

**MARKET MASTER: MULTI VENDOR ECOMMERCE WEB BASED
APPLICATION FOR SELL-BUY PRODUCTS**

BY

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This Report Presented in Partial Fulfillment of the Requirements for the Degree
of Bachelor of Science in Computer Science and Engineering.

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APPROVAL

This Project titled “Market Master”, submitted by *Zumon Hossain, ID: 192-15-13169* to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 13 January, 2025.

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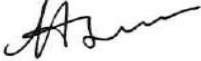
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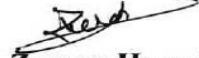
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ABSTRACT

Market Master is a comprehensive multi-vendor e-commerce platform designed to facilitate seamless buying and selling processes for vendors and administrators. This system provides an efficient and user-friendly experience, catering to the needs of both parties. Vendors can register by filling in essential details such as name, contact information, company address, shop logo, NID, trade license, and password. After logging in, a personalized dashboard allows vendors to manage orders, track earnings, and update product listings. Vendors can view order statuses, manage pending or approved orders, and update their profiles. The platform ensures transparency by offering detailed reports on sales, cash back income, and withdrawal history. For users, Market Master provides an intuitive interface to browse products by categories like clothing for men, women, and other essentials. Users can select items, view prices, sizes, colors, and apply discount coupons during checkout. An order tracking system enables users to monitor progress from placement to delivery. The admin panel streamlines operations, including managing orders, sales, vendors, and finances. Admin can approve, cancel, or package orders, assign courier services, and monitor the overall performance through detailed reports. Financial tools allow for profit calculation and vendor payments. Market Master serves as a unified platform for managing daily e-commerce operations, offering an all-in-one solution for product management, customer interactions, and financial administration. This platform eliminates the need for physical documentation and provides a streamlined digital experience for all participants.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Market Master is a comprehensive e-commerce platform designed to facilitate seamless buying and selling for vendors and administrators. I aim to provide an intuitive system where vendors can register, showcase their products, and manage their businesses efficiently, while users can explore and purchase a wide variety of items ranging from clothing to daily essentials. In Market Master, vendors can register by submitting essential information such as name, contact details, business credentials, and trade licenses. Upon approval, vendors gain access to a dedicated dashboard that allows them to add products, manage orders, track earnings, and request withdrawals. My platform ensures transparency by providing real-time updates on sales, order statuses, and customer feedback. Users can browse a diverse catalog of products categorized by type, price, and availability. By selecting items, users can review detailed descriptions, choose preferences such as size or color, and place orders with ease. During checkout, users fill in personal details, select payment methods like cash on delivery or mobile banking, and review order summaries. The platform also supports discount coupons to enhance user savings. Administrators oversee the entire process, ensuring smooth operations and efficient order management. My system enables admin to manage vendors, approve or cancel orders, track transactions, and generate detailed sales reports. Market Master serves as an all-in-one solution, simplifying business processes for vendors and offering users a convenient shopping experience. Its features ensure a balanced ecosystem where all participants benefit from streamlined interactions and robust functionalities.

1.2 Problem Statement

Managing a multi-vendor e-commerce platform requires a system that seamlessly integrates buying, selling, and administrative functionalities while ensuring ease of use and efficiency. Vendors often face challenges in registering, listing products, tracking orders, and managing earnings, while administrators must oversee operations like order approvals, payment processing, and vendor management. Similarly, customers seek a platform that provides a streamlined shopping experience, including product browsing, order placement, and tracking.

The lack of a unified solution creates inefficiencies for vendors and administrators, leading to missed opportunities and customer dissatisfaction. To address these challenges, I need to build a robust platform that supports dynamic vendor registration, comprehensive dashboards for tracking and managing activities, and an intuitive customer interface. This platform must ensure secure transactions, efficient order management, and transparency in earnings and withdrawals. Such a solution can simplify processes for all stakeholders and drive the success of the e-commerce ecosystem.

1.3 Motivation and Objectives

The motivation behind developing "Market Master" stems from my aim to create a versatile platform that bridges the gap between buyers and vendors while simplifying e-commerce processes. By enabling vendors to showcase their products and manage their business efficiently, I ensure a seamless buying and selling experience. My objective is to provide a user-centric system where individuals can easily browse and purchase items tailored to their needs. Vendors gain tools to manage orders, track earnings, and optimize their product listings, while I maintain robust administrative features to oversee the platform's operations. I am focused on integrating advanced functionalities, including detailed order tracking, diverse payment options, and real-time notifications, ensuring all users can efficiently interact with the platform. My vision is to establish "Market Master" as a comprehensive e-commerce solution that empowers users, enhances vendor productivity, and optimizes administrative management.

1.4 Project Scope

The scope of the Market Master project is to develop a comprehensive e-commerce platform that facilitates seamless buying and selling experiences for both vendors and users. I am providing a system where vendors can register by submitting details such as name, contact information, shop logo, and trade license. Once verified, vendors can manage products, view orders, track earnings, and process withdrawal requests through a dedicated dashboard. Users can browse and purchase items from various categories, view detailed product information, apply discounts, and track orders using an invoice number. I am including features like multi-payment methods (cash, mobile wallets) and real-time order tracking. The admin section allows managing vendors, orders, payments, and generating reports for operational efficiency. This platform is designed to ensure efficient transactions, transparent operations, and user satisfaction while enabling vendors and businesses to expand their reach and profitability.

1.5 Project Outcome

The outcome of this project is a robust e-commerce platform named Market Master that facilitates seamless buying and selling for vendors and admin. It provides vendors with a system to register, list products, manage orders, track earnings, and process withdrawals. Admin have comprehensive tools to manage users, orders, products, and finances while monitoring platform activity through detailed dashboards and reports. Market Master enables users to browse and purchase products conveniently, with features like order tracking, invoice generation, and payment options such as cash on delivery or digital wallets. Vendors can track sales, handle promotions, and withdraw earnings, while admin maintain platform efficiency by managing all activities effectively. The project delivers a streamlined solution for multi-vendor commerce, offering essential services like financial reporting, order processing, and business management. It reduces dependency on manual tasks and improves operational transparency, making it a complete digital marketplace solution.

1.6 Report Organization

This report is structured into several comprehensive chapters, each dedicated to a specific aspect of the "Market Master" project. The organization of the report is as follows:

Chapter 1: Introduction

This chapter sets the stage for the project by providing a detailed background study, outlining the research problem, and presenting the motivation and objectives. It also defines the scope of the project, describes the expected outcomes, and provides an overview of the report's structure. The sections in this chapter include:

1. Introduction: An overview of the project and its significance.
2. Problem Statement: A clear definition of the problem being addressed.
3. Motivation and Objectives: The reasons behind the project and the goals to be achieved.
4. Project Scope: The boundaries and extent of the project.
5. Project Outcome: The anticipated results and benefits of the project.
6. Report Organization: An outline of the report structure.
7. Summary: A brief summary of the introduction chapter.

Chapter 2: Literature Review

This chapter delves into existing research and related works that form the basis for the project. It provides an introduction to the topic, examines similar platforms and technologies, and concludes with a summary. The sections include:

1. Introduction: An overview of the literature review.
2. Related Works: Detailed analysis of existing works and how they relate to the project.
3. Summary: A summary of the findings from the literature review.

Chapter 3: Methodology

This chapter explains the methodology employed in the project. It encompasses the requirement analysis, proposed methodology and system design, data collection methods, business process modeling, and various diagrams illustrating the system's architecture. The sections include:

1. Introduction: An overview of the methodology.
2. Requirement Analysis: Identifying the needs and requirements for the project.
3. Proposed Methodology/System Design: The approach and design of the system.
4. Data Collection/Input Output Analysis: Methods of data collection and analysis.
5. Business Process Modeling: Diagrammatic representation of business processes.
6. Flowchart: Flowchart illustrating the system's workflow.
7. ER Diagram: Entity-Relationship diagram depicting the database structure.
8. Class Diagram: Class diagram showing the object-oriented design.
9. MVC Diagram: Model-View-Controller diagram for the system architecture.
10. Project Management and Financial Analysis: Management strategies and financial considerations.
11. Summary: A summary of the methodology chapter.

Chapter 4: Requirement Analysis and Design Specification

The sections include:

1. Front-End Design: Design and layout of the user interface.
2. Back-End Design: Design and structure of the server-side components.
3. Interaction Design and User Experience (UX): Principles and practices for enhancing user interaction and experience.

Chapter 5: Implementation and Testing

The sections include:

1. Implementation of Database: Steps and processes involved in setting up the database.
2. Implementation of Front-End Design: Development of the front-end interface.
3. Testing Implementation: Methods and strategies used for testing the system.
4. Test Results and Reports: Documentation of the testing outcomes and analysis.

Chapter 6: Impact on Society, Environment, and Sustainability

1. This chapter explores the broader impacts of the project on society and the environment, addressing ethical aspects and sustainability considerations. The sections include:
2. Impact on Society: How the project benefits or affects society.
3. Impact on Environment: Environmental considerations and impacts.
4. Ethical Aspects: Ethical issues and considerations related to the project.
5. Sustainability Plan: Strategies for ensuring the long-term sustainability of the project.

Chapter 7: Conclusion and Future Work

The sections include:

1. Discussion and Conclusion: A detailed discussion and final thoughts on the project.
2. Scope for Further Developments: Suggestions and plans for future enhancements and expansions of the project.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In paper [1], "Evolution of E-commerce Websites: A Conceptual Framework and a Longitudinal Study", the authors, Sung-Chi Chu, Lawrence C. Leung, Yee Van Hui, and Waiman Cheung, examined the evolution of e-commerce websites from 1993 to 2001. They proposed that e-commerce websites have evolved in four distinct eras, driven by technological advancements and business integration. The study emphasized the shift from early electronic data interchange (EDI) to the widespread use of the Internet and the World Wide Web, enabling businesses to manage operations through e-commerce websites. The authors provided a conceptual framework to chart the evolution, highlighting how these websites have adapted to meet the growing demands of both enterprises and consumers. In paper [2], "Success of Electronic Commerce Websites: A Comparative Study in Two Countries", the authors, Jengchung V. Chen, DuangjaiRungruengsamrit, T.M. Rajkumar, and David C. Yen, explored the success factors of e-commerce websites in Taiwan and Thailand. The study introduced a model that incorporated user attitudes toward websites and the impact of cultural differences. The findings showed that information quality was a key factor influencing both user satisfaction and attitudes toward the website in both countries. Additionally, the study highlighted the role of cultural effects and online shopping attitudes in moderating the relationship between system quality and user satisfaction. In paper [3], "Determinants of E-commerce Website: Website Design: Experts vs. Consumers", authors Efraim Turban and Dave Gehrke investigated the critical determinants of effective e-commerce website design. The study reviewed literature on factors like page loading speed, business content, navigation efficiency, security, and marketing/customer focus, and compared expert opinions with consumer perceptions. The results indicated significant differences between experts and consumers in terms of what they prioritized in website design. For example, consumers placed more importance on factors like navigation efficiency and security, while experts focused more on business content and marketing strategies. In paper [4], "Dynamic Conversion Behavior at E-Commerce Sites", Wendy W. Moe and Peter S. Fader developed a model to predict customer conversion behavior on e-commerce websites. Their study focused on understanding the factors that influence the probability of a

customer making a purchase after visiting an e-commerce site. The authors proposed a flexible model that decomposed conversion behavior into visit effects and purchasing threshold effects, which varied across customers and over time. The model demonstrated its effectiveness in predicting conversion behavior and provided valuable insights into how customers interact with e-commerce sites, including the role of hedonic browsing and psychological resistance to purchasing. In paper [5], "Factors Affecting E-Commerce Website Effectiveness", Godwin J. Udo and Gerald P. Marquis explored the factors that contribute to the effectiveness of e-commerce websites, with a focus on repeat visits by users. Through a survey of 117 e-commerce customers, the authors identified key design factors that significantly impact website effectiveness. These factors included download time, navigation ease, graphics usage, and interactivity. The study found that these factors were crucial in encouraging repeat visits, while other factors like the use of frames, consistency, and advertisement volume did not have a significant impact on effectiveness. The findings offered practical guidelines for website design to enhance user retention. In paper [6], "Consumer Trust in E-Commerce Websites: A Meta-Study", Patricia Beatty, Ian Reay, Scott Dick, and James Miller conducted a meta-study on trust in e-commerce systems. The paper discussed the critical role of trust in the success of e-commerce websites, highlighting the lack of a clear theoretical framework for trust in e-commerce. The authors proposed a qualitative model that incorporated various factors influencing consumer trust, such as website security, transparency, and business operations. They emphasized the need for future research to refine this model and provide more practical guidance for building consumer trust in e-commerce websites. The study also called for more focused conceptual and methodological approaches to better understand the dynamics of trust in the online environment. These papers collectively address various aspects of e-commerce website design, user behavior, trust, and effectiveness, providing valuable insights into the evolution and success of e-commerce platforms across different cultures and regions.

2.2 Related Works

The development of my "Market Master" involved a strategic selection of back-end and front-end technologies to ensure a seamless and effective implementation of website functionalities tailored to the medical context. The following technologies were meticulously chosen for their compatibility and efficiency in delivering the desired user experience:

HTML5 [13]	HTML stands for Hypertext Markup Language which allows the user to make and structure sections, paragraphs, headings, titles, line breaks, add media, links, block quotes, etc. for websites and applications.
CSS [14]	Stands for Cascading Style Sheets which is a simple design language intended to simplify the method of constructing this website presentable. It's designed to enable the separation of presentation and content,
MySQL[15]	MySQL is an open-source relational database management system (RDBMS) that uses structured query language (SQL) for managing and organizing data. It's widely used for web applications, offering high performance, scalability, and reliability in handling large datasets.
MySQL Database [16]	MySQL Database is a widely-used, open-source relational database management system that stores and manages data. It uses SQL for querying and supports features like multi-user access, data integrity, and scalability, making it ideal for web and enterprise applications.
PHP[17]	PHP (Hypertext Preprocessor) is a widely-used, open-source server-side scripting language designed for web development. It allows developers to create dynamic and interactive websites by embedding code within HTML, enabling efficient handling of databases, forms, and sessions.

