);
					$("#result").html(response);
				},
				error: function(xhr, status, error) {
					console.log("Error:", error);
				}
			});}
	});
</script>
<?php
$pincode=0;
	if ($_SERVER["REQUEST_METHOD"] == "POST") {
		 if (isset($_POST["pincode"])) {
		$pincode = $_POST["pincode"];
		//echo "<p>Your pincode is: $pincode</p>";
	}}

?>
```

```
<?PHP
$slug = $_GET['category'];
$conn = $pdo->open();
try{
	$stmt = $conn->prepare("SELECT * FROM category WHERE cat_slug = :slug");
	$stmt->execute(['slug' => $slug]);
	$cat = $stmt->fetch();
	$catid = $cat['id'];
}
catch(PDOException $e){
	echo "There is some problem in connection: " . $e->getMessage();
}
$pdo->close();
?>
<?php include 'includes/header.php'; ?>
<body class="hold-transition skin-blue layout-top-nav">
<div class="wrapper">
<?php include 'includes/navbar.php'; ?>
  <div class="content-wrapper">
    <div class="container">
      <!-- Main content -->
      <section class="content">
        <div class="row">
          <div class="col-sm-9">
            <h1 class="page-header"><?php echo $cat['name']; ?></h1>
              <?php
                $conn = $pdo->open();
                try{
                  $inc = 3;
$stmt = $conn->prepare("SELECT * FROM products WHERE category_id = :catid and pincode= :pincode");
$stmt->execute(['catid' => $catid,'pincode'=>$pincode]);
```

```
foreach ($stmt as $row) {
$image = (!empty($row['photo'])) ? 'images/'.$row['photo'] : 'images/noimage.jpg';
$inc = ($inc == 3) ? 1 : $inc + 1;
if($inc == 1) echo "<div class='row'>";
echo "
<div class='col-sm-4'>
<div class='box box-solid'>
<div class='box-body prod-body'>
<a href='product.php?product=".$row['slug']."'> <img  src='".$image."'  width='100%'  height='230px' class='thumbnail'>
        <h5>".$row['name']."</a></h5>
        </div>
        <div class='box-footer'>
        <b>&#8377; ".number_format($row['price'], 2)."</b>          </div>  </div></div>";
if($inc == 3) echo "</div>";
}
if($inc == 1) echo "<div class='col-sm-4'></div><div class='col-sm-4'></div></div>";
if($inc == 2) echo "<div class='col-sm-4'></div></div>";}
catch(PDOException $e){
echo "There is some problem in connection: " . $e->getMessage();}
$pdo->close();?>
</div>
        <div class="col-sm-3">
        <?php include 'includes/sidebar.php'; ?> </div></div></section>  </div>   </div>
        <?php include 'includes/footer.php'; ?>
</div>
</body>
</html>
```

5.7 Sales Page Code:

```
<?php
include 'includes/session.php';
if(isset($_POST['submit'])){
        $payid = $_POST['pay'];
        $date = date('Y-m-d');
        $o_id =$_POST['o_id'];
        $u_id =$_POST['u_id'];
        $total =$_POST['total'];
        $email =$_POST['email'];
        $name =$_POST['name'];
        $d_pincode =$_POST['d_pincode'];
        $d_address =$_POST['d_address'];
        $d_mobile =$_POST['d_mobile'];
        $d_status=$_POST['d_status'];
        $conn = $pdo->open();
        try{
$stmt = $conn->prepare("INSERT INTO sales (user_id, pay_id, sales_date) VALUES (:user_id, :pay_id, :sales_date)");
$stmt->execute(['user_id'=>$user['id'], 'pay_id'=>$payid, 'sales_date'=>$date]);
$salesid = $conn->lastInsertId();
try{
$stmt = $conn->prepare("SELECT * FROM cart LEFT JOIN products ON products.id=cart.product_id WHERE user_id=:user_id");
$stmt->execute(['user_id'=>$user['id']]);
foreach($stmt as $row){
$stmt = $conn->prepare("INSERT INTO details (sales_id, product_id, quantity) VALUES (:sales_id, :product_id, :quantity)");
$stmt->execute(['sales_id'=>$salesid, 'product_id'=>$row['product_id'], 'quantity'=>$row['quantity']]);
}
$stmt = $conn->prepare("DELETE FROM cart WHERE user_id=:user_id");
$stmt->execute(['user_id'=>$user['id']]);
```

```
$stmt = $conn->prepare("select  * FROM products WHERE id=:id");

$stmt->execute(['id'=>$row['product_id']]);

$row1 =$stmt->fetch();

$stock= $row1['stock'];

$stock= $stock-$row['quantity'];

$stmt = $conn->prepare("UPDATE products SET stock =:stock WHERE id =:id");

$stmt->execute(['stock'=>$stock, 'id'=>$row['product_id']]);


                    //order_deatils query

$stmt = $conn->prepare("INSERT INTO order_details (sales_id, user_id, u_name, o_addres, o_number, o_email, ordered_id, o_total, o_pincode, o_date, d_status) VALUES (:sales_id, :user_id, :u_name, :o_addres, :o_number,:o_email, :ordered_id, :o_total,:o_pincode,:o_date,:d_status)");

$stmt=execute(['sales_id'=>$salesid,'user_id'=>$u_id,'u_name'=>$name,'o_addres'=>$d_address,'o_number'=>$d_mobile, 'o_email'=>$email, 'ordered_id'=>$o_id,'o_total'=>$total_pincode'=>$d_pincode,'o_date'=>$date,'d_status'=>$d_status]);

                        $_SESSION['success'] = 'Transaction successful. Thank you.';

                }

                catch(PDOException $e){

                        $_SESSION['error'] = $e->getMessage();

                }                   }

        catch(PDOException $e){

                $_SESSION['error'] = $e->getMessage();

        }

        $pdo->close();

}

header('location: profile.php');

?>
```

5.8 Sales Graph Code:

```
<script>
$(function(){
  var barChartCanvas = $('#barChart').get(0).getContext('2d')
  var barChart = new Chart(barChartCanvas)
  var barChartData = {
    labels  : <?php echo $months; ?>,
    datasets: [      {
       label               : 'SALES',
       fillColor             : 'rgba(60,141,188,0.9)',
       strokeColor         : 'rgba(60,141,188,0.8)',
       pointColor            : '#3b8bba',
       pointStrokeColor    : 'rgba(60,141,188,1)',
       pointHighlightFill  : '#fff',
       pointHighlightStroke: 'rgba(60,141,188,1)',
       data                : <?php echo $sales; ?>      }    ]  }
  //barChartData.datasets[1].fillColor   = '#00a65a'
  //barChartData.datasets[1].strokeColor = '#00a65a'
  //barChartData.datasets[1].pointColor  = '#00a65a'
  var barChartOptions                  = {
    //Boolean - Whether the scale should start at zero, or an order of magnitude down from the lowest value
    scaleBeginAtZero        : true,
    //Boolean - Whether grid lines are shown across the chart
    scaleShowGridLines      : true,
    //String - Colour of the grid lines
    scaleGridLineColor      : 'rgba(0,0,0,.05)',
    //Number - Width of the grid lines
    scaleGridLineWidth      : 1,
    //Boolean - Whether to show horizontal lines (except X axis)
    scaleShowHorizontalLines: true,
    //Boolean - Whether to show vertical lines (except Y axis)
```

