“Advitiya_Bharat”

Minor Project

Submitted in partial fulfillment of the requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering

Submitted to

RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL (M. P.)

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

TECHNOCRATS INSTITUTE OF TECHNOLOGY (EXCELLENCE), BHOPAL

SESSION: 2024-25

TECHNOCRATS INSTITUTE OF TECHNOLOGY (EXCELLENCE), BHOPAL

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that the work embodies in this Minor Project entitled "**Advitiya_Bharat**" **Shreya Shristi [0191CS221192], Priya Dubey [0191CS221152], Rahul Sahu [0191CS221158], Rishabh Raj [0191CS221166]** for partial fulfillment of the requirement for the award of degree of "Bachelor of Technology in Computer Science and Engineering" discipline to "Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal (M.P.)" during the academic year 2024-25 is a record of real piece of work, carried out by her/him/them under my supervision and guidance in the "Department of Computer Science and Engineering", Technocrats Institute of Technology (Excellence), Bhopal (M. P.).

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TECHNOCRATS INSTITUTE OF TECHNOLOGY (EXCELLENCE), BHOPAL

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

DECLARATION

We, **(Shreya Shristi [0191CS221192], Priya Dubey [0191CS221152], Rahul Sahu [0191CS221158], Rishabh Raj [0191CS221166]),** students of **Bachelor of Technology** in **Department of Computer Science and Engineering** discipline, **Session: 2024-25, Technocrats Instituteof Technology (Excellence), Bhopal (M.P.),** hereby declare that the work presented in this Major Project–IIentitled "**Advitiya_Bharat**" is the outcome of our own work, is real and correct to the bestof our knowledge and this work has been carried out taking care of Engineering Ethics. The work presented does not infringe any patented work and has not been submitted to any other university or anywhere else for the award of any degree or any professional diploma.

Date:

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ABSTRACT

India is home to a vibrant and diverse community of artisans whose traditional craftsmanship reflects the rich cultural heritage of the nation. However, due to limited market access, lack of digital literacy, and dependency on intermediaries, many artisans face economic hardships and are unable to reach a broader customer base. *Advitiya Bharat* presents a comprehensive solution through the development of a web-based e-commerce platform aimed at connecting Indian artisans directly with global buyers. It also provides a platform to explore the diverse culture and tradition of India.

The platform leverages modern web technologies such as HTML5, CSS3, JavaScript, React.js, Node.js, and MongoDB to deliver a responsive and user-friendly interface. It allows artisans to create profiles, upload products, and manage sales independently. Integration with secure payment gateways ensures trustworthy transactions, while role-based access and authentication provide a safe environment for both artisans and customers.

This innovative approach promotes financial inclusion by empowering artisans to set their own prices and retain profits, while contributing to the preservation of India's cultural legacy. By eliminating middlemen and introducing global reach, the project addresses both economic and social challenges faced by the artisan community.

The report also explores various testing strategies such as unit, integration, and system testing to ensure reliability. In conclusion, our project "Advitiya Bharat" serves as a bridge between tradition and technology, creating sustainable livelihoods for artisans while showcasing India's artistic excellence to the world.

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1.INTRODUCTION

1.1 Overview

Advitiya_Bharat focuses on creating a digital platform that connects Indian artisans with a global audience, aiming to promote cultural heritage and improve the economic conditions of local craftsmen. Artisans across India often struggle with limited market exposure, low profit margins due to intermediaries, and a lack of digital resources. To address these issues, the platform offers a direct artisan-to-consumer model, allowing sellers to list their handcrafted products, manage their stores, and interact with buyers without third-party interference.

The website is built using modern technologies including HTML5, CSS3, JavaScript, and React.js for the frontend, with Node.js on the backend. MongoDB is used as the primary database for flexibility in handling diverse product data. Features such as secure login, role-based access, real-time media delivery, and integrated payment gateways ensure a smooth and secure user experience.

Beyond commerce, the platform includes cultural elements—such as information about regional festivals, traditional clothing, and folk dances—to educate users and preserve India's heritage. The dual focus on economic empowerment and cultural preservation makes this project both socially impactful and commercially viable.

Testing methodologies like unit, integration, and system testing were applied to ensure robust functionality. The project concludes with several proposed enhancements, including mobile app development, AI-based product recommendations, and multilingual support to increase user reach and engagement.

In essence, the platform bridges the gap between traditional artisans and modern global markets, offering both economic opportunity and cultural recognition.