CS-Cart allows businesses to create a multi-vendor marketplace where each vendor can manage their own products, orders, and sales. It supports customizable commissions and offers robust vendor management features, ideal for creating an e-commerce store with multiple independent vendors [7].



Figure 2.1: CS-Cart Multi-Vendor

Webkul's extension for Magento transforms a Magento store into a full-featured marketplace with features like vendor management, product listings, and individual vendor dashboards. Admins can control the platform's design and manage vendor commissions [8].

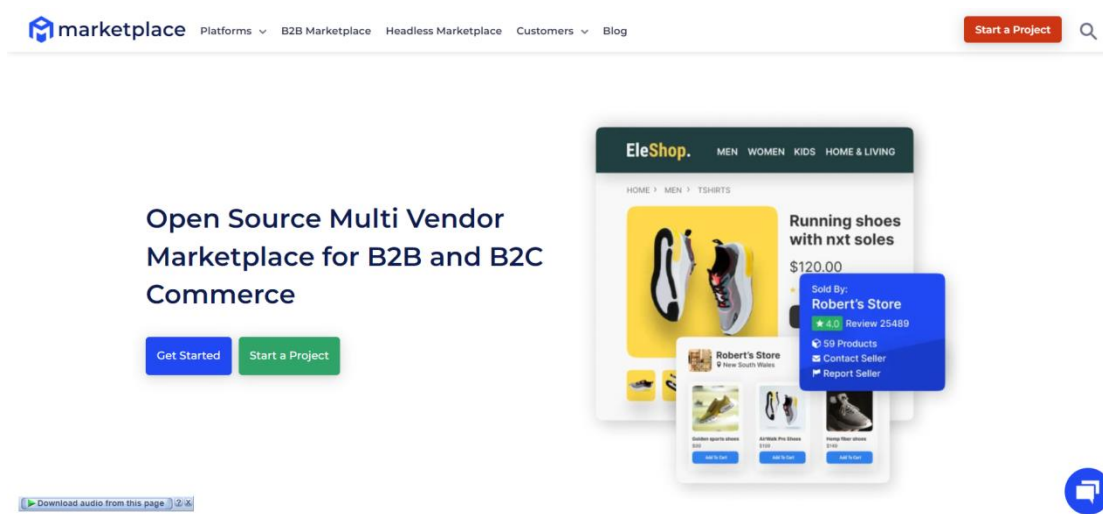


Figure 2.2: Webkul Marketplace

ShipTurtle focuses on automating order management, tracking, and shipping for multi-vendor businesses. It integrates with over 200 shipping providers and can manage orders from various vendors with ease[9].

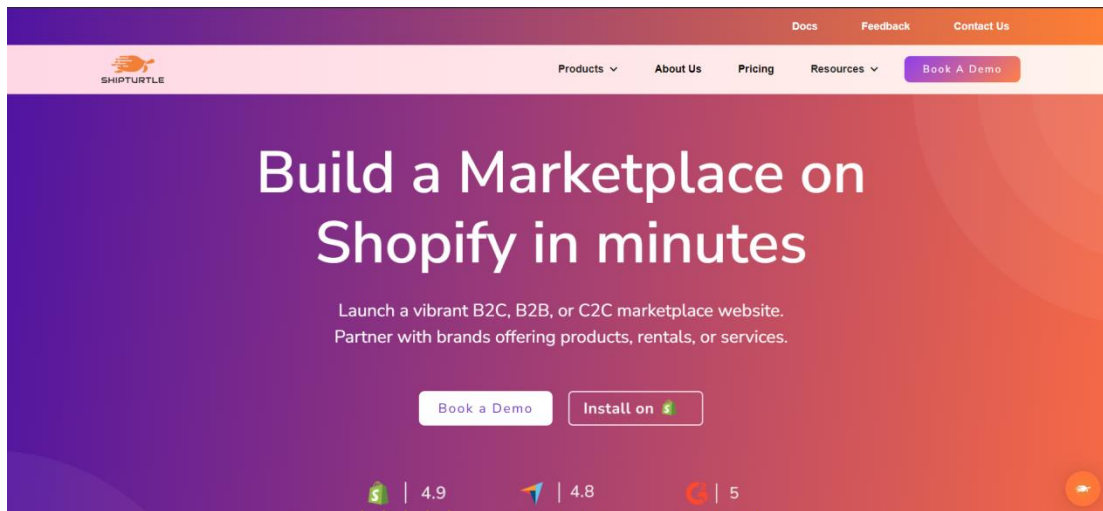


Figure 2.3: ShipTurtle

Onport helps businesses manage multi-vendor marketplaces and drop shipping operations. It automates order routing, inventory management, and product synchronization, which is useful for scaling operations [10].

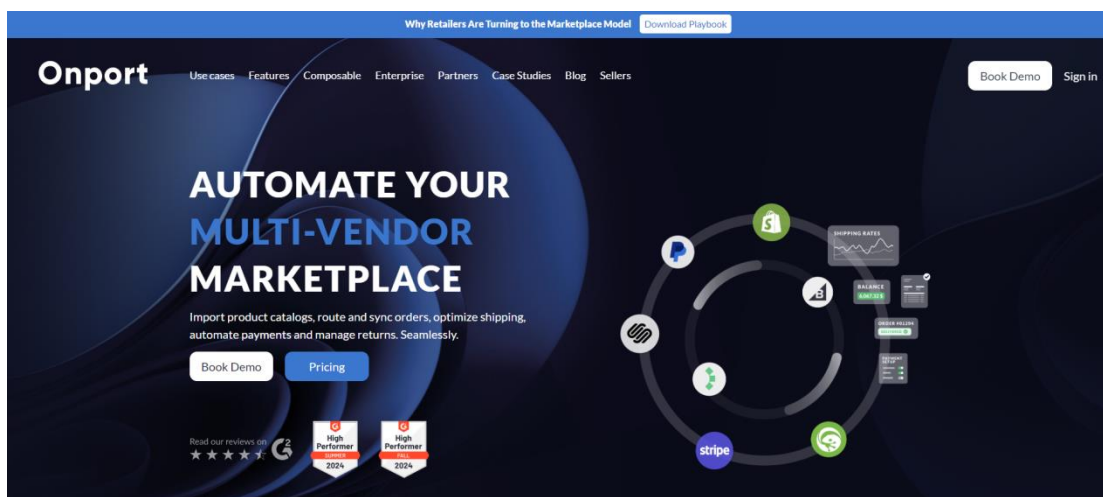


Figure 2.4: Onport

Shopify Plus offers an enterprise-level solution for creating multi-vendor marketplaces. It features advanced e-commerce functionalities, including customizable vendor profiles, product management, and secure payment systems. Shopify Plus supports scalability for large businesses [11].

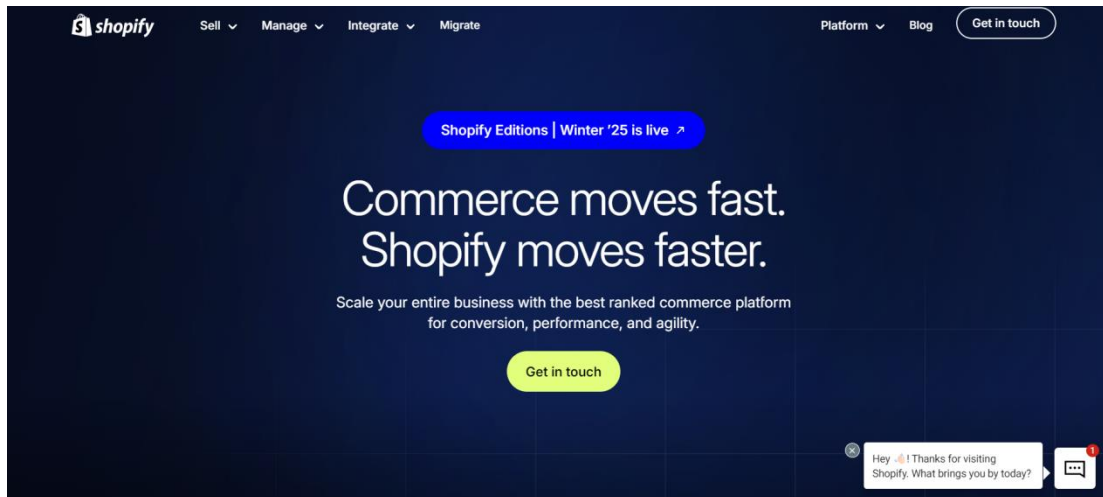


Figure 2.5: Shopify Plus

Arcadier offers a SaaS platform for building online marketplaces with both physical and digital goods. It allows vendors to create their own stores and manage their products while the platform handles payments, fees, and commissions [12].

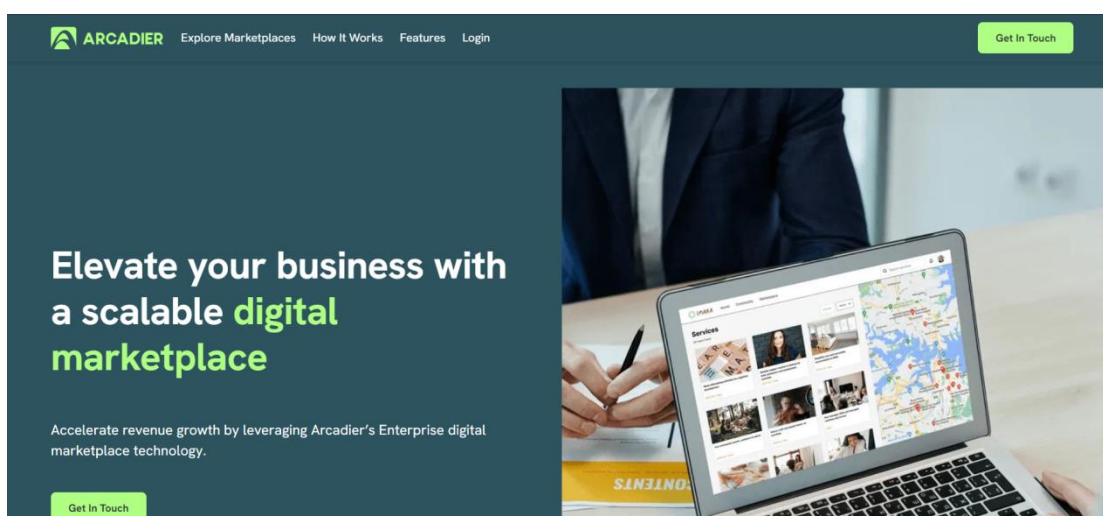


Figure 2.6: Arcadier

CHAPTER 3

METHODOLOGY

3.1 Introduction

The methodology outlines the systematic process followed in developing the e-commerce platform, "Market Master." This platform aims to create a seamless buying and selling experience by integrating features for users, vendors, and administrators. My focus was on designing a robust architecture that ensures efficiency, scalability, and user-friendliness. The methodology provides a detailed account of how I structured the project development, including the tools, frameworks, and practices used to achieve the desired objectives. In this platform, the user interacts with the system to browse products, place orders, and track them efficiently. For vendors, a comprehensive dashboard facilitates the management of products, orders, and financial transactions. The admin panel empowers administrators to oversee operations, approve vendors, and manage the platform seamlessly. I designed this methodology to address the needs of all stakeholders while maintaining data integrity and security. I adopted an iterative development approach, which allowed continuous feedback and refinement. Key stages included requirement analysis, system design, implementation, testing, and deployment. My choice of technologies, such as a secure database system and responsive front-end frameworks, ensures compatibility across devices and platforms. The methodology emphasizes modular development to enable future scalability and integration of advanced features. This chapter elaborates on the techniques, tools, and structured workflow I employed to achieve the objectives of "Market Master." Each section of the methodology reflects the systematic and strategic efforts made to ensure that the platform delivers an efficient and reliable user experience.

3.2 Requirement Analysis

The "Market Master" platform requires a robust system to support both vendor and user interactions, ensuring a seamless buying and selling experience. For users, the system needs to provide an intuitive interface to browse products, view detailed information, place orders, and track them in real-time. It should support multiple payment options, including Cash on Delivery and digital wallets. On the vendor side, the platform must allow easy registration,

product management, and order tracking. Vendors should be able to manage earnings, request withdrawals, and monitor the status of their products and orders. The admin section requires comprehensive order and account management tools, including order approvals, product categorization, and financial tracking. The system should also be scalable, ensuring smooth performance even as traffic grows, and secure, with data protection features to ensure both users' and vendors' information is safe. The platform should be responsive and easily accessible across various devices.

3.3 Proposed Methodology/System Design

The proposed methodology for the "Market Master" platform follows a user-centric design, focusing on creating an intuitive and seamless experience for both vendors and users. The system will be built using modern web technologies such as MySQL for the frontend, MySQL Database for the database, and Node.js for server-side logic. The platform will include features like product listing management, real-time order tracking, and secure payment processing for users. Vendors will have dedicated dashboards for managing orders, products, and earnings, while the admin will have full control over product categories, order approval, and vendor management.