```
    scaleShowVerticalLines  : true,
    //Boolean - If there is a stroke on each bar
    barShowStroke           : true,
    //Number - Pixel width of the bar stroke
    barStrokeWidth          : 2,
    //Number - Spacing between each of the X value sets
    barValueSpacing         : 5,
    //Number - Spacing between data sets within X values
    barDatasetSpacing       : 1,
    //String - A legend template    legendTemplate          :
'<ul class="<%=name.toLowerCase()%>-legend">
<% for (var i=0; i<datasets.length; i++){%>
<li>
<spanstyle="background- olor:<%=datasets[i].fillColor%>"></span>
<%if(datasets[i].label){%><%=datasets[i].label%><%}%></li><%}%></ul>',
    //Boolean - whether to make the chart responsive
    responsive              : true,
    maintainAspectRatio     : true
  }
  barChartOptions.datasetFill = false
  var myChart = barChart.Bar(barChartData, barChartOptions)
  document.getElementById('legend').innerHTML = myChart.generateLegend();
});
</script>
<script>
$(function(){
  $('#select_year').change(function(){
    window.location.href = 'home.php?year='+$(this).val();
  });
});
</script>
```

CHAPTER-6
SYSTEM TESTING

6.1. System Testing:

To check the end-to-end flow of an application or the software as a user is known as System testing. In this, we navigate (go through) all the necessary modules of an application and check if the end features or the end business works fine, and test the product as a whole system. It is end-to-end testing where the testing environment is similar to the production environment.

There are four levels of software testing: unit testing, integration testing, system testing and acceptance testing, all are used for the testing purpose. Unit Testing used to test a single software; Integration Testing used to test a group of units of software, System Testing used to test a whole system and Acceptance Testing used to test the acceptability of business requirements. Here we are discussing system testing which is the third level of testing levels.

6.2. TEST CASES:

Test cases for registration:

S no	Test case	Expected result	Test result