1.2 **Project Objective and Scope**

The main goal of this project is to build a digital platform that gives Indian artisans the opportunity to showcase and sell their handcrafted products directly to customers across the world. Many talented artisans in India still rely on local markets and middlemen, which limits their income and reach. This project aims to change that by giving them a simple, user-friendly online space where they can take control of their own sales, pricing, and product displays.

We wanted to create something that does more than just sell products—it also tells the story behind them. Each item reflects the tradition, culture, and heritage of the region it comes from. That's why the platform also includes cultural content such as folk dances, festivals, traditional clothing, and regional crafts. This helps buyers connect with the artisans on a deeper level and appreciate the uniqueness of what they're purchasing.

The objective is not only to increase the earnings of artisans, but also to preserve the rich and diverse culture of India by making it accessible to a global audience. By using modern technologies like React, Node.js, MongoDB, and secure payment gateways, we ensure that the platform is fast, reliable, and safe for both buyers and sellers.

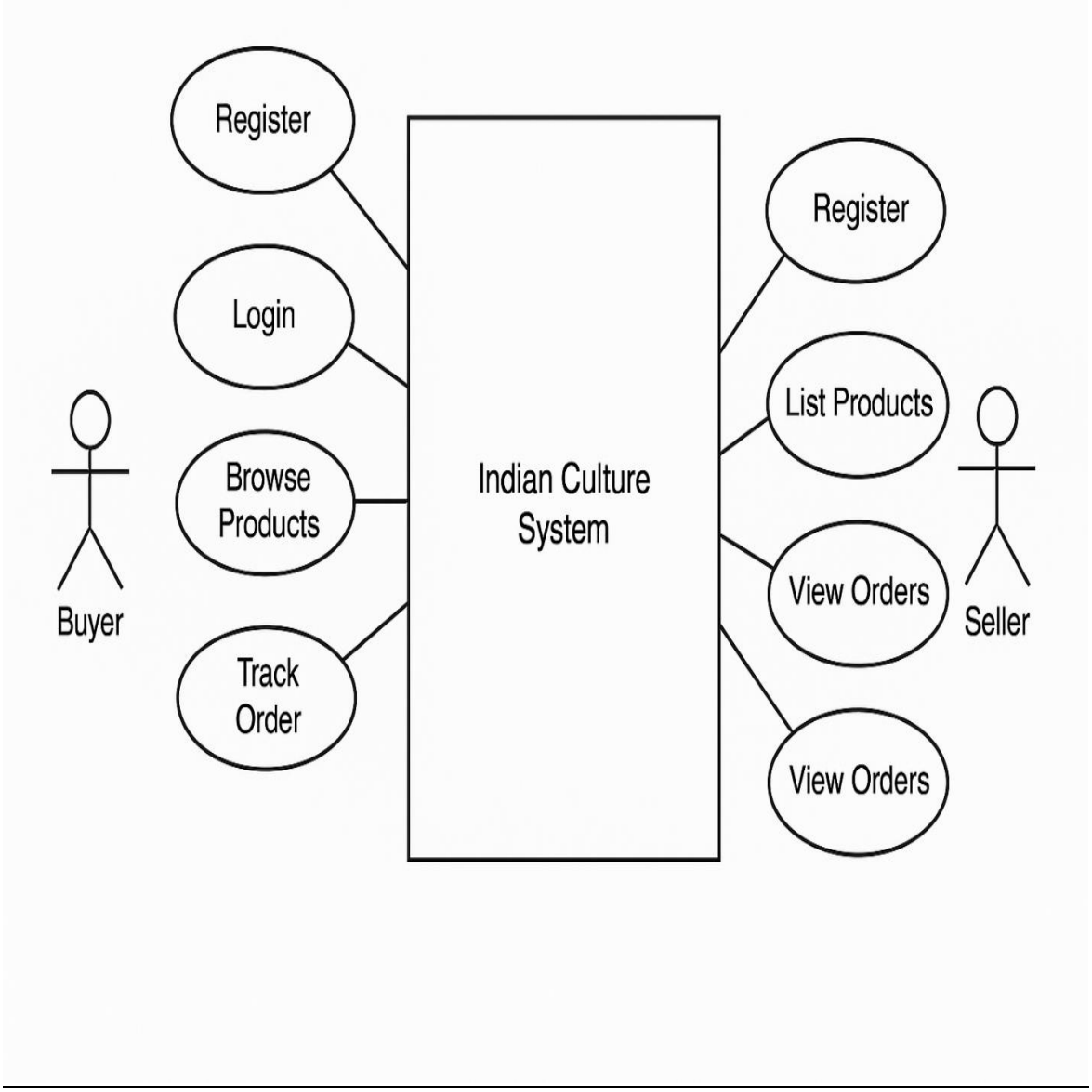
The platform allows artisans to register, upload product details, manage their sales, and receive payments through secure gateways. It supports features like user authentication, role-based access (buyer, artisan, admin), and real-time media delivery. By removing intermediaries, it ensures fair pricing and better profit margins for artisans, while providing customers with access to authentic and unique handmade items.