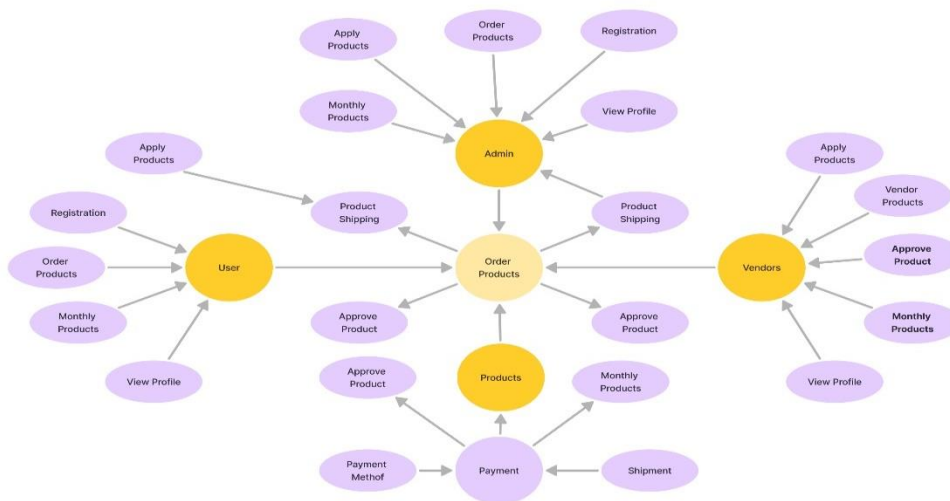


Figure 3.1: Proposed Methodology

To ensure scalability, the system will use Restful APIs for communication between the frontend and backend, allowing easy integration of future features. Security will be

prioritized through data encryption and secure user authentication. Additionally, the platform will support multiple payment methods, such as cash on delivery, mobile wallet payments, and bank transfers.

3.4 Data Collection/Input Output Analysis

In the Market Master system, data collection plays a crucial role in ensuring smooth operations for both vendors and users. The primary input data comes from user interactions, including product searches, orders, and payment details. Vendors also input data such as product listings, stock levels, pricing, and shipping details. This input is processed in real-time, updating the database with each action. For output, users receive real-time information such as product availability, prices, order confirmations, and tracking details. Vendors are provided with order summaries, sales data, and payment information. The system also generates reports for both users and vendors, displaying transaction histories, earnings, and order statuses. By analyzing this data, I can optimize user experience, ensure inventory accuracy, and facilitate vendor management. The collected data is securely stored and processed to maintain efficient operations and provide accurate, timely updates to all involved parties.

3.5 Business Process Modeling

Business Process Modeling (BPM) is a method used to represent the workflows and processes within a business system. It helps to visualize, analyze, and improve processes to ensure efficiency and effectiveness. I use BPM to document processes, identify bottlenecks, and streamline operations. By creating flowcharts, diagrams, or models, I can better understand the sequence of tasks, decisions, and interactions within a business environment. BPM allows me to define roles, responsibilities, and interactions among stakeholders, including vendors, customers, and administrators. This clarity helps in decision-making and resource allocation. Additionally, BPM supports continuous improvement by highlighting areas for optimization and automation. In an e-commerce platform like Market Master, I model the order flow, from vendor product listings to order placement, processing, and delivery. This ensures smooth operation, improves user experience, and increases operational efficiency by providing insights into every step of the business process.

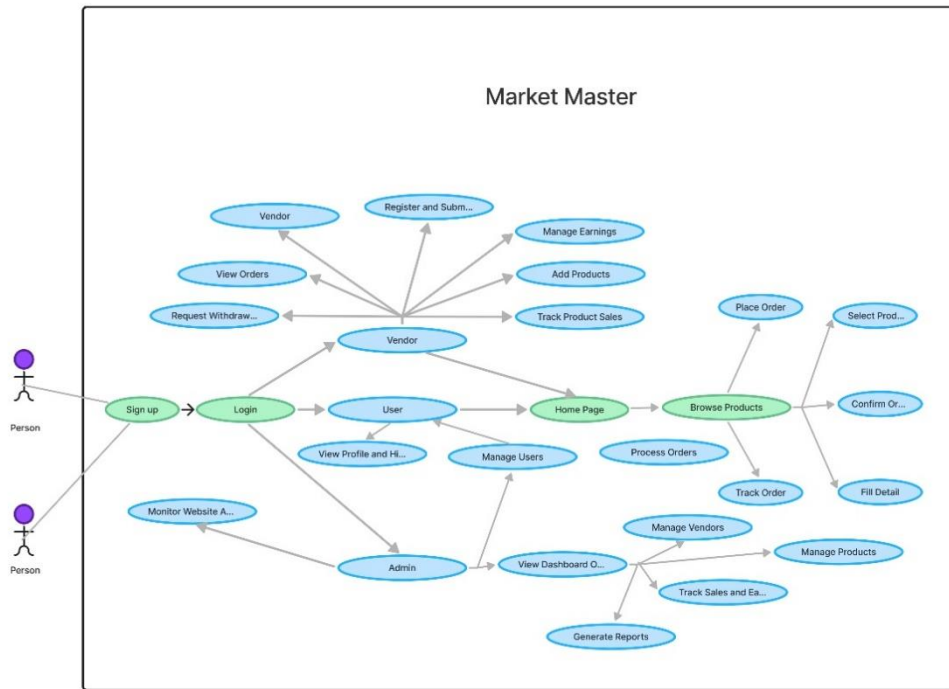


Figure: 3.2 Business Process Model Market Master

3.6 Flowchart

User Flowchart After the user arrives, he can first buy the product by registration. The process from user registration to process fills in the (name, email, mobile number, and password). After the user registers, he will get a dashboard where he can see all his information, exam of order summary and real-time updates order tracking.

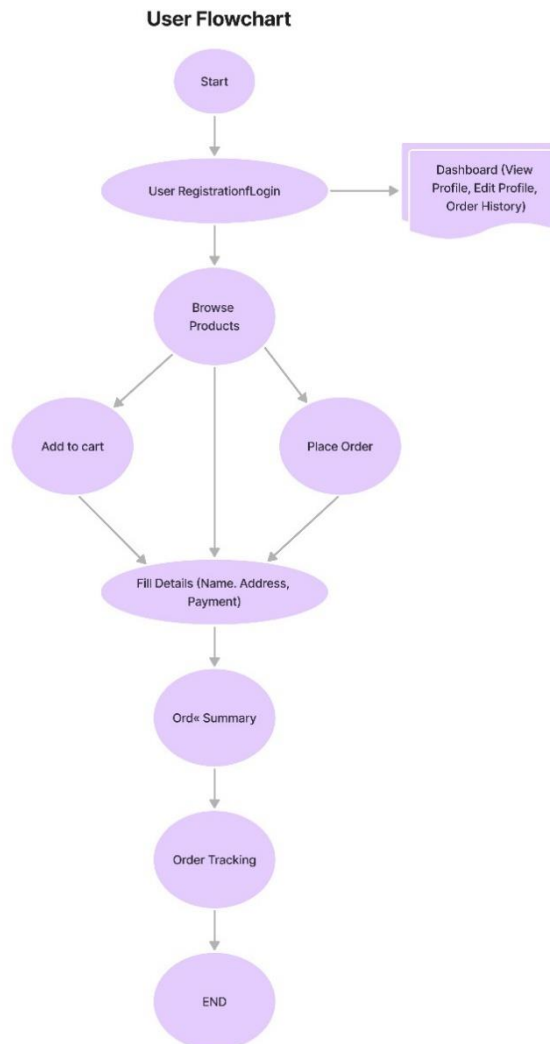


Figure: 3.3 Flowchart of Market Master User

Admin Flowchart The flowchart for the admin system shows the process from admin registration to dashboard access. After registration, I fill in my details, (name, email, mobile number, password), and registration to admin dashboard. On the dashboard, I manage orders, products, vendor, products sale, view report, process payments and real-time updates on each task.

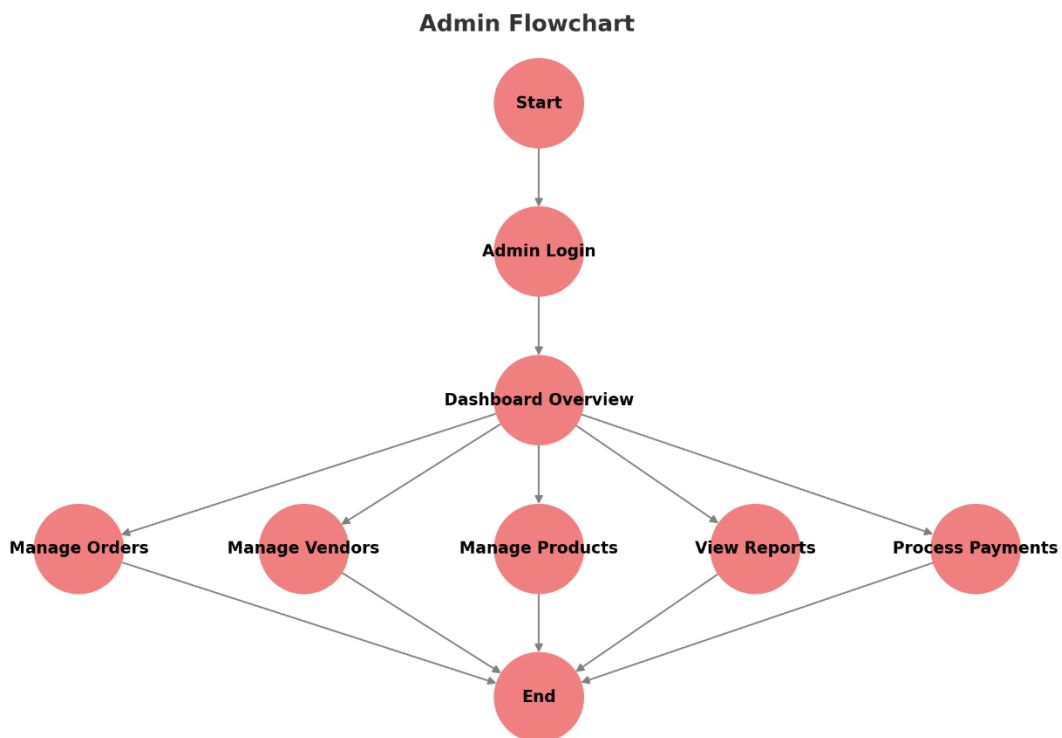


Figure: 3.4 Flowchart of Market Master Admin

Vendor FlowchartThe flowchart for the vendor system shows the process from vendor registration to dashboard access. After registration, I fill in my details, upload necessary documents (NID, trade license), and log in. On the dashboard, I manage orders, products, earnings, and withdrawals, with real-time updates on each task.

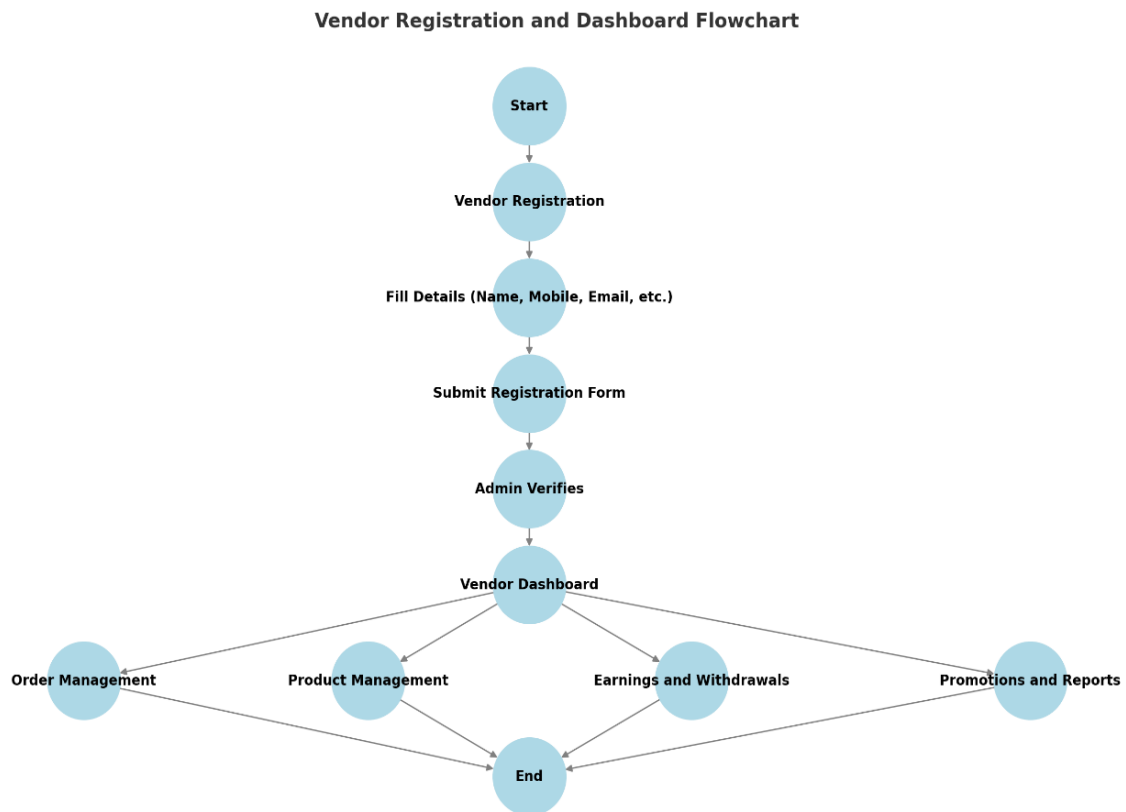


Figure: 3.5 Flowchart of Market Master Vendor

3.7 ER Diagram

A system's structure is depicted in the ER diagram, which highlights important entities including users, administrators, and categories. A number of components, including the user dashboard, Vendor and Admin Management, are reconnected via the primary relationship manage. Entities are associated with attributes (such as ID, name and password), whereas system interactions are represented by relationships like Access and Placing Order. It draws attention to procedures such as vendor administration, category handling and profile modification.