1	enter valid name and email and password after click on login button	Software should register the user data in the database for the future purpose.	successful
2	Click on the email activation Button	If email is correct then sent an email and click on activate the account	successful
3	Enter invalid	Software should not accept the email authentication if the email was existed or email was invalid.	

Table 6.2.1. Test Cases for Registration

Test cases for login:

s.no	Test case	Excepted result	Test result
1	enter valid email and password after click on login button	Software should display the based on the user type redirect the main page of our application.	successful
2	Enter invalid	Software should not display the main page of our application and redirect the login page.	successful

Table 6.2.2. Test Cases for Login

Test cases for cart add:

S no	Test case	Expected result	Test result
1	On click on search button	Displays the details of product through pin code.	successful
2	on click on add button	products can add to the cart the data store at database.	successful
3	On click on update/edit product quantity button	Modified quantity is updated in database by clicking on edit button then validate the quantity check in the database.	successful

Table 6.2.3. Test Cases for Cart Add

Test cases for product purchase:

S no	Test case	Expected result	Test result
1	on click on purchase button	After validate the product quantity payment gateway process the transaction and return the transaction id and basic details.	successful
2	On click on the profile button	View the all the transaction in the profile	successful

Table 6.2.4. Test Cases for Product Purchase

CHAPTER-7
OUTPUT SCREENS

7.1 Register Page:

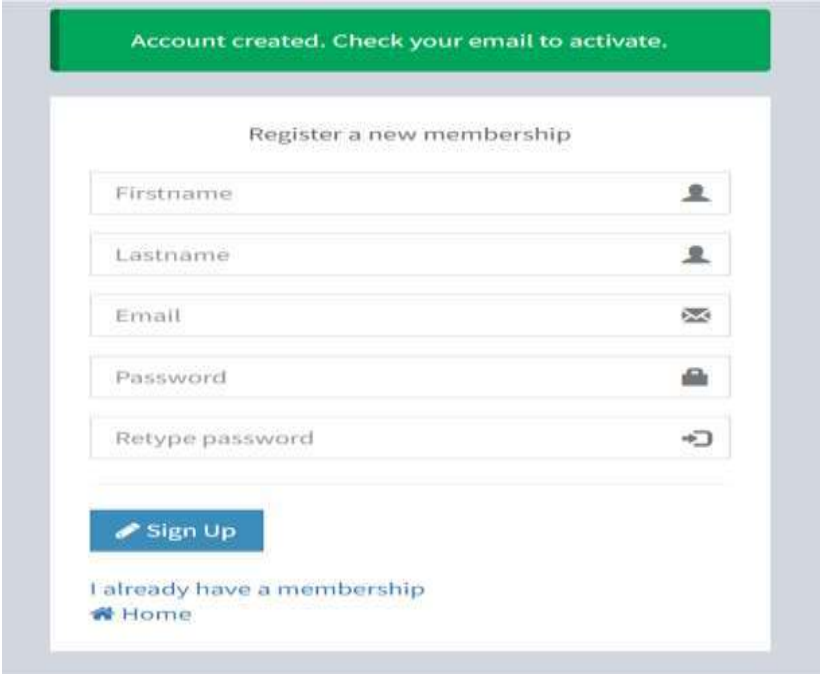


Fig 7.1. Register Page

7.2 Email Activation:

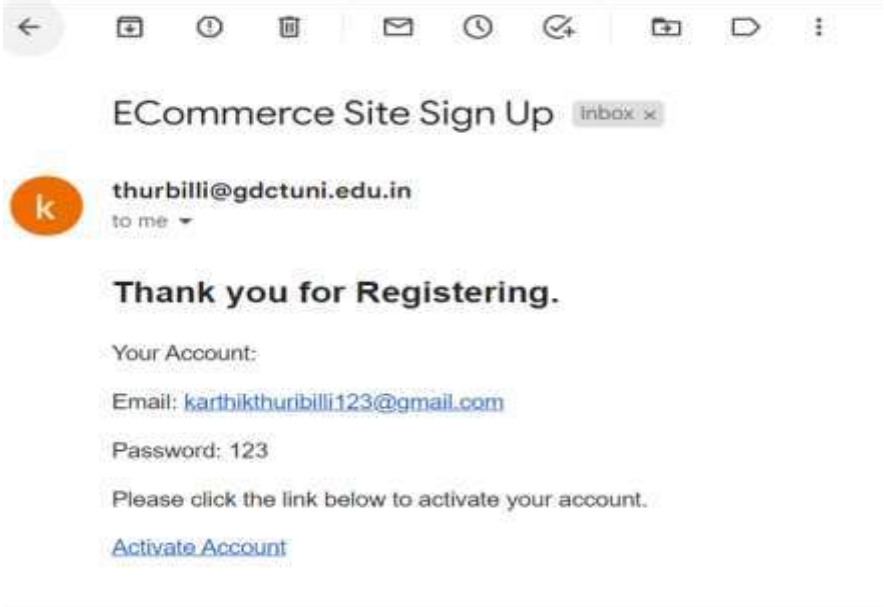


Fig 7.2. Email Activation

7.3 Activated Page:

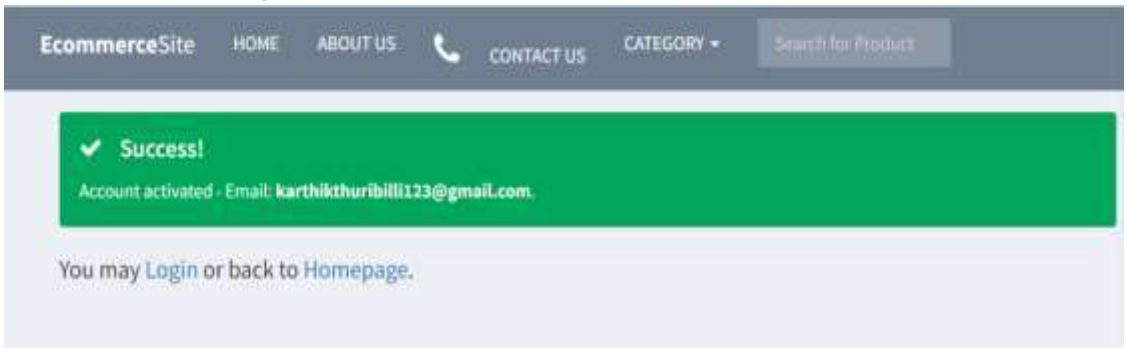


Fig 7.3. Activated Page

7.4 Login Page:

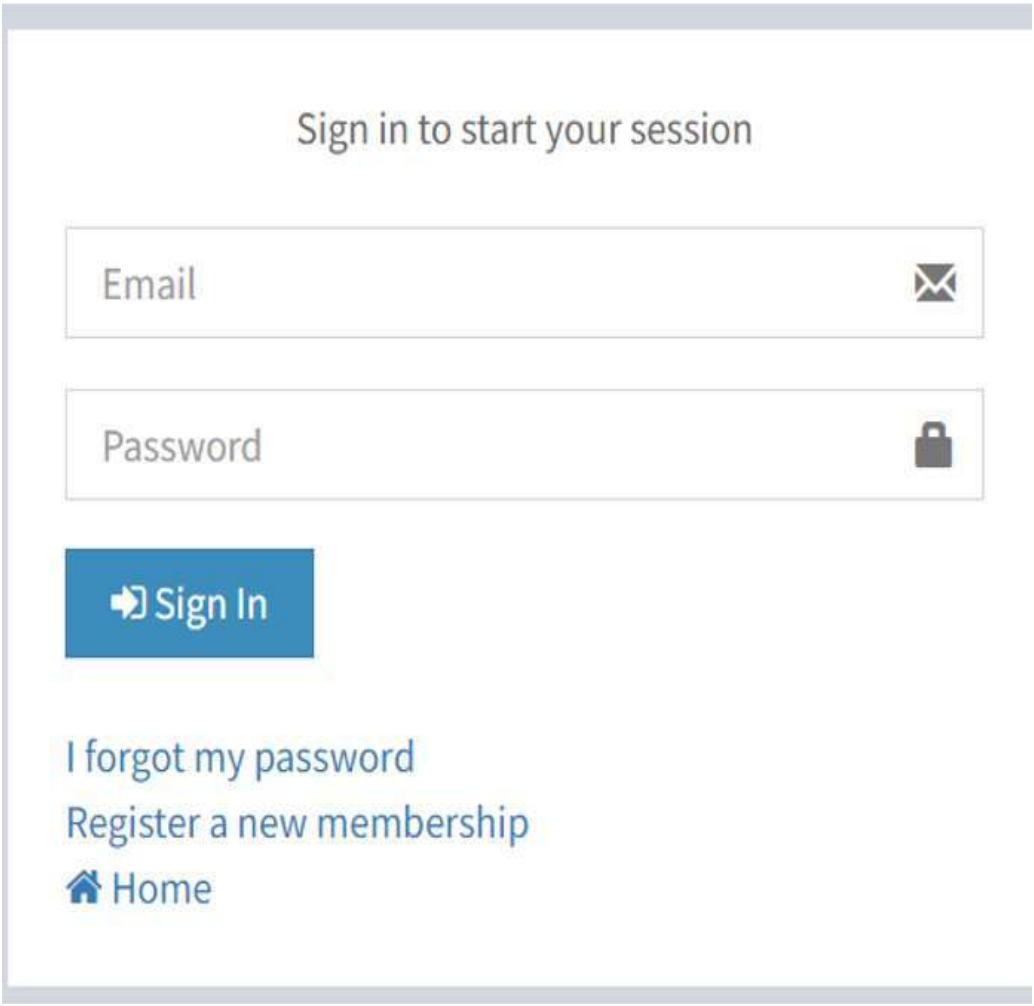


Fig 7.4. Login Page

7.5 Seller Home Page:

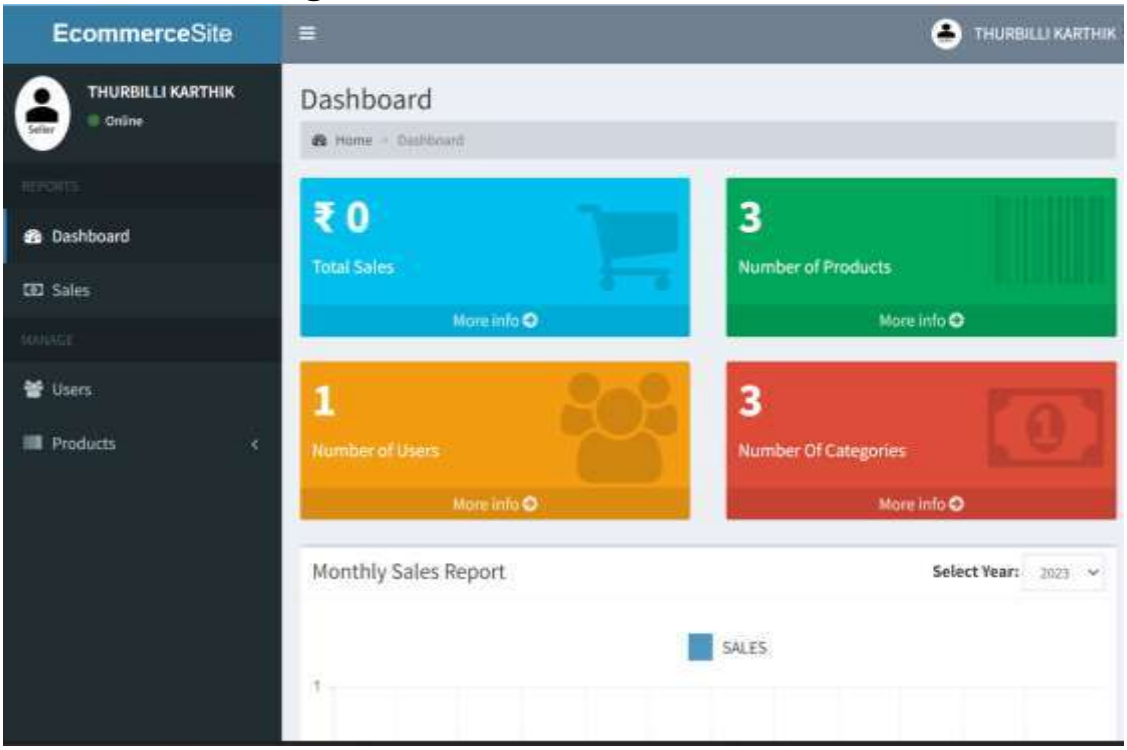


Fig 7.5. Seller Home Page