Beyond e-commerce, the platform also promotes cultural preservation by integrating informative content about India's traditional arts, crafts, festivals, and attire.

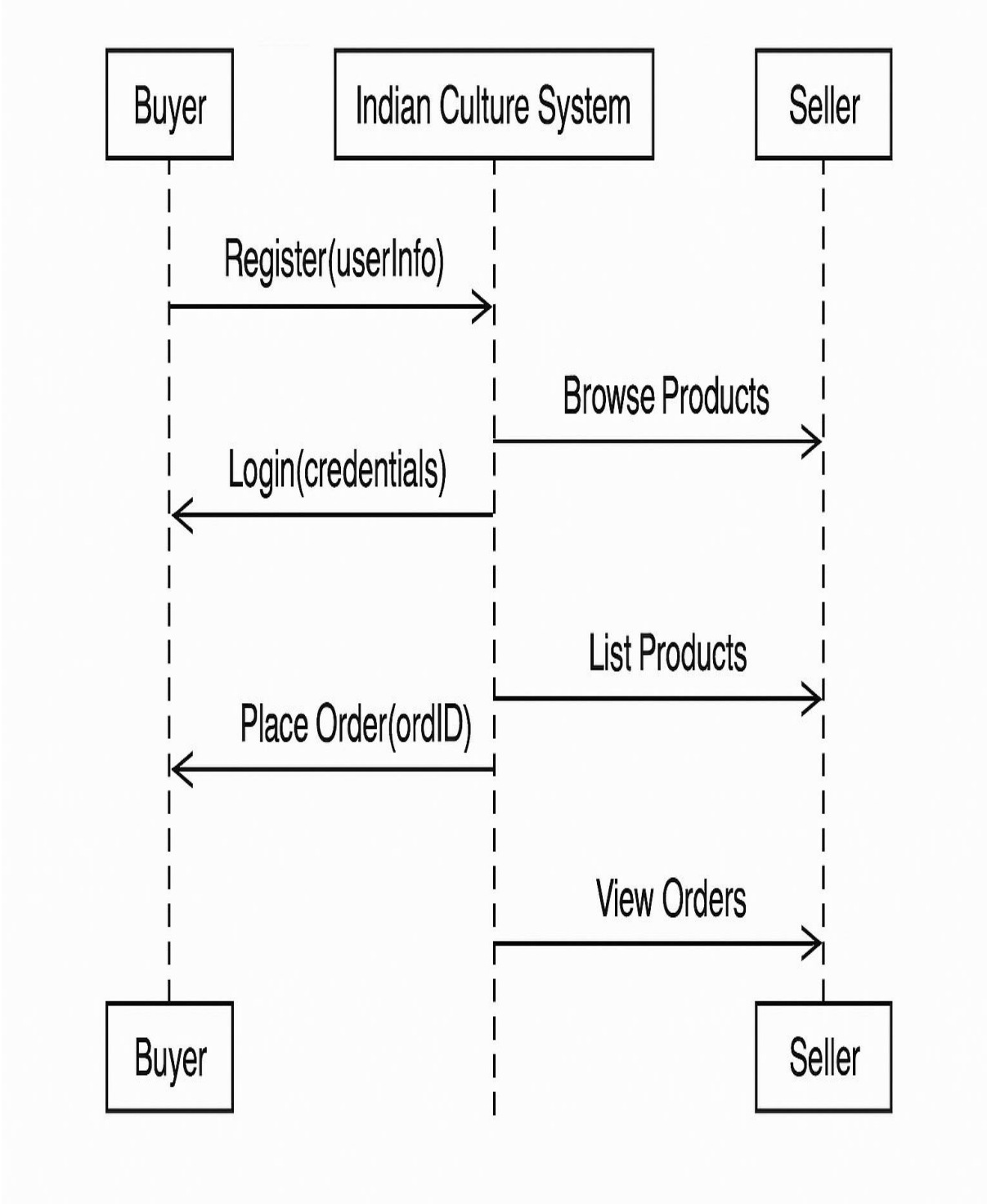
. Overall, the project aims to empower artisans economically while keeping India's cultural heritage alive and accessible in the digital age.