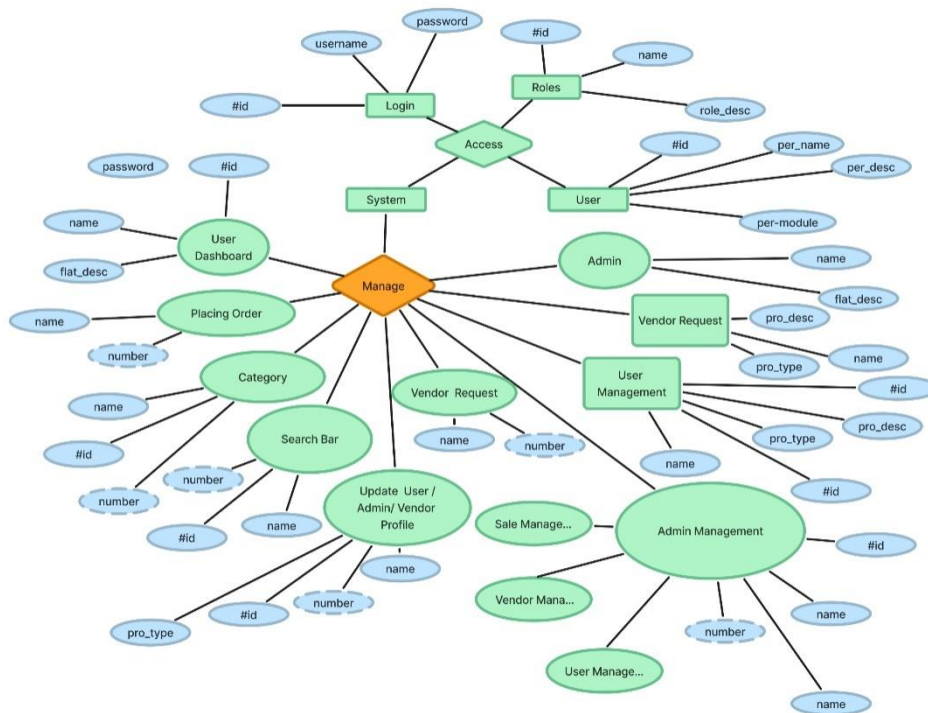


Figure: 3.6 ER Diagram

3.8 Class Diagram

This class diagram illustrates the fundamental classes and their connections inside a Market Master System. With features including search ID and geographical information, the Market Master serves as the main entity. The Vendor and Admin are represented by distinct properties in the system, including names, contact information and user/vendor/IDs. Product name, price, order quantity, rating and comments are among the attributes of the core operating classes of product, order and review. Control Log in credentials and users specific data. Address, status and tracking number are among the attributes that shipping handles for delivery details. Classes define their properties, functions and connections to other things.

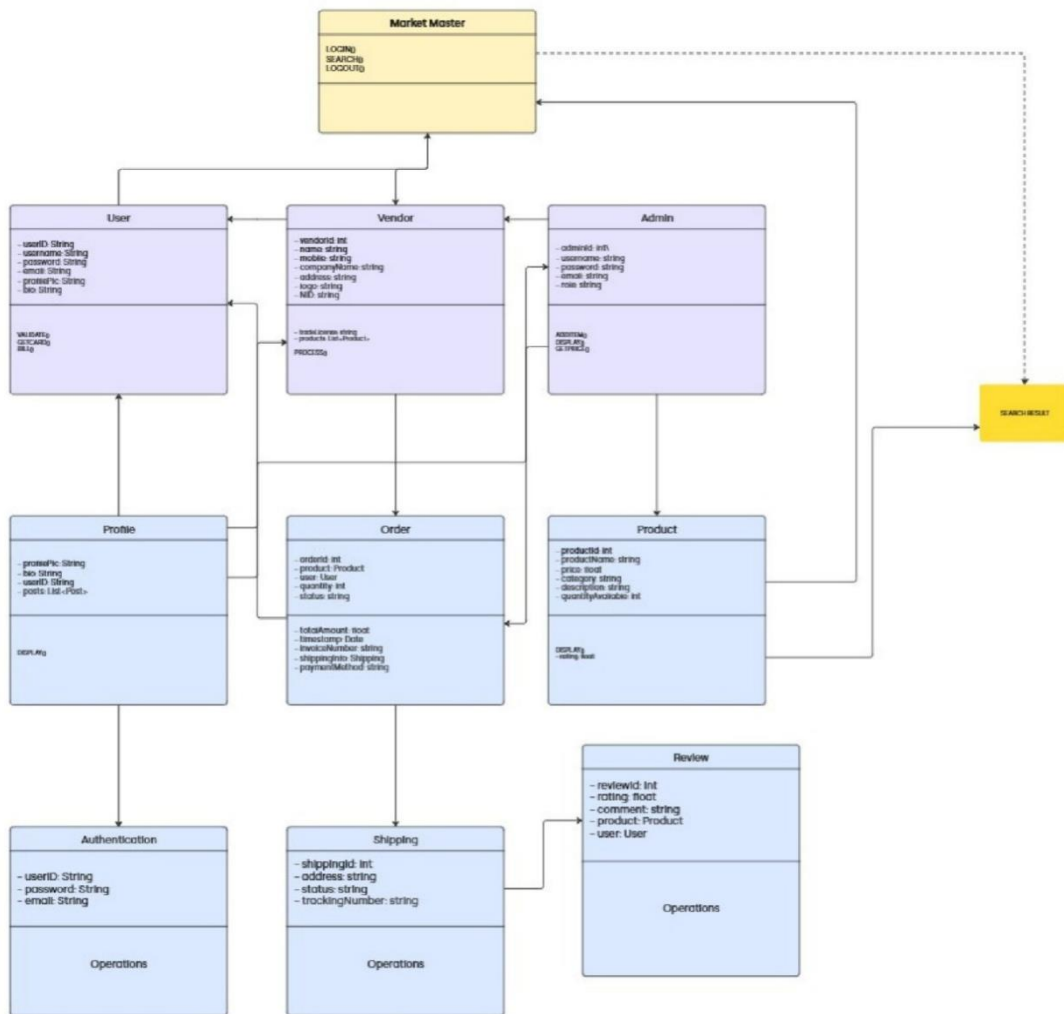


Figure: 3.7 Class Diagram

3.9 MVC Diagram

Three stages are depicted in this MVC diagram UI Tier Using JavaScript, HTML, CSS, and Node.js for desktop and mobile platforms. Using controllers, the business logic tier manages user input, validations and application logic. Data Tier Uses a MySQL database connection to store and retrieve data. It demonstrates how the database, logic and user interface all function in a seamless flow.

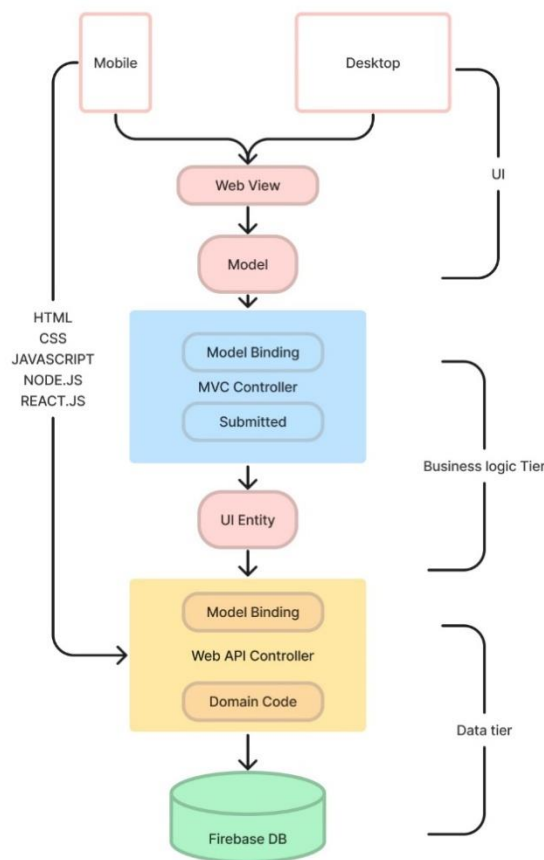


Figure: 3.8: MVC Diagram

3.10 Project Management and Financial Analysis

In this section, I focus on managing the entire project from start to finish. I handle all tasks, including planning, execution, monitoring, and closure. I ensure that the project stays within budget, meets deadlines, and aligns with goals. Financial analysis is a key part of this process. I analyze all revenue, costs, and profits, tracking every transaction and expense. I manage cash flow, ensuring the project's financial health. By using detailed reports, I evaluate performance, identify inefficiencies, and optimize costs. All decisions regarding the budget, spending, and financial strategies are solely made by me, ensuring complete control over the financial outcomes of the project.

CHAPTER 4

REQUIREMENT ANALYSIS AND DESIGN SPECIFICATION

4.1 Front-End Design

The front-end design of "Market Master" focuses on a user-friendly, visually appealing interface that ensures seamless navigation. The homepage displays clear categories like Men's, Women's, Fashion, and more, with intuitive filtering options. Product listings show essential details such as price, size, and color, with a quick view option for further information. The product page includes an interactive "Add to Cart" feature, allowing quantity selection and order placement. A clean checkout process gathers user details, payment preferences, and order summaries. The dashboard is organized for vendors, showing key metrics like total sales, pending orders, and earnings. The design is responsive, ensuring smooth access on both desktop and mobile devices, making shopping and managing orders simple and efficient.

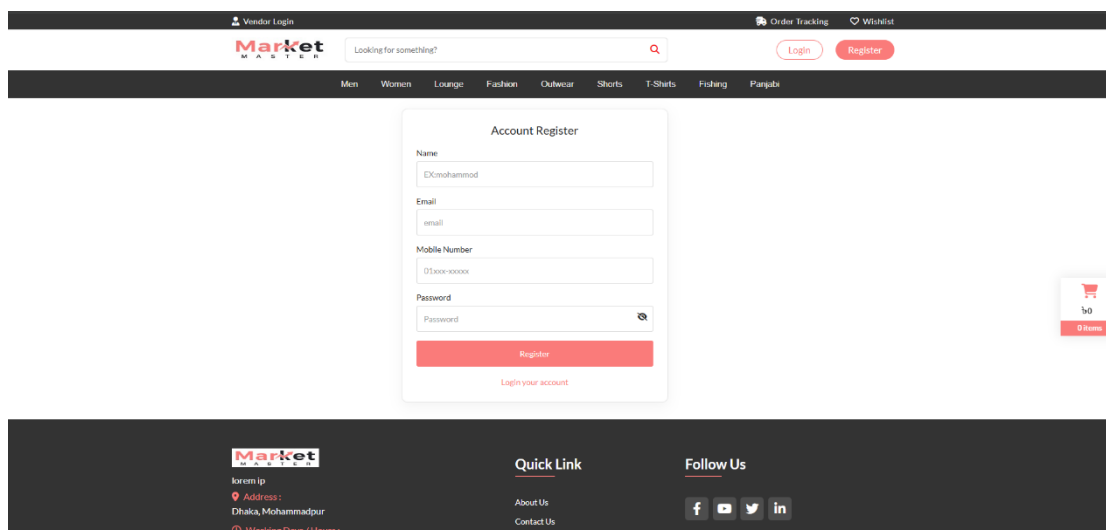


Figure: 4.1 Sign up page

Login:

The login methodology for Market Master allows users to access their accounts securely via main methods: email/password login. Users can sign up for an account by providing a valid email address and password. If a user already has an account, they can log in by entering their credentials, ensuring secure access to their profile and booking information. Additionally, a user can log in directly using their Google account for faster authentication. Once logged in,

users gain access to features like hotel browsing, booking, and viewing their statistics. The system ensures that login data is securely managed and that user information is protected throughout the process.

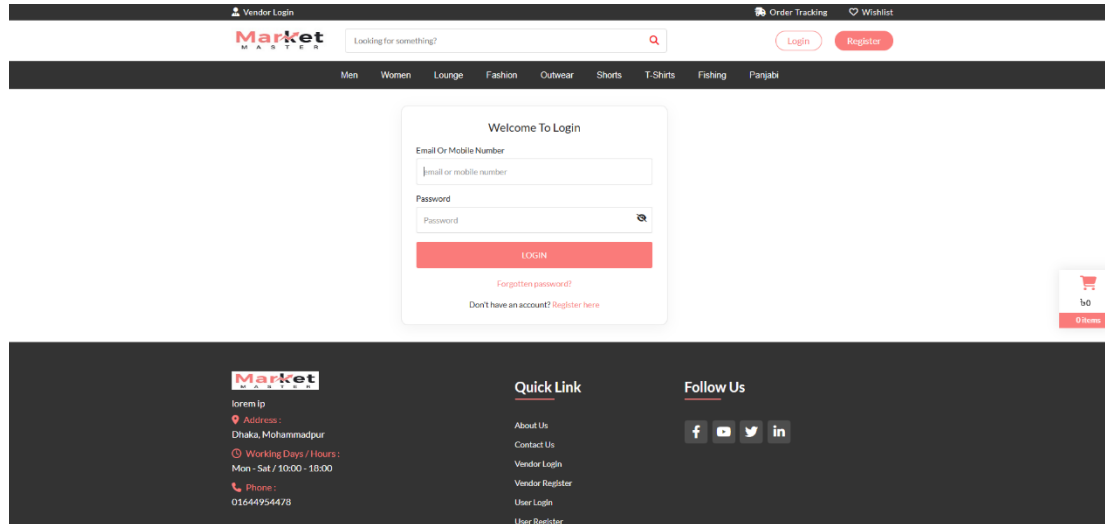


Figure: 4.2 Login page

Home page:

Market Master, your one-stop online marketplace for a wide variety of products. Explore clothing, fashion, and essentials for men, women, and more, with products from trusted vendors. Each item comes with detailed descriptions, including available sizes, colors, and prices. Easily browse through categories like outerwear, T-shirts, shorts, and more, and find the perfect fit for your needs. I can place an order by selecting quantity, preferred payment method, and providing delivery details. Enjoy seamless order tracking and view the status of purchases from new to delivered. With attractive discounts, vendor products, and a user-friendly interface, Market Master ensures a smooth and reliable shopping experience. Start shopping now!