7.6 Seller Profile Page:

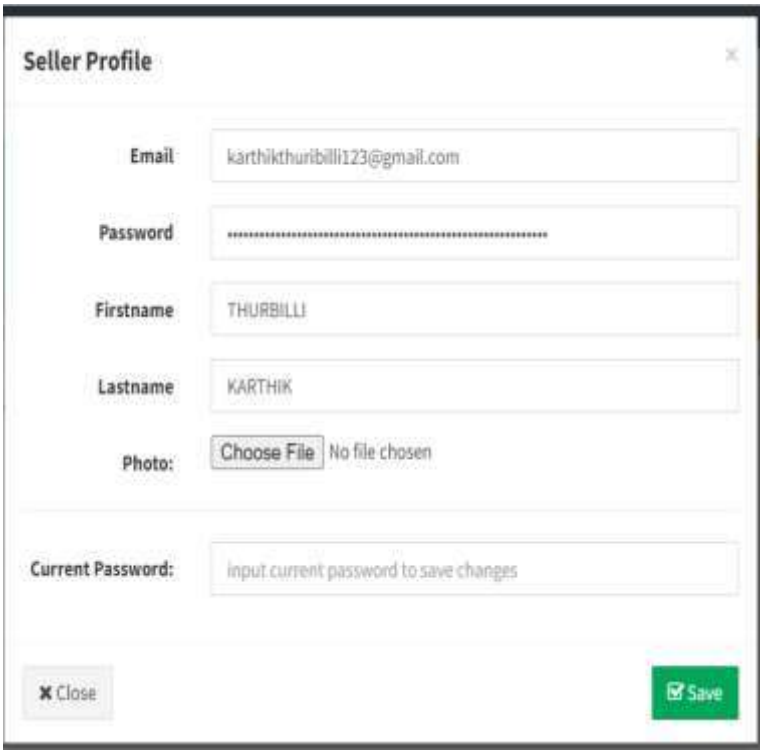


Fig 7.6. Seller Profile Page

7.7 Category List Page:

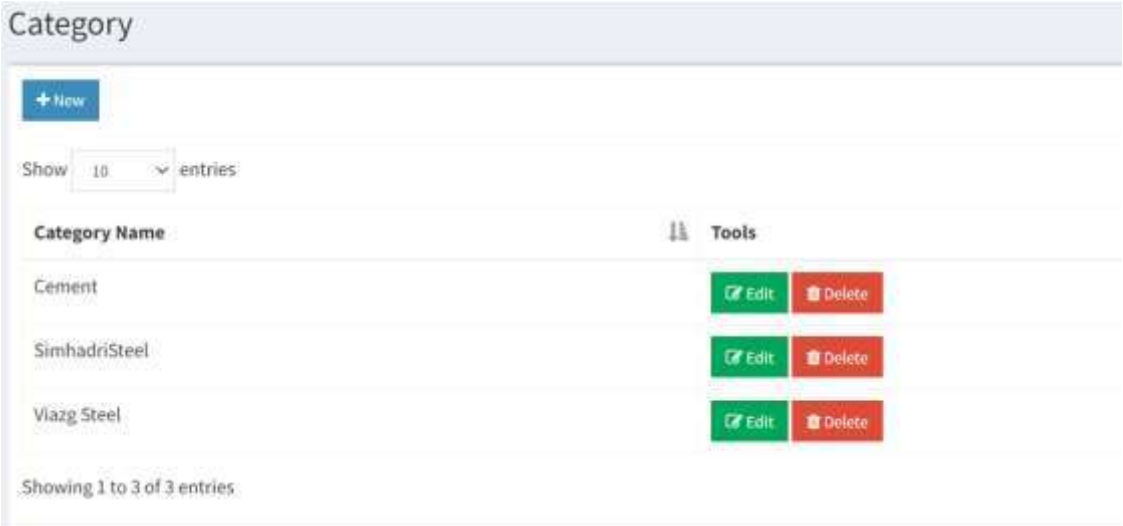


Fig 7.7. Category List Page

7.8 Category Add Page:

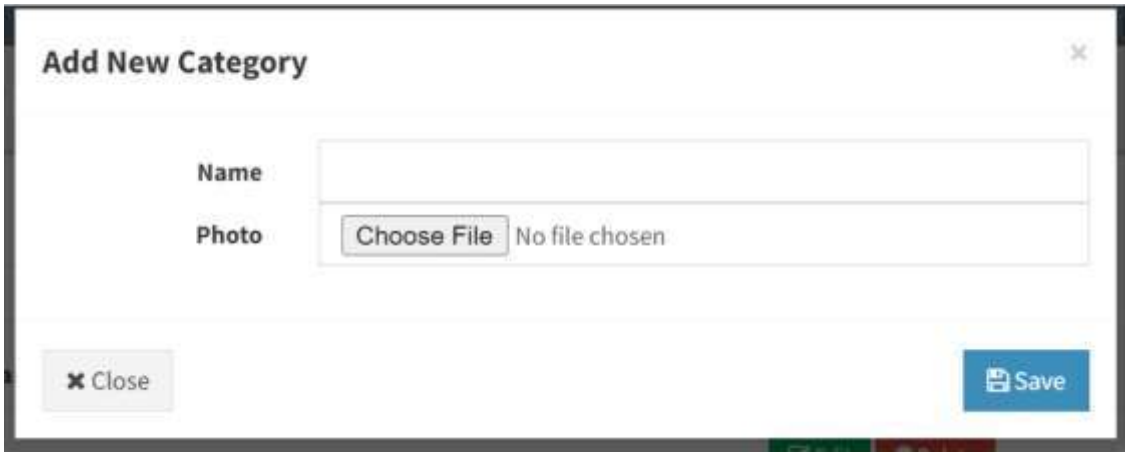


Fig 7.8. Category Add Page

7.9 Product Add Page:

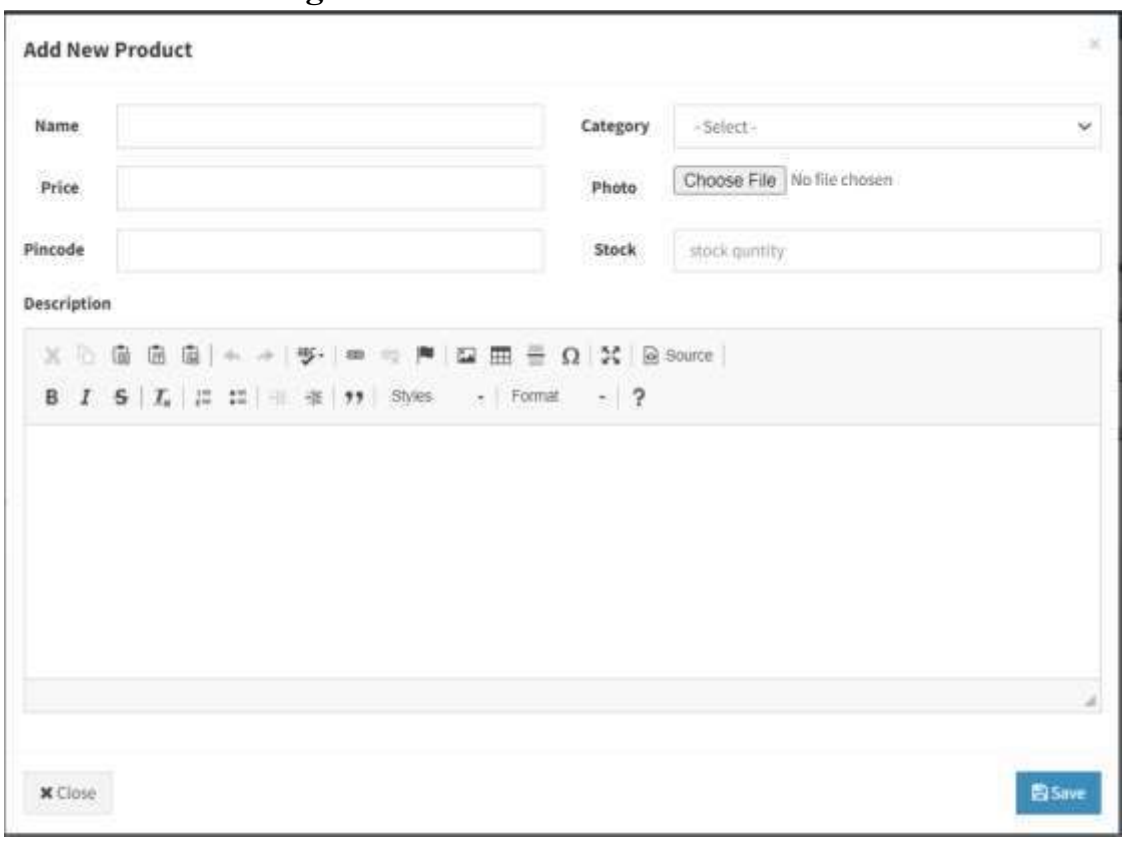


Fig 7.9. Product Add Page

7.10 Product List Page:

Fig 7.10. Product List Page

7.11 Users List Page:

Fig 7.11. Users List Page

7.12 Product Edit Page:

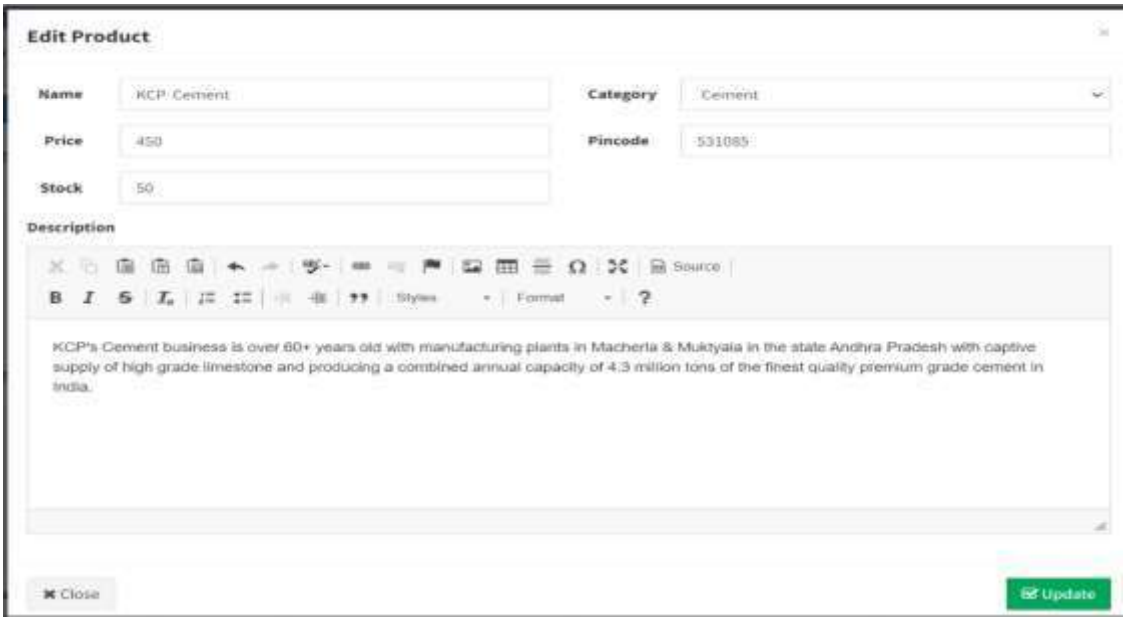


Fig 7.12. Product Edit Page

7.13 Customer Home Page:

Fig 7.13. Customer Home Page

7.14 Customer Profile Page:

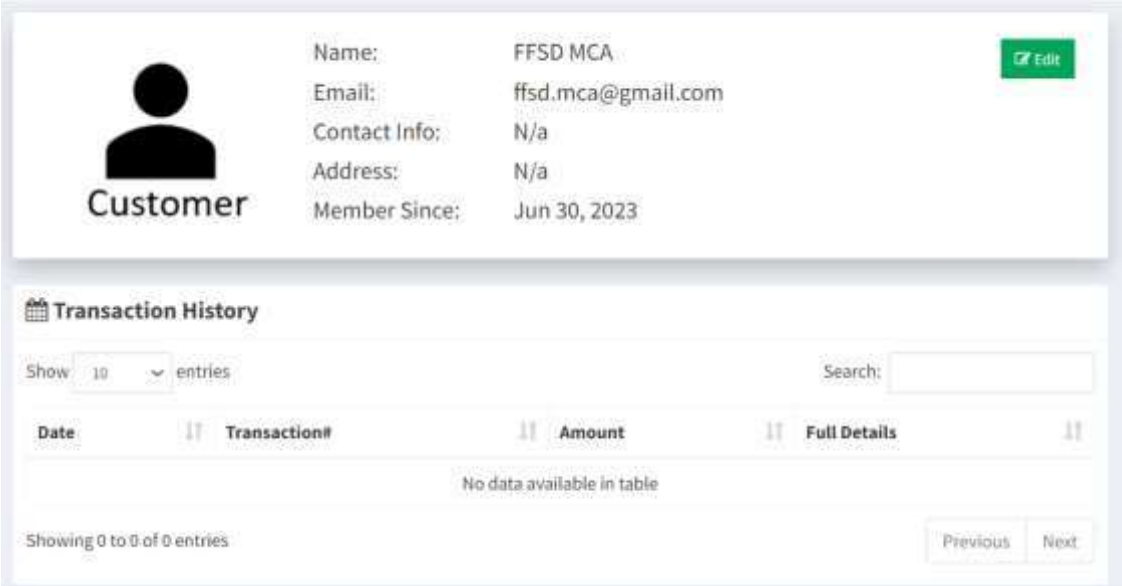


Fig 7.1. Customer Profile Page

7.15 Category Select Page:

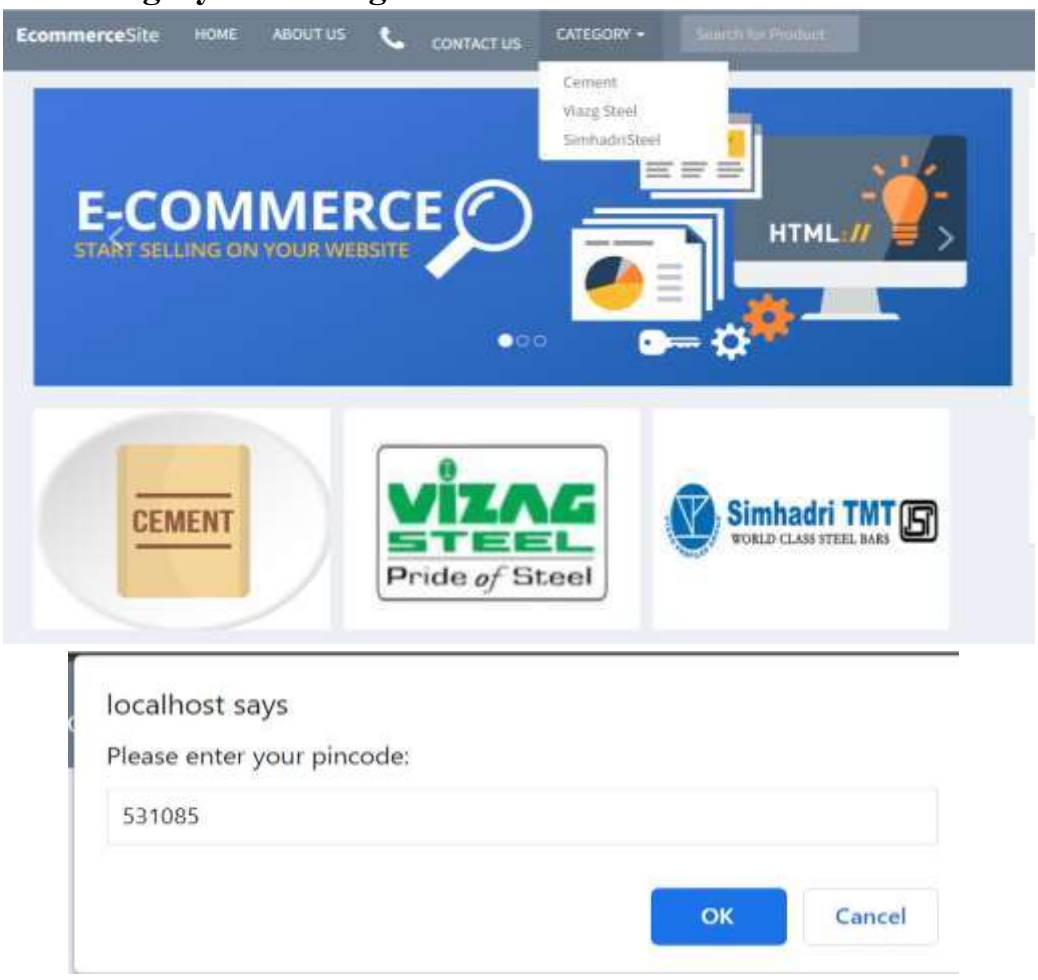


Fig 7.1. Category Select Page

7.16 Product List Page:

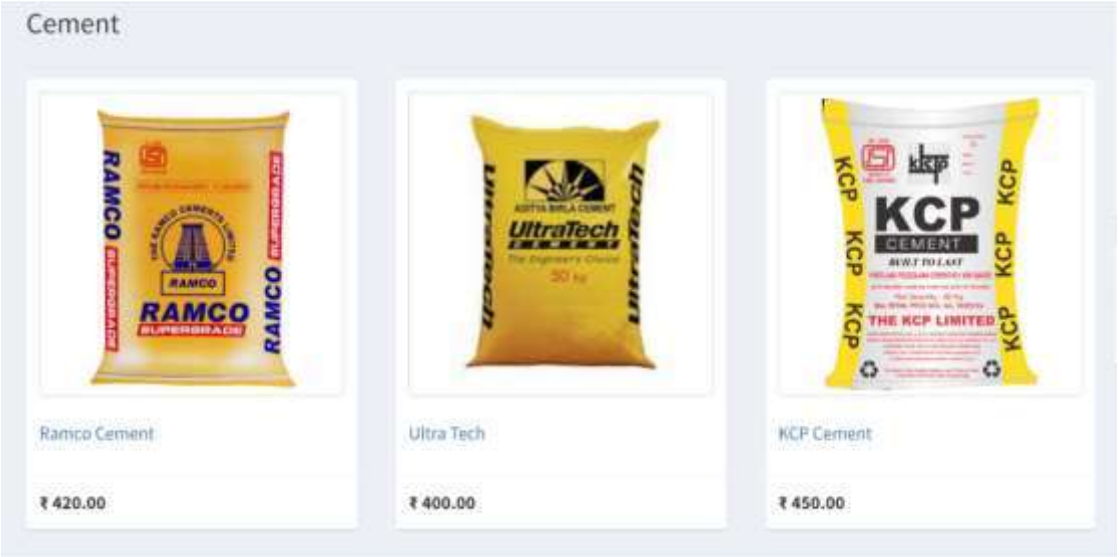


Fig 7.16. Product List Page

7.17 Add to Cart Page:

Fig 7.17. Add to Cart Page

7.18 Cart View Page:

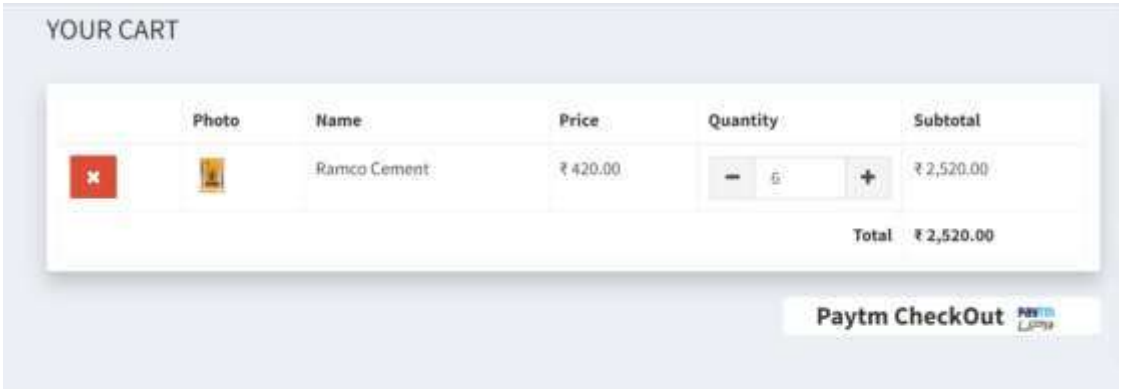