5. DESIGN

5.1 Use Case Diagram



5.1 Sequential Diagram



4. Technologies Used

The *"Advitiya Bharat – Indian Culture & Marketplace"* web project utilized modern web development tools and technologies for building an interactive, secure, and user-friendly platform. Below is a detailed summary of the technologies used across various layers of the application.

4.1 Frontend Technologies

- HTML5: Used to design the structural layout of web pages.
- CSS3: Applied for styling the UI, managing page layout, and ensuring responsive design.
- JavaScript (ES6):
  Enabled dynamic behaviour on the client side including form handling, interactivity, and DOM manipulation.

4.2 Backend Technologies

- Node.js:
  A JavaScript runtime environment used to handle server-side logic, process user requests, and manage file operations.
- HTTP Built-in Modules:
  Utilized instead of Express.js for handling HTTP requests and routing manually.

4.3 Database

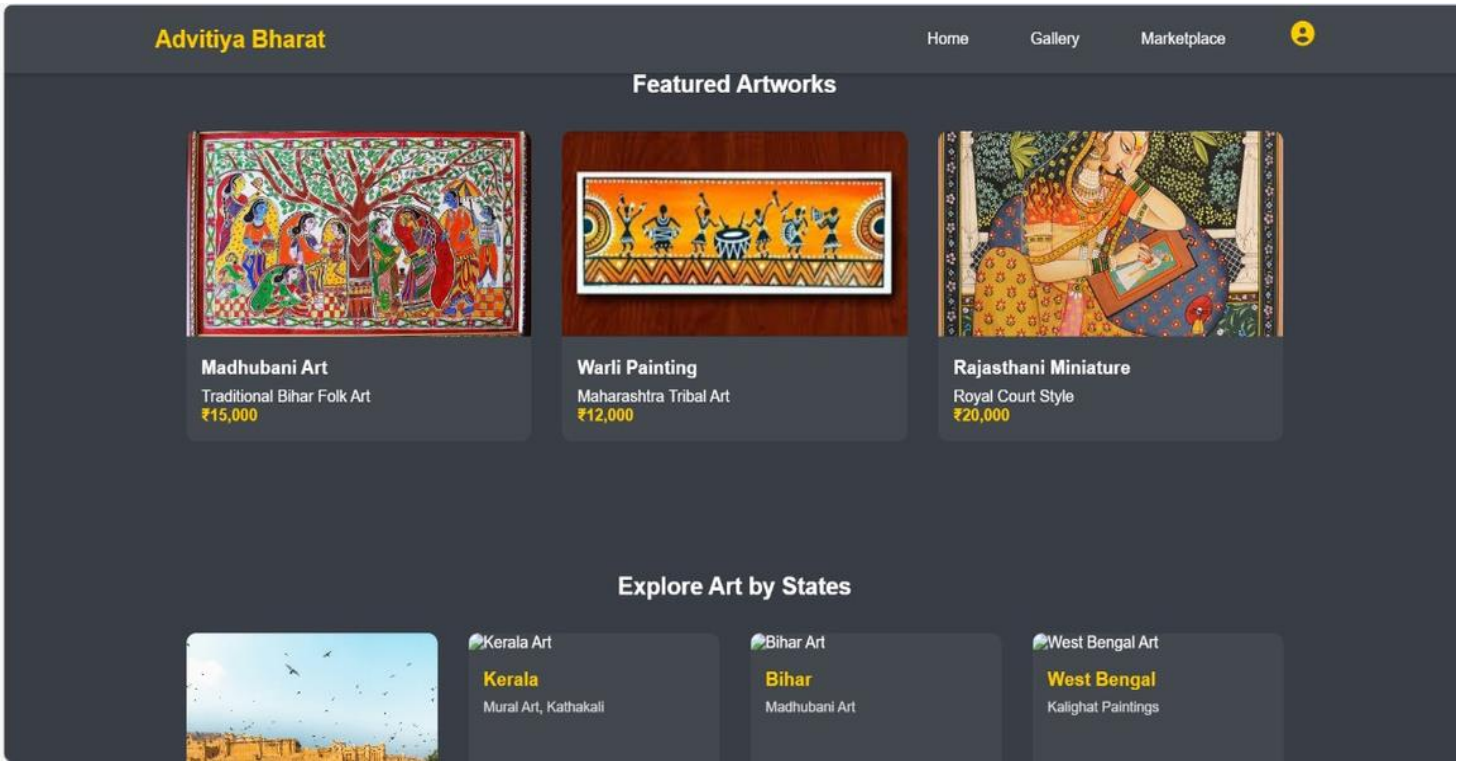
- MongoDB:
  A NoSQL document-oriented database used to store user credentials, seller/buyer information, and application data efficiently.
- Mongoose
  A MongoDB object modelling tool that helps structure and manage MongoDB operations more easily.