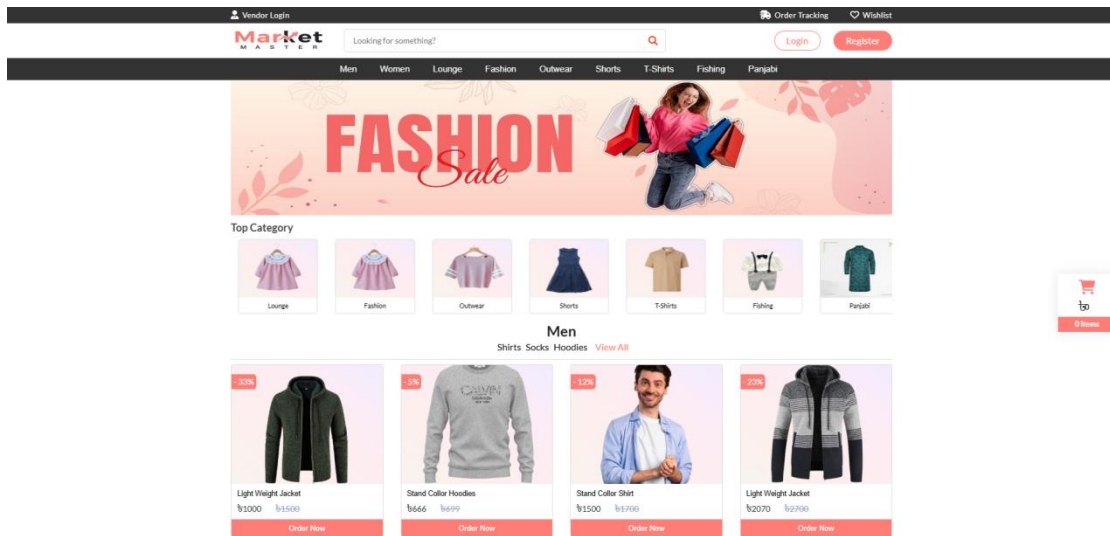


Figure: 4.3 Front page

Specification of services:

Market Master offers a comprehensive e-commerce platform that facilitates both users and vendors in buying and selling products. Users can browse a variety of clothing categories, view product details, place orders, and track their shipments with real-time updates. Payment options include cash on delivery or mobile payments. Vendors can register by providing business details, manage their product listings, and track sales through an intuitive dashboard. Earnings from sales are tracked, with the option to request withdrawals. Admins oversee the entire system, managing orders, vendors, and product listings. They ensure smooth transactions, handle customer service, and provide performance reports.

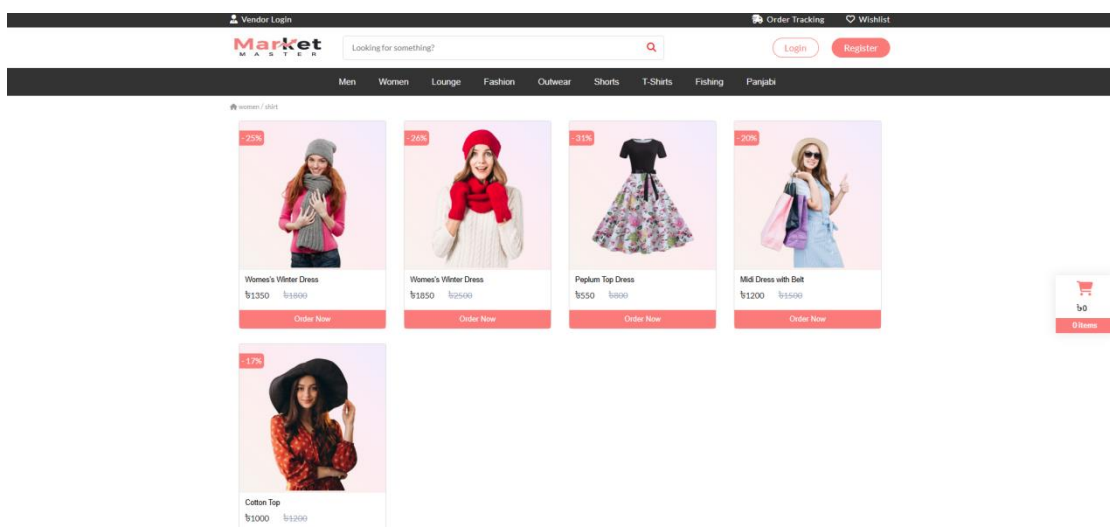


Figure: 4.4 Specification of services

User Section:

The User Section of Market Master allows users to browse and purchase a wide range of products. Upon logging in, users can explore categories like men's, women's fashion, and other essentials. Each product displays detailed information, including price, size, color, and available quantity. Users can select the desired quantity, add products to their cart, and proceed to checkout. During checkout, users fill in their personal information, delivery address, and preferred payment method (Cash on Delivery or mobile payments like Bkash). The order summary shows item details, quantity, price, and total amount. Users can track their orders using an invoice number and view status updates. The dashboard provides easy access to order history and profile settings, with options to edit personal details or log out.

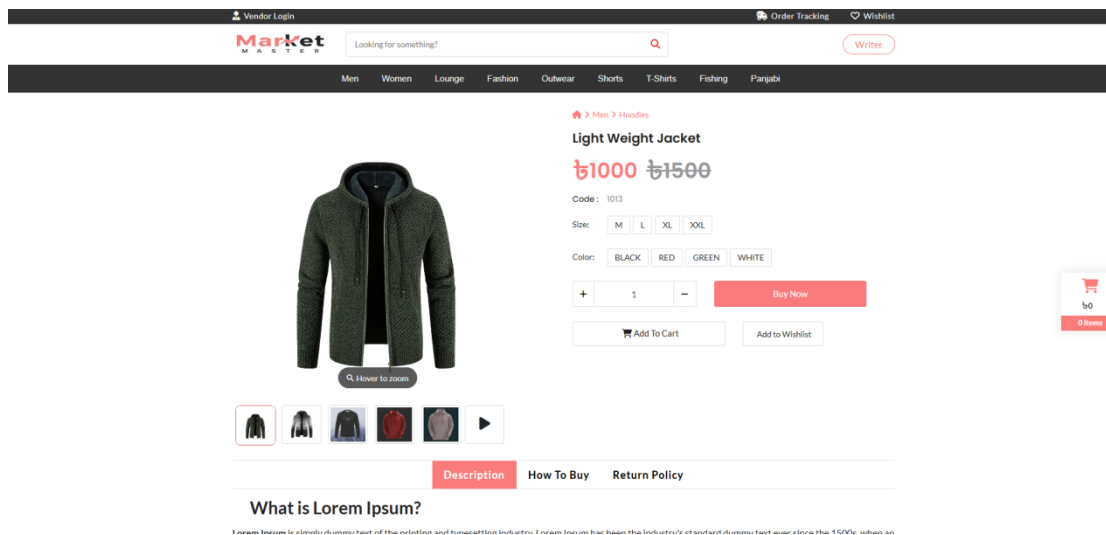


Figure: 4.5 Product Browsing and Detailed Information

Users can browse through various product categories such as men's, women's fashion, and essential items like clothes and accessories. Each product comes with detailed information, including price, size options, available colors, and quantity in stock. Users can click on any product to view its specifications, including the product code and description. This feature ensures that users can make informed purchasing decisions based on the product details, size availability, and color choices. Users can also filter products by category, price range, or brand to easily find what best suits their preferences. This level of detail makes shopping convenient and user-friendly.

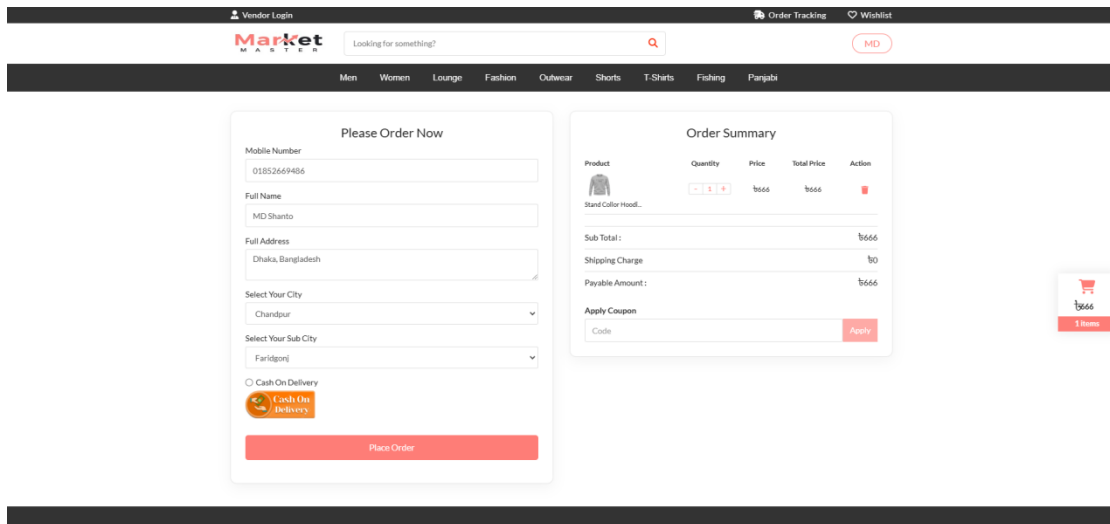


Figure: 4.6 Order Placement and Customization

Once users have selected the desired products, they can proceed to place an order. During the checkout process, users fill in essential details such as full name, mobile number, delivery address, and payment preferences. They can choose from multiple payment methods, including Cash on Delivery or mobile wallets like Bkash or Rocket. Users also have the option to apply discount coupons, providing an additional benefit. A summary of the order, including product names, quantities, and total price, is displayed for review before finalizing the purchase. This ensures that users have control over their orders and an easy path to completion.

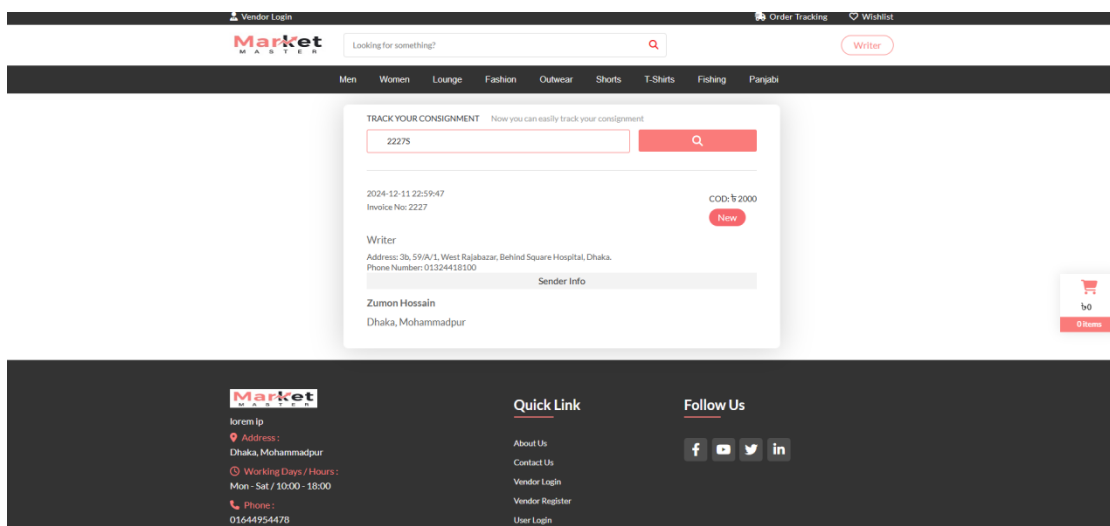


Figure 4.7: Order Tracking and Updates

After placing an order, users can track their purchases in real time. Using an invoice number, users can access a tracking system that shows the current status of their order, such as "New," "Pending," "Approved," "Shipped," "Delivered," or "Canceled." This feature provides transparency, as users can monitor their order's progress at every stage. Updates on the expected delivery date and any changes to the order status are communicated directly through the platform. By having visibility into their order's journey, users can stay informed and make timely decisions, enhancing their overall shopping experience.