Fig 7.18. Cart View Page

7.19 Check Out Page:

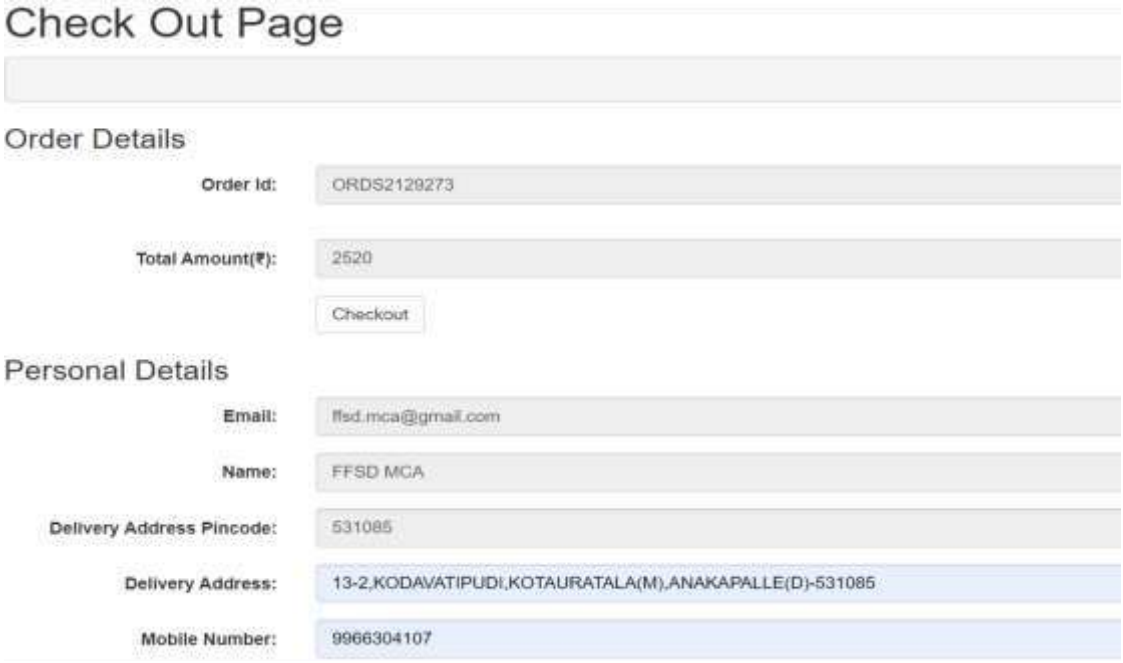


Fig 7.19. Check Out Page

7.20 Paytm Payment Page:

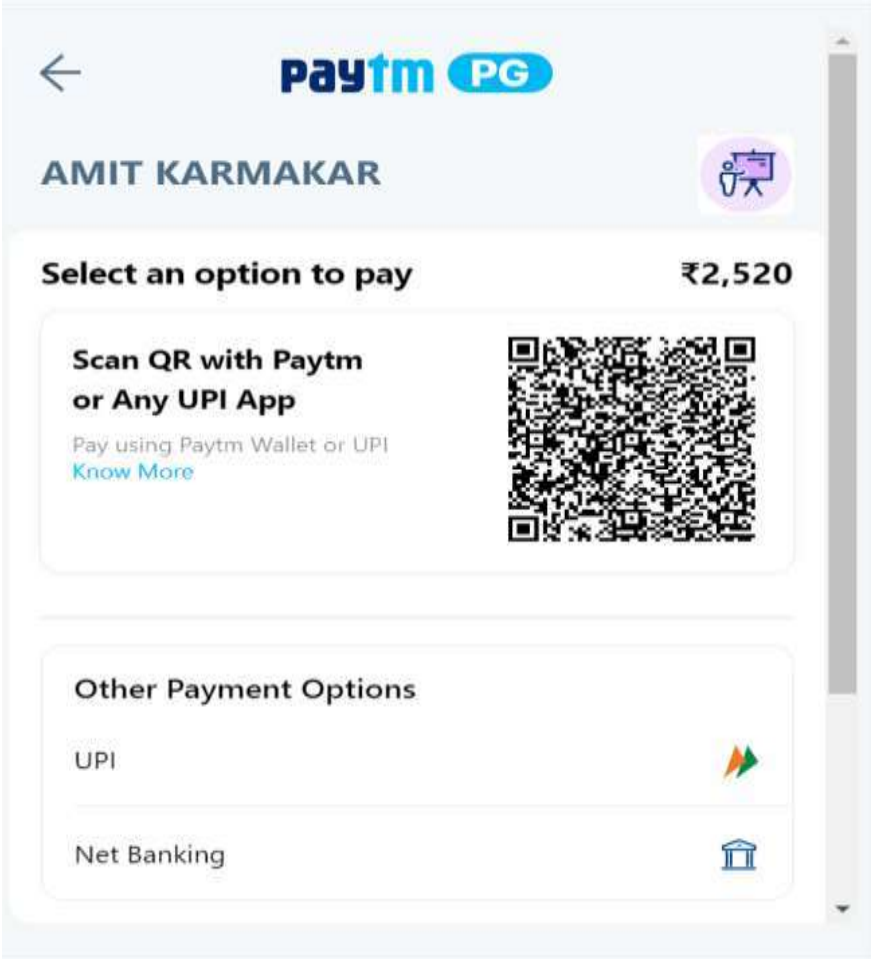


Fig 7.20. Paytm payment Page

7.21 Customer Transaction Page:

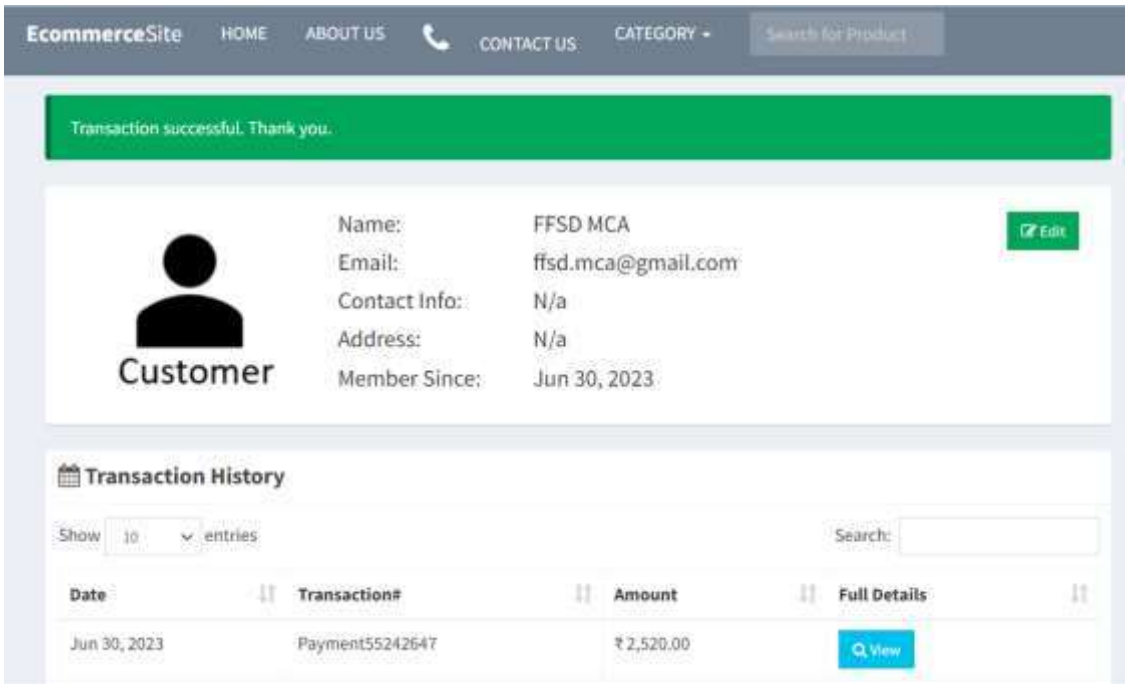


Fig 7.21. Customer Transaction Page

7.22 Seller Sales Page:

Fig 7.22. Seller Sales Page

7.23 Delivery Email Process:

Fig 7.23. Delivery Email Page

7.24 Email OTP Authentication Process Page:

Fig 7.24. Email OTP Authentication Process Page

7.25 Sales Graph Page:

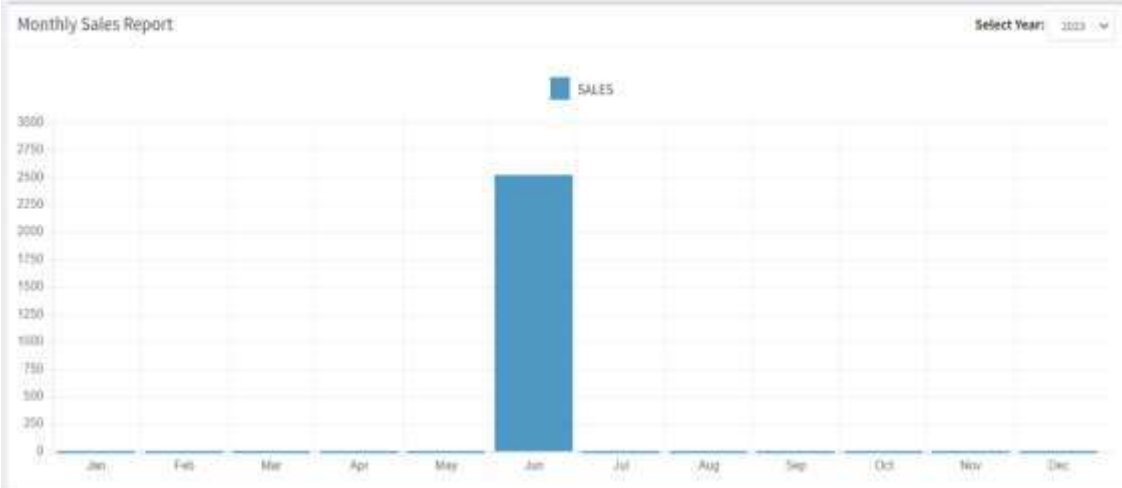


Fig 7.25. Sales Graph Page

7.26 Product Stock Validate Check Page:

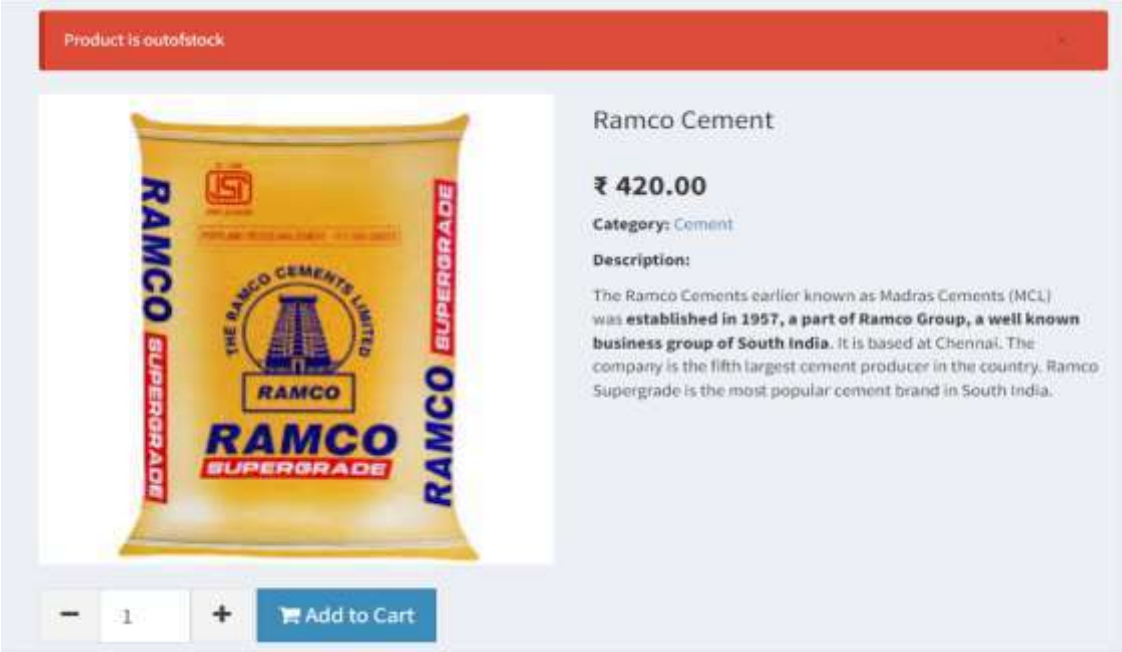


Fig 7.26. Product Stock Validate check Page

CHAPTER-8
CONCLUSION

This website provides a basic facility of e-commerce. which will benefit the Customers as well as the Sellers. It makes entire process online where Customer can search Products based on area pin code. The complete monitoring access is given to the seller only. The Seller can be able to maintain all the data that includes information about categories, products, users, transactions, delivery, and total sales in a month. Customer can be able to know the availability of products, they can view the details of the products, and the system will display the recent most viewed products, Customer can buy the products easy manner. The system is designed in a user-friendly manner.

REFERENCES

[1] Vaid,K.N.(1997) , " Waste control of building materials in construction of mass housing projects" , NICMAR journal of Construction Management, Vol 2, No.3 , January 1997

[2] Construction Material Supply Chain Process In The Local Construction Industry

[2.1]- P.G. Mr..Kulkarni Mukund, 2- Asso. Professor S.S. Deshmukh2, 3- Asso. Prof. S.S.Kudale3Dept. of civil Engineering , Trinity Academy of Engineering ,Pune ,Maharashtra ,India

Websites:

[1] https://www.materialtree.com/

[2] https://www.buildersmart.in/

[3] https://www.rodidust.com/

[4] https://github.com/paytm/Paytm_PHP_Checksum

[5] https://www.tawk.to/

[6] https://myaccount.google.com