4.4 Development & Utility Tools

- Visual Studio Code (VS Code):
  The main source-code editor used for writing and organizing both frontend and backend code.
- MongoDB Compass: GUI client for viewing and managing the MongoDB database, collections, and documents.

5.1 SCREEN LAYOUT

5.2 SCREEN LAYOUT



5.3 SCREEN LAYOUT

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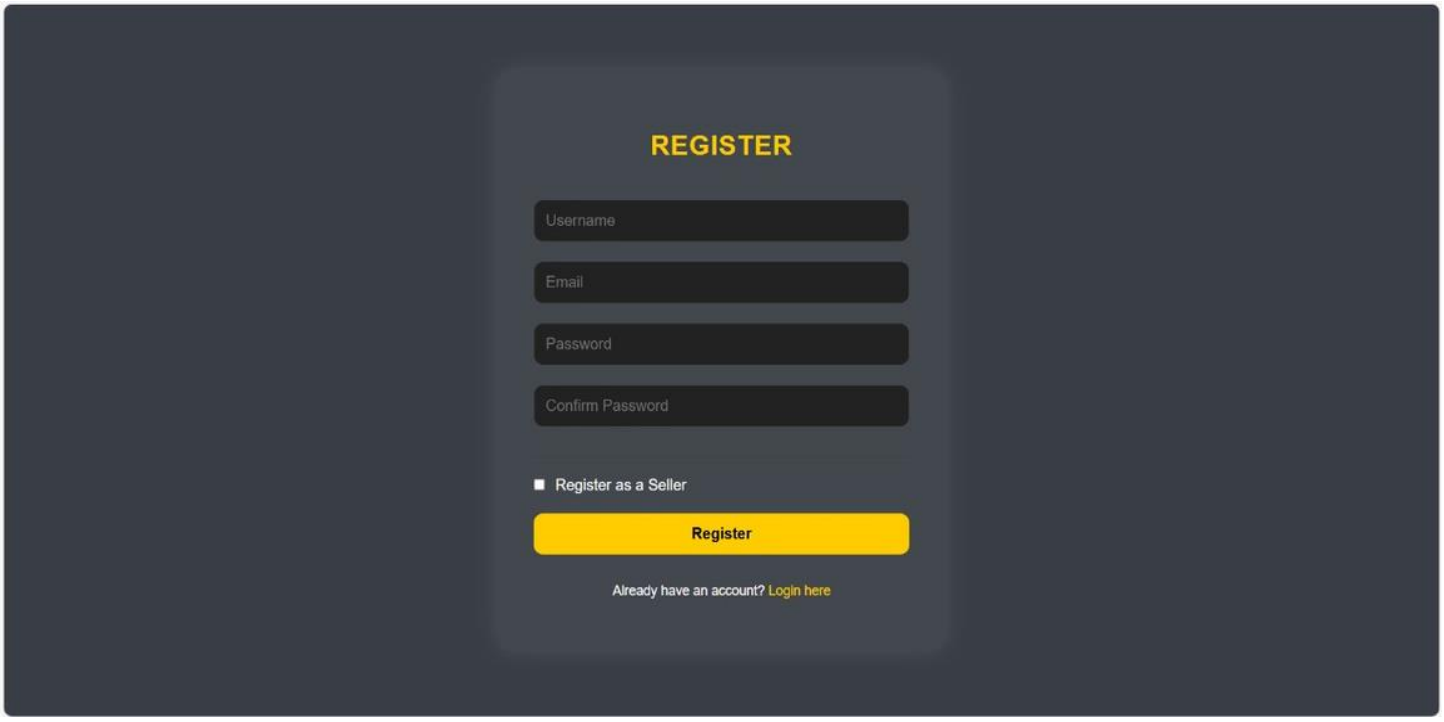