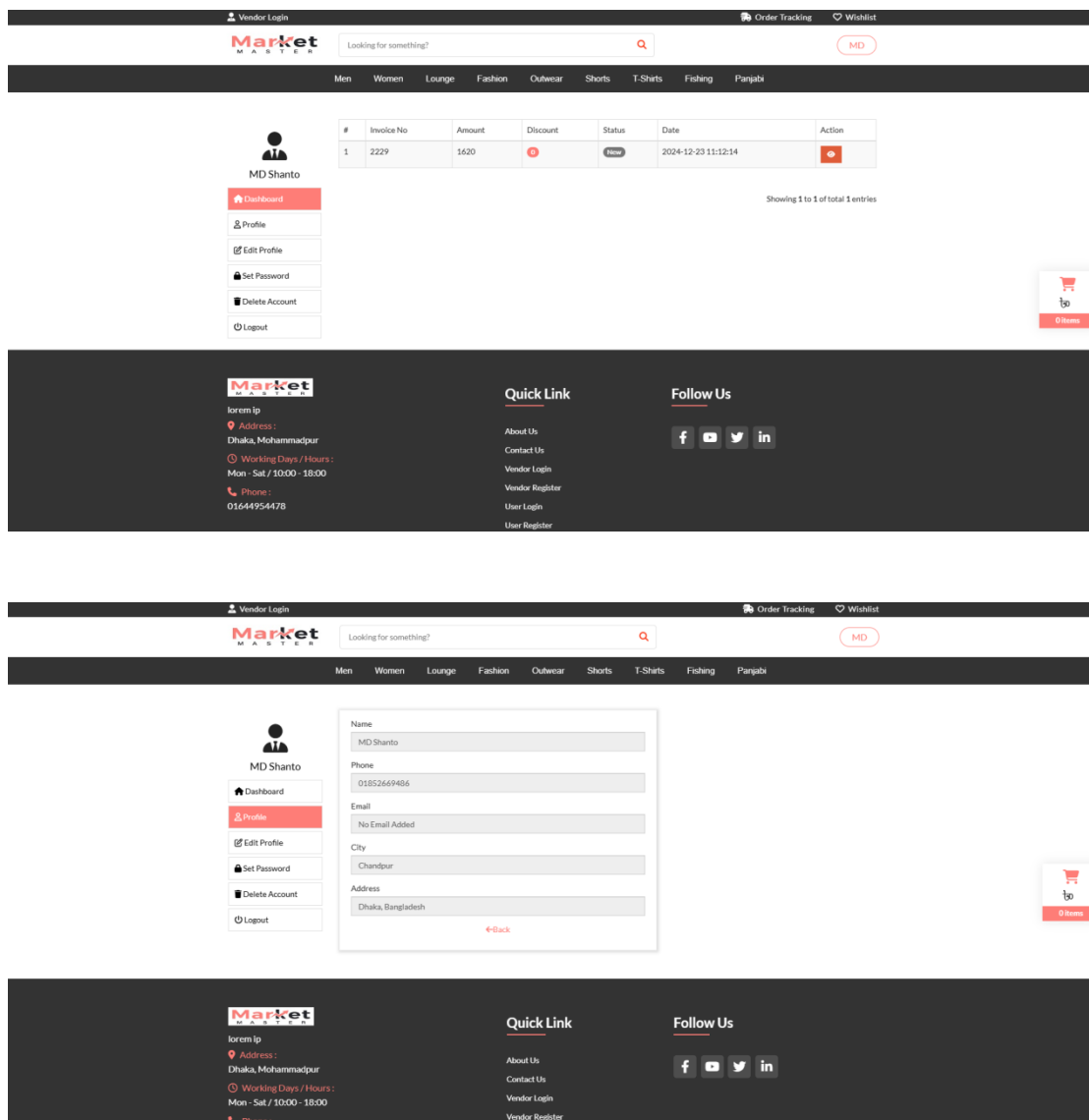


Figure 4.8: User Dashboard and Profile Management

The User Dashboard is a central hub for managing orders and personal information. Users can view their order history, including past orders, order details, and payment status. They can also access invoices for each purchase, which include important information like product

names, quantities, prices, and delivery dates. In addition to managing order information, users can edit their profiles, including updating contact details, changing their password, and adjusting their communication preferences. The dashboard also allows users to log out securely when finished. This feature ensures users have control over their account, order details, and personal information.

4.2 Back-End Design

The Admin Section of Market Master provides complete control over the platform’s operations. In the Dashboard, admin can view order statuses, including new, pending, approved, shipped, and delivered orders. Admin can manage orders by approving, canceling, or updating statuses. The Product Management feature allows admin to add, edit, or remove products, and manage categories, coupons, and discounts. Admin can monitor sales reports, manage vendor accounts, and handle customer support requests. The Account Management section enables the tracking of vendor earnings, processing payments, and managing withdrawal requests. Additionally, admin can generate detailed financial reports, manage company details, and oversee daily operations. This system ensures streamlined operations and efficient control of the platform’s business processes.

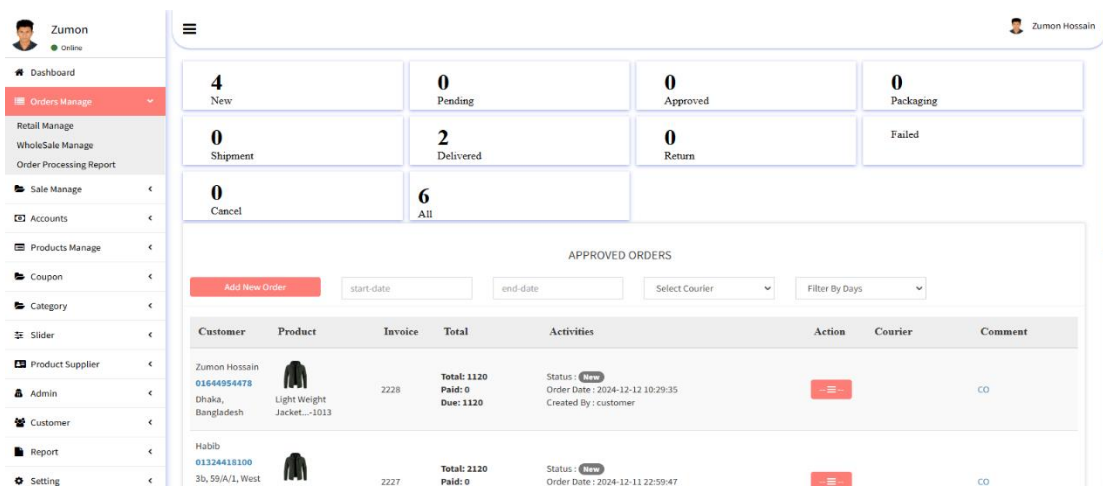


Figure 4.9: Dashboard Overview

Customer	Product	Invoice	Total	Activities	Action	Courier	Comment
Zumon Hossain 01644954478 Dhaka, Bangladesh	Light Weight Jacket...-1013	2228	Total: 1120 Paid: 0 Due: 1120	Status: New Order Date : 2024-12-12 10:29:35 Created By : customer	...	CO	
Habib 01324418100 3b, 59/A/1, West Rajabazar, Behind Square Hospital, Dhaka.	Light Weight Jacket...-1013	2227	Total: 2120 Paid: 0 Due: 2120	Status: New Order Date : 2024-12-11 22:59:47 Created By : customer	...	CO	
Market Master 01759416979 dhaka	Peplum Top Dress...-1010	hk-2225	Total: 670 Paid: 0 Due: 670	Status: New Order Date : 2024-11-30 20:26:03 Created By : customer	...	CO	
test 01000000000 dids	Peplum Top Dress...-1010	hk-2224	Total: 670 Paid: 0 Due: 670	Status: New Order Date : 2024-11-28 20:20:49 Created By : customer	...	CO	

Figure 4.10: Order Management

The Order Management feature allows the admin to oversee all orders placed on the platform. Admin can view the status of each order, including new, pending, approved, shipped, delivered, canceled, and returned. The system provides detailed order information, such as the product, quantity, user details, and total price. Admin can approve or reject orders based on availability or payment confirmation. They can also assign orders to vendors for shipment and ensure timely delivery. By tracking the progress of each order, admin ensure smooth operations, helping to maintain customer satisfaction and operational efficiency.

#	Basic Info.	Image	Price	Stock	Action
1	Cotton Top Code: 1014 Status: Approved Publish		Price : 1200 Discount : 200 Sale Price : 1000	50	...
2	Light Weight Jacket Code: 1013 Status: Approved Publish		Price : 1500 Discount : 500 Sale Price : 1000	30	...
3	Stand Collor Hoodies Code: 1012 Status: Approved Publish		Price : 699 Discount : 33 Sale Price : 666	50	...
4	Midi Dress with Belt Code: 1011 Status: Approved Publish		Price : 1500 Discount : 300 Sale Price : 1200	30	...

Figure 4.11: Product Management

Product Management gives the admin full control over product listings. Admin can add, update, or remove products, along with managing product categories, descriptions, prices, and images. This feature allows admin to ensure that product details are accurate and up-to-date, which is crucial for maintaining a smooth shopping experience. Admin can also manage

stock levels, ensuring that out-of-stock products are either hidden or marked accordingly. Furthermore, admin can oversee product variations, such as sizes, colors, or other attributes, making it easier to cater to diverse customer needs and optimize product visibility on the site.

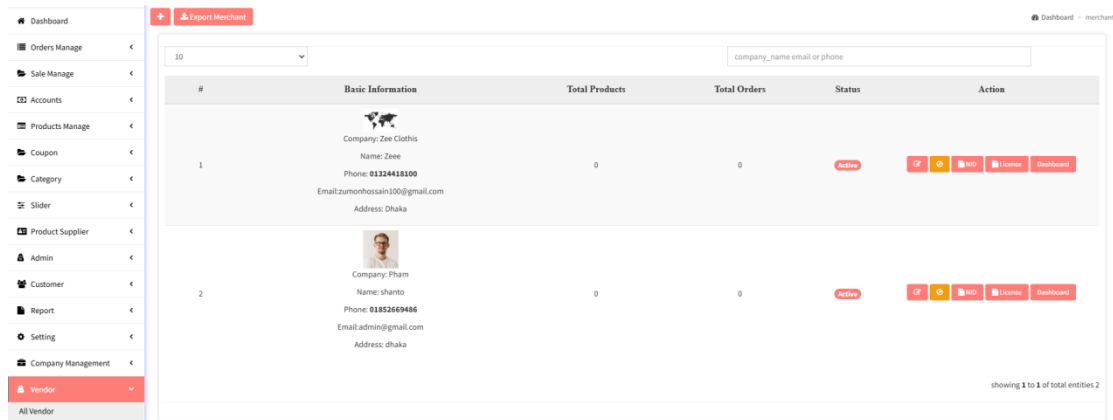


Figure 4.12: Vendor Management

Vendor Management is a crucial process for overseeing vendors' activities on the platform. It begins with vendor registration, including submission of essential details like name, trade license, and shop logo. Vendors can access their dashboard to add products, view orders, manage earnings, and request withdrawals. Admin monitor vendor activities, ensuring compliance and performance. This system streamlines product listings, order processing, and financial transactions, fostering transparency and efficiency between vendors and the platform.

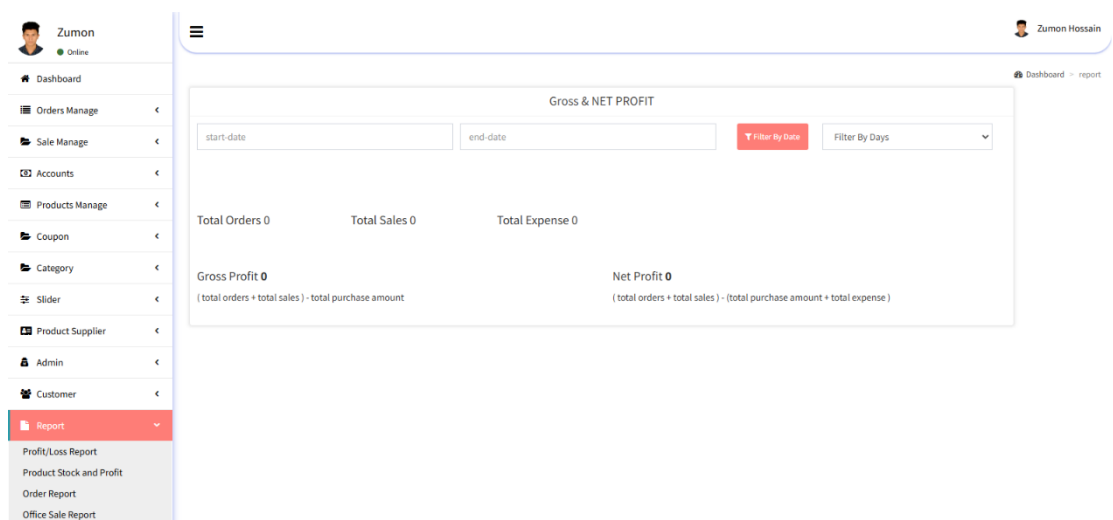


Figure 4.13: Financial & Reporting Tools

This figure represents the core functionalities of financial and reporting tools in the system. It showcases features like tracking sales, generating invoices, processing payments, and managing vendor commissions. Admin can view detailed reports on daily, weekly, and monthly sales, monitor transactions, and ensure profit distribution. Vendors can track their earnings, request withdrawals, and analyze sales performance. The tools ensure transparency, enabling efficient financial management for all users, while providing insights for strategic decision-making and operational optimization.

#	Name	Phone	City	Address
1	MD Hridoy	01752669482	Dhaka Suburb	Dhaka, Bangladesh
2	Hasan	01965683432	Cumilla	Mirpur 10
3	Hasan	01911011837	Cumilla	Mirpur 10
4	test	01515555555	Dinajpur	test
5	s m shaome	01700000000	Chauadanga	check
6	MD Shanto	01852069486	Chandpur	Dhaka, Bangladesh

Figure 4.14: Customer Management

Customer Managements illustrates the processes involved in managing customers within the system. It includes features like customer registration, profile updates, and order tracking. Admin can monitor user activities, handle queries, and generate customer-related reports. The figure outlines customer interactions such as browsing products, placing orders, and applying discounts or coupons. It also highlights admin actions like tracking customer histories, managing user feedback, and ensuring smooth communication. This system ensures an efficient, user-centric management framework for enhanced customer satisfaction.

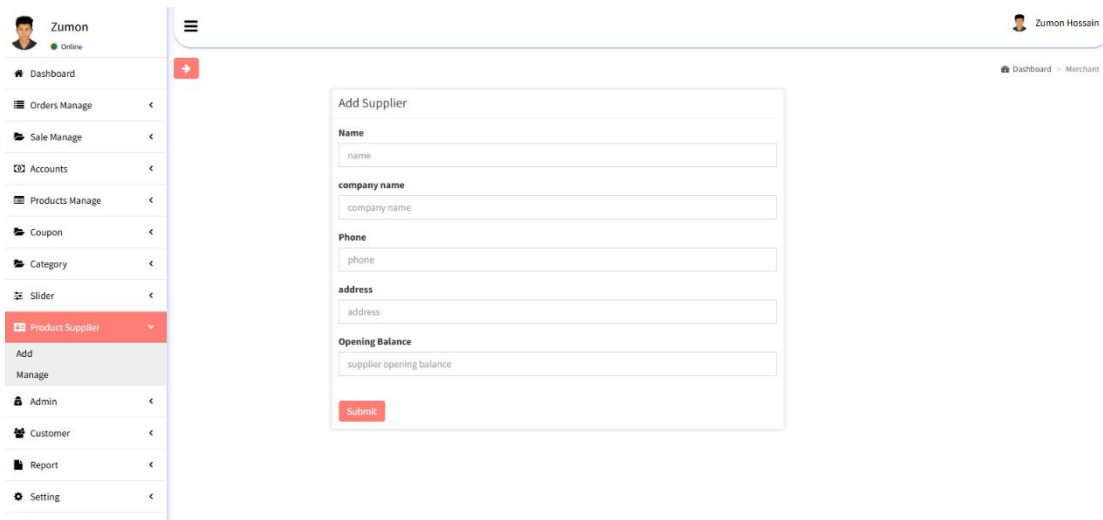


Figure 4.15: Add Product Supplier

Add Product Supplier section allows the admin to add a new product supplier to the platform. Admin can input essential details such as the supplier's company name, contact information, and product offerings. The supplier is then linked to the marketplace, enabling them to list their products for sale. The admin has control over the supplier's information and can update or delete it as needed. This feature helps expand the product range and enhance vendor management within the system.

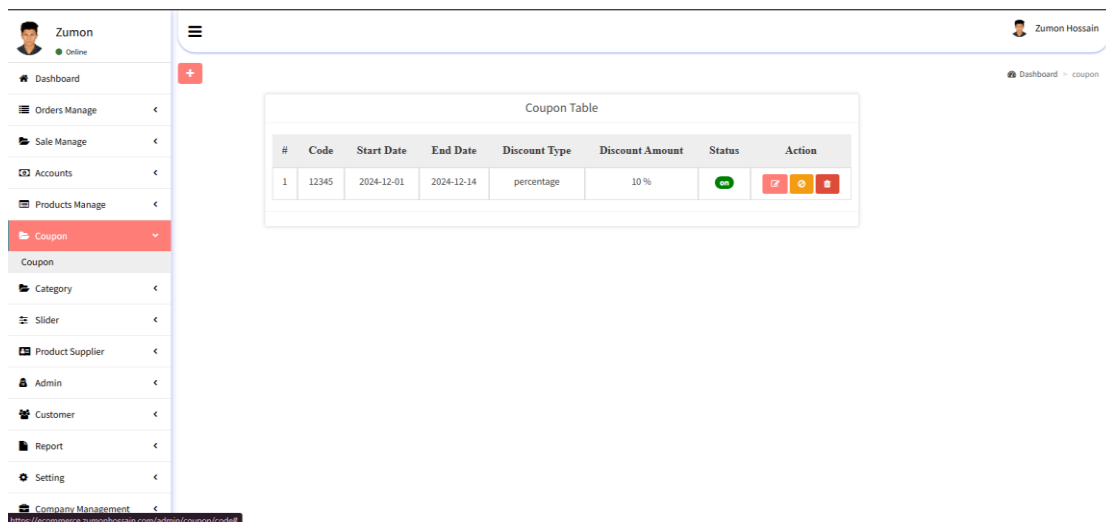


Figure 4.16: Promotions & Discounts Management

Promotions & Discounts Management section allows admin to manage promotional offers and discount coupons for users. Admin can create, edit, and delete discount codes, set

expiration dates, and define applicable product categories. Users can apply these coupons during checkout to receive discounts on their orders. The system tracks active promotions, ensuring seamless integration into the order process. This feature helps boost sales, attract customers, and encourage repeat purchases through targeted offers and incentives

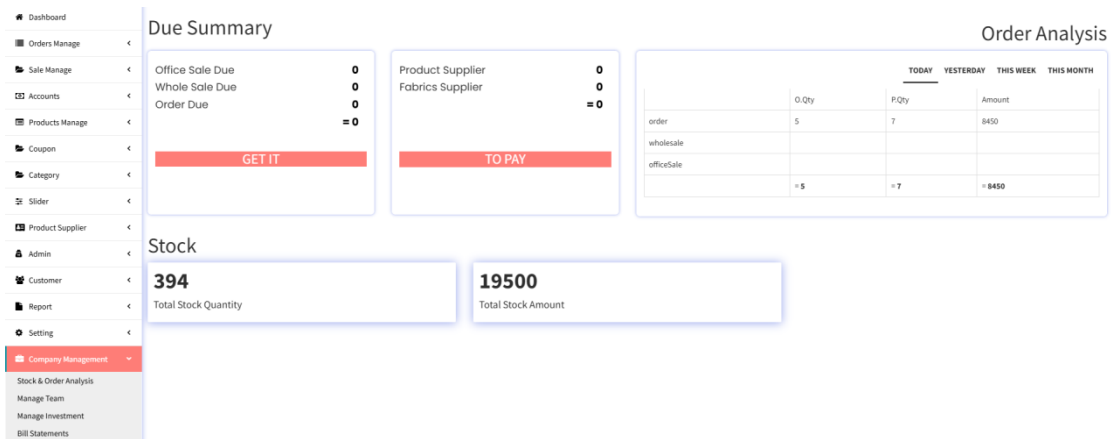


Figure 4.17: Company Management

The Company Management section allows admin to manage and oversee the vendors on the platform. Admin can add new companies as vendors, update vendor details, and view sales data for each vendor. This section facilitates the management of products sold by different vendors and ensures smooth transactions. Admin can monitor profits generated from each vendor's products and handle vendor-related inquiries. The Company Management feature helps optimize vendor relationships and streamline the selling process on the platform.

Vendor Section:

The screenshot shows the 'Vendor Register' form on the Market MASTERS website. The form includes the following fields and sections:

- Name:** Input field with 'EK.Mohammad' entered.
- Mobile Number:** Input field with '03xxx-xxxx' entered.
- Email:** Input field with 'write your email' placeholder.
- Company Name:** Input field with 'write your company_name' placeholder.
- Write Address:** Text area with 'type address details' placeholder.
- Shop Logo:** File upload button labeled 'Choose File' and 'No file chosen'.
- Your NID:** File upload button labeled 'Choose File' and 'No file chosen'.
- Tread License:** File upload button labeled 'Choose File' and 'No file chosen'.
- Password:** Input field with 'Password' placeholder.
- Confirm Password:** Input field with 'Password' placeholder.
- Register:** A prominent red button at the bottom.
- Footer:** A link that says 'You are already registered Login Here'.

Figure 4.18: Vendor Registration

The Vendor Registration section enables potential vendors to create an account on the Market Master platform. Vendors are required to provide essential details, including company name, contact information, product categories, and payment methods. Once the registration is complete, the admin reviews the vendor's application before approval. Upon approval, vendors gain access to the dashboard, where they can list products, manage inventory, track sales, and handle order fulfillment. This process ensures smooth vendor on boarding.

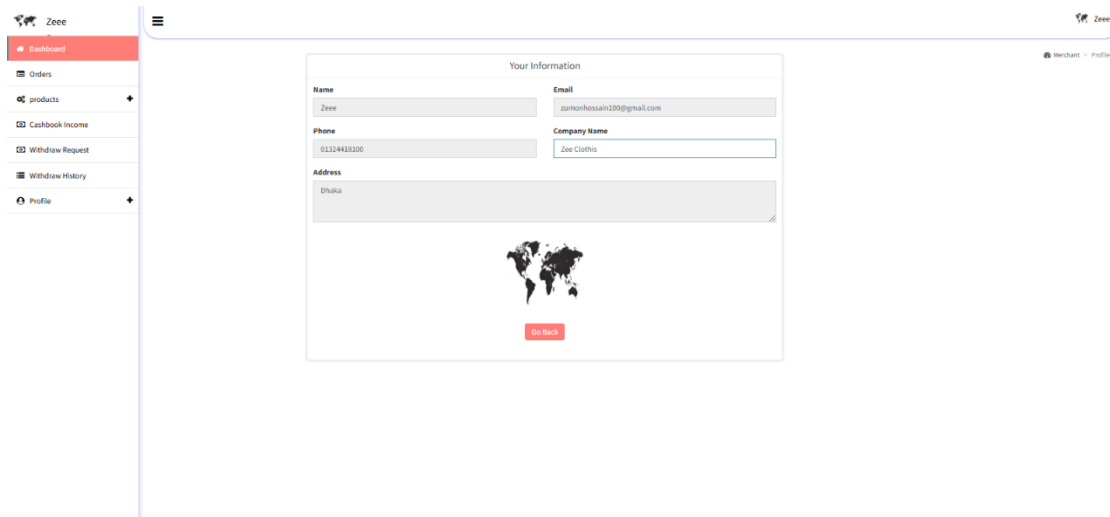


Figure 4.19: Vendor Profile

Vendor Profile showcases the vendor's account details, including personal information, contact details, and product listings. It provides a dashboard to manage their products, view sales performance, and track orders. Vendors can update their profile, manage inventory, and monitor the status of their products. The section also includes options for reviewing sales reports, setting discounts, and interacting with customers. This page is a central hub for vendors to efficiently manage their presence on the Market Master platform.

#	Name	Code	Image	Price	Discount	Sale Price	stock	status	Action
1	Midi dress	1015		1700	20%	1500	30	Approved	

Showing 1 to 1 of total 1 entries

Figure 4.20: Vendor Dashboard

The Vendor Dashboard provides an overview of key performance indicators for vendors. It displays real-time data such as product listings, order status, and sales metrics. Vendors can manage their products, update inventory, and track individual order progress (e.g., new, pending, shipped). The dashboard also allows vendors to view and process customer orders, update product details, and monitor financial transactions. It serves as a centralized hub for vendors to efficiently manage their offerings and engage with the marketplace.

The screenshot displays the 'Vendor Add Products' interface. On the left is a navigation sidebar with options like Dashboard, Orders, products, Add, Manage, Cashbook Income, Withdraw Request, and Withdraw History. The main content area is titled 'Basic Information' and contains the following fields:

- Product Name:** Text input with placeholder 'Ex: formal shirt'.
- Video URL:** Text input with a note: 'Only youtube embed link is accepted - Upload short videos to sh...'.
- Category:** Three dropdown menus for 'select category', 'select sub category', and 'select sub sub category'.
- Price setup:** Three input fields for 'price', 'discount price', and 'sale price'.
- Stock Manage:** A dropdown for 'manual stock' and a numeric input for '0'.
- Attribute(size/color):** A dropdown for 'Size' and a grid of radio buttons for sizes: M, L, XL, XXL, 5, 28, 30, 32, 40, 34, 36, 38, 42, 44.

Below this is the 'Product Images & Size Chart' section, which includes a note 'upload between 1 to 6 images (Every image can't be bigger than 1200px*1200px px)' and six image upload slots. The 'Product Details' section at the bottom features a rich text editor with a toolbar containing options like Paragraph, Bold, Italic, Link, and Unlink. A red 'Submit' button is positioned at the bottom center of the form.

Figure 4.21: Vendor Add Products

Vendor Add Products section allows vendors to easily add new products to the platform. Vendors can input essential details such as product name, description, price, available sizes, colors, and quantity. They can also upload images of the product and select relevant categories to improve product visibility. Additionally, vendors have the option to set discounts or promotions and manage stock levels. The process is streamlined to ensure quick and efficient product listing on the Market Master website.

#	Date	Order Invoice No	Amount
1	23 December 2024	2234	2400

Figure 4.22: Vendor Cashbook Income

Vendor Cashbook Income represents a comprehensive overview of the financial transactions related to the income generated by vendors on the Market Master platform. It records all incoming payments, including those from product sales, highlighting the revenue received by each vendor. This cashbook provides a detailed breakdown of income from various transactions, such as cash on delivery, mobile payments, and other payment methods. By maintaining a structured cashbook, the platform allows vendors to track their earnings, assess performance, and plan for future inventory or expansion. Additionally, the income data is organized and categorized, ensuring transparency and providing a clear financial summary for both vendors and administrators, supporting efficient financial management.

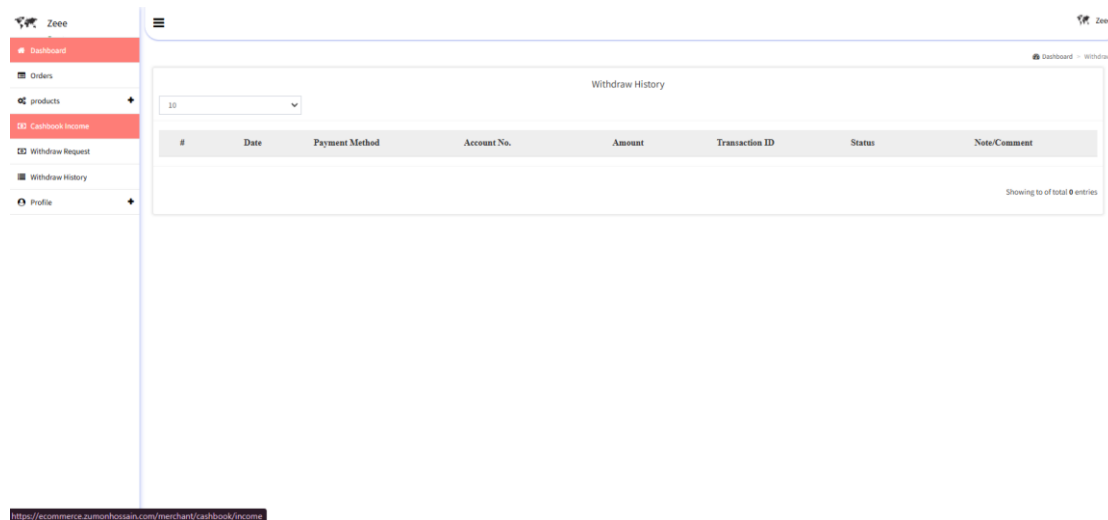


Figure 4.23: Vendor Withdraw Request and History

Vendor Withdraw Request and History figure represents the section where vendors can request withdrawals of their earnings from the platform. It displays a list of past withdrawal requests, including dates, amounts, and statuses (pending, approved, or completed). Vendors can initiate new withdrawal requests, view their request history, and track the progress of their pending withdrawals. The system ensures transparency by keeping a detailed record of all transactions for easy reference and management by both the vendor and the admin.

Database :

The screenshot displays the MySQL Enterprise Workbench interface. The main window shows a list of tables in a database. The table list includes columns for Table name, Action, Rows, Type, Collation, Size, and Overhead. A 'Create new table' dialog is open at the bottom, showing fields for Table name and Number of columns (set to 4).

Table	Action	Rows	Type	Collation	Size	Overhead
account_purposes	☆ Browse Structure Search Insert Empty Drop	19	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
admins	☆ Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
attributes	☆ Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_unicode_ci	32.0 K18	-
background_and_colors	☆ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
balances	☆ Browse Structure Search Insert Empty Drop	9	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
banners	☆ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
bill_paid_statements	☆ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
bill_per_months	☆ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
bill_statements	☆ Browse Structure Search Insert Empty Drop	12	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
categories	☆ Browse Structure Search Insert Empty Drop	8	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
cities	☆ Browse Structure Search Insert Empty Drop	67	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
comments	☆ Browse Structure Search Insert Empty Drop	13	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
companies	☆ Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
company_assets	☆ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
company_sale_paid	☆ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_general_ci	16.0 K18	-
contacts	☆ Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
coupons	☆ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	32.0 K18	-
countries	☆ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
credits	☆ Browse Structure Search Insert Empty Drop	21	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
credit_dues	☆ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
customers	☆ Browse Structure Search Insert Empty Drop	9	InnoDB	utf8mb4_general_ci	16.0 K18	-
customer_dues	☆ Browse Structure Search Insert Empty Drop	5	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
customer_due_paid	☆ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
debts	☆ Browse Structure Search Insert Empty Drop	5	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
delivery_charges	☆ Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
employees	☆ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_general_ci	16.0 K18	-
employee_salaries	☆ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
footer_settings	☆ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
general_settings	☆ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
investments	☆ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
investment_returns	☆ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
investors	☆ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
investor_profit_paid	☆ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
merchants	☆ Browse Structure Search Insert Empty Drop	3	InnoDB	utf8mb4_unicode_ci	32.0 K18	-
merchant_cashbooks	☆ Browse Structure Search Insert Empty Drop	5	InnoDB	utf8mb4_unicode_ci	80.0 K18	-
merchant_payment_transactions	☆ Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
migrations	☆ Browse Structure Search Insert Empty Drop	37	InnoDB	utf8mb4_unicode_ci	16.0 K18	-
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Figure: 4.24: My SQL

4.3 Interaction Design and User Experience (UX)

The interaction design of Market Master focuses on creating a seamless and intuitive experience for both users and admin. The platform ensures that all interactions are simple and accessible, with minimal steps for users to browse, order, and track their purchases. A clean, well-organized layout allows users to easily navigate through product categories, view

detailed product information, and make selections such as color, size, and quantity. The checkout process is streamlined, requiring only essential information, making it user-friendly and quick. For vendors, the dashboard provides a clear overview of orders, earnings, and product management tools. Each section is easily navigable, allowing vendors to manage their profiles, update product details, and track sales performance. The interaction design prioritizes ease of use, ensuring that all actions, from adding products to requesting withdrawals, can be completed with a few clicks.

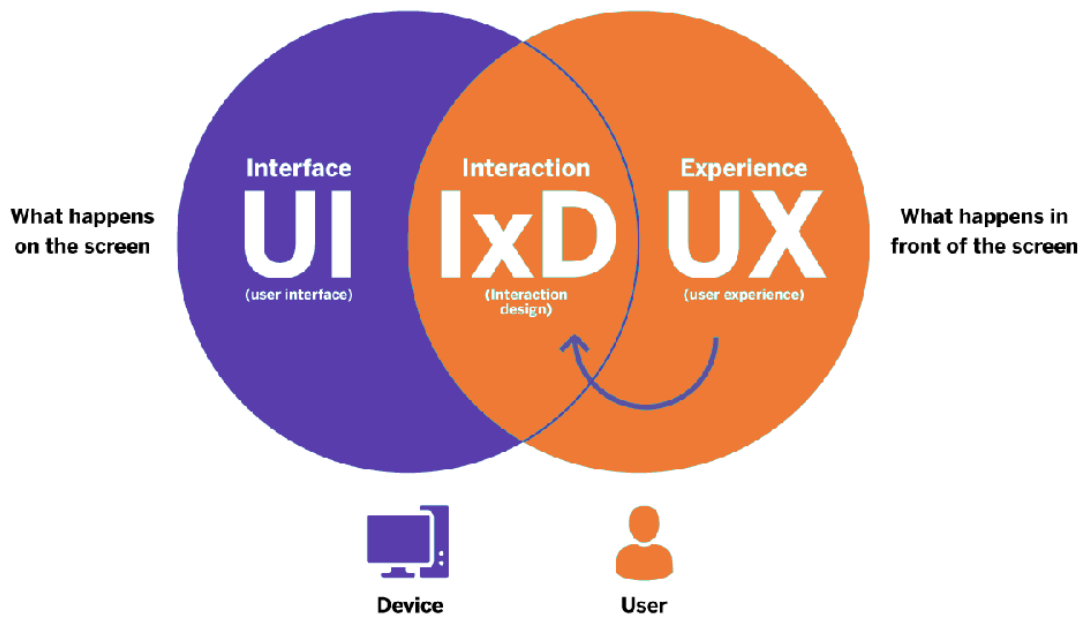


Figure: 4.25: Interaction Design and User Experience (UX)

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

The database for **Market Master** is designed to efficiently store and manage data related to users, vendors, orders, products, and transactions. I use **MySQL Database** (depending on the preference for relational databases) for this purpose, ensuring scalability and security.

Database Structure

1. **User Table:**

- Contains user details such as name, email, mobile number, address, and order history.
- Each user has a unique **user_id** to link them to their orders and transactions.

2. **Vendor Table:**

- Stores vendor information, including company name, contact details, product listings, and earnings.
- **vendor_id** links the vendor to their products, orders, and financial records.

3. **Product Table:**

- Contains details for each product, including product name, description, price, stock quantity, and vendor association.
- **product_id** ties products to vendors and their categories.

4. **Order Table:**

- Records each order placed by users, including the product, quantity, total price, shipping address, and payment method.
- **order_id** is linked to both the user and the vendor for tracking purposes.

5. **Payment and Transaction Table:**

- Tracks payment status, including payment method, amount, and transaction ID.
- **transaction_id** links each payment to an order.

The database is normalized to reduce redundancy and improve data integrity. Regular backups and security measures, including encryption and user authentication, are

implemented to protect sensitive data. This structure allows for fast querying and real-time updates, ensuring seamless transactions and order management on the platform.

5.2 Implementation of Front-end Design

The front-end design of the Market Master website is implemented using modern web technologies, ensuring an intuitive and user-friendly interface. For the layout and styling, I used HTML, CSS, and JavaScript. The website follows a clean and structured design, optimized for both desktop and mobile users. A responsive layout ensures seamless browsing across different devices, with flexible grids and media queries adapting content to various screen sizes. The home page features an eye-catching navigation bar that allows users to easily explore categories such as Men's, Women's, Fashion, and more. Dynamic elements, such as sliders and product carousels, display featured items and promotions, grabbing user attention right away. For the user interaction aspect, I implemented interactive forms for registration, order placement, and profile management. These forms guide users through each step, collecting necessary details like personal information, payment preferences, and product choices. I used JavaScript to validate user inputs and provide instant feedback, ensuring smooth form submissions. The vendor dashboard is designed to be simple and intuitive, offering quick access to important features like order management, product addition, and withdrawal requests. I used JavaScript to create dynamic tables and update product data in real-time, ensuring that vendors can manage their listings efficiently.

5.3 Testing Implementation

Testing is a crucial step to ensure the functionality, usability, and security of the "Market Master" website. The testing process will be carried out in multiple phases to identify and resolve potential issues before launching the platform.

1. **Unit Testing:** Each feature, such as user registration, product management, order placement, and payment processing, will undergo unit testing. I will test individual components to verify that each function operates as expected and performs well under various conditions.
2. **Integration Testing:** Once individual components pass unit testing, I will conduct integration tests. This phase ensures that different modules, such as the user system, admin dashboard, and vendor tools, work together seamlessly. I'll simulate real-world

scenarios like placing orders, processing payments, and updating product inventories to test the communication between the frontend and backend.

3. **User Acceptance Testing (UAT):** I will involve a group of users to validate the platform's usability. They will test the navigation, order process, profile management, and vendor system to ensure that everything works intuitively and meets their expectations.
4. **Performance Testing:** Load testing will be conducted to assess how the platform handles traffic and high user volume. I will simulate peak load scenarios to check server performance and response times.
5. **Security Testing:** I will test for vulnerabilities, such as SQL injections, cross-site scripting (XSS), and unauthorized access to sensitive data to ensure the website is secure.

This thorough testing approach will ensure the platform is stable, user-friendly, and secure.

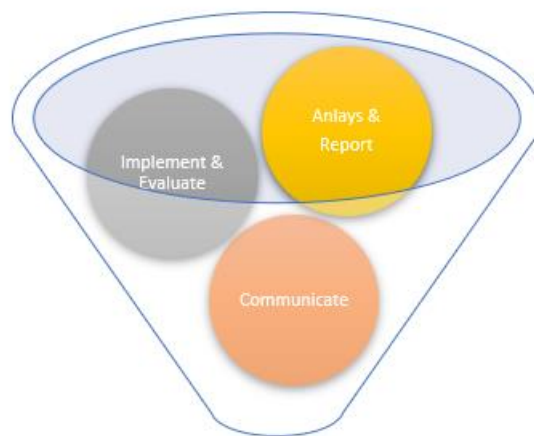


Figure: 5.1: Testing Implementation

CHAPTER 6

IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY

6.1 Impact on Society

The Market Master platform has the potential to significantly impact society by facilitating convenient access to goods and services. It empowers small businesses and individual vendors to reach a wider audience, fostering entrepreneurship and economic growth. By enabling vendors to manage their products and earnings efficiently, the platform helps create new job opportunities and supports local economies. Additionally, the user-friendly system allows consumers to access a diverse range of products, compare prices, and make informed purchasing decisions, promoting healthy competition and consumer choice. Through features like cash back and discounts, Market Master encourages smarter shopping, contributing to financial savings for users. The platform also improves supply chain efficiency and encourages innovation in e-commerce. Ultimately, Market Master can drive economic development, enhance consumer experiences, and contribute to a more interconnected, digital society.

6.2 Impact on Environment

The environmental impact of the "Market Master" platform is primarily influenced by the logistics and operations of e-commerce. While the system itself is digital, the delivery process and packaging of products contribute to carbon emissions and waste. Shipping products, especially over long distances, generates greenhouse gases, affecting air quality and climate change. Additionally, packaging materials, if not environmentally friendly, add to landfill waste. To mitigate these impacts, vendors and admin can promote eco-friendly packaging options and encourage customers to recycle. I can implement a system that prioritizes local vendors for nearby customers, reducing transportation emissions. Furthermore, providing options for carbon-neutral shipping and encouraging the use of digital receipts over paper can help minimize the environmental footprint.

6.3 Ethical Aspects

In the development and operation of the Market Master platform, ethical considerations are crucial to ensure fairness, transparency, and respect for all users, including vendors and customers. I must prioritize data protection, ensuring that personal and transaction information is securely stored and processed, in compliance with privacy laws. It is essential to maintain transparency in vendor transactions, offering clear terms and conditions for both users and vendors. Fairness in the application of policies, such as the processing of orders and payment distributions, is key to avoiding discrimination or bias. I must also consider the environmental impact of the platform, promoting sustainable practices by vendors and reducing the carbon footprint associated with delivery services. Additionally, promoting ethical business practices by ensuring that vendors follow proper licensing, avoid counterfeit goods, and offer quality products, are vital to maintaining trust within the marketplace. Ethical standards should always guide decision-making and operations.

6.4 Sustainability Plan

To ensure the long-term success and sustainability of Market Master, I will focus on three key areas: environmental responsibility, economic viability, and social impact.

- **Environmental Responsibility:** I will adopt eco-friendly practices in product packaging, promote digital over paper transactions, and encourage vendors to use sustainable materials where possible. Additionally, I will integrate a system to track and reduce the carbon footprint associated with shipping and deliveries.
- **Economic Viability:** I will continuously monitor the platform's financial health, ensuring it remains profitable while offering competitive commission rates to vendors. Regular market analysis will help adapt to changing trends and optimize revenue streams.

CHAPTER 7

CONCLUSION AND FUTURE WORK

7.1 Discussion and Conclusion

The Market Master platform provides a comprehensive and user-friendly environment for both users and vendors. By offering an easy registration process, an intuitive dashboard, and efficient order management features, I aim to create a seamless shopping experience. The platform allows users to browse products, place orders, track shipments, and manage their profiles. For vendors, the system provides tools to manage their products, monitor earnings, and request withdrawals, ensuring they have full control over their business operations. The admin panel facilitates the oversight of the entire platform, including managing orders, tracking sales, and handling payments. The integration of various payment methods, order tracking, and vendor management tools ensures smooth transactions. In conclusion, Market Master aims to bridge the gap between users and vendors, providing a reliable, scalable solution for e-commerce operations. It is designed to grow alongside the needs of users, vendors, and the business itself.

7.2 Scope for Further Developments

The development of the Market Master platform has laid a strong foundation, but there is ample scope for further enhancements. Future updates could include the integration of real-time order tracking and live chat support, allowing users and vendors to communicate instantly for queries and support. Expanding payment options to include crypto currency or other digital payment methods could also enhance accessibility and attract a broader audience. Additionally, implementing AI-powered recommendations based on user behavior and preferences would improve the shopping experience. Advanced analytics tools for vendors could provide deeper insights into sales trends, customer demographics, and inventory management, helping optimize business strategies. Mobile app development for both iOS and Android would further extend the reach of the platform.

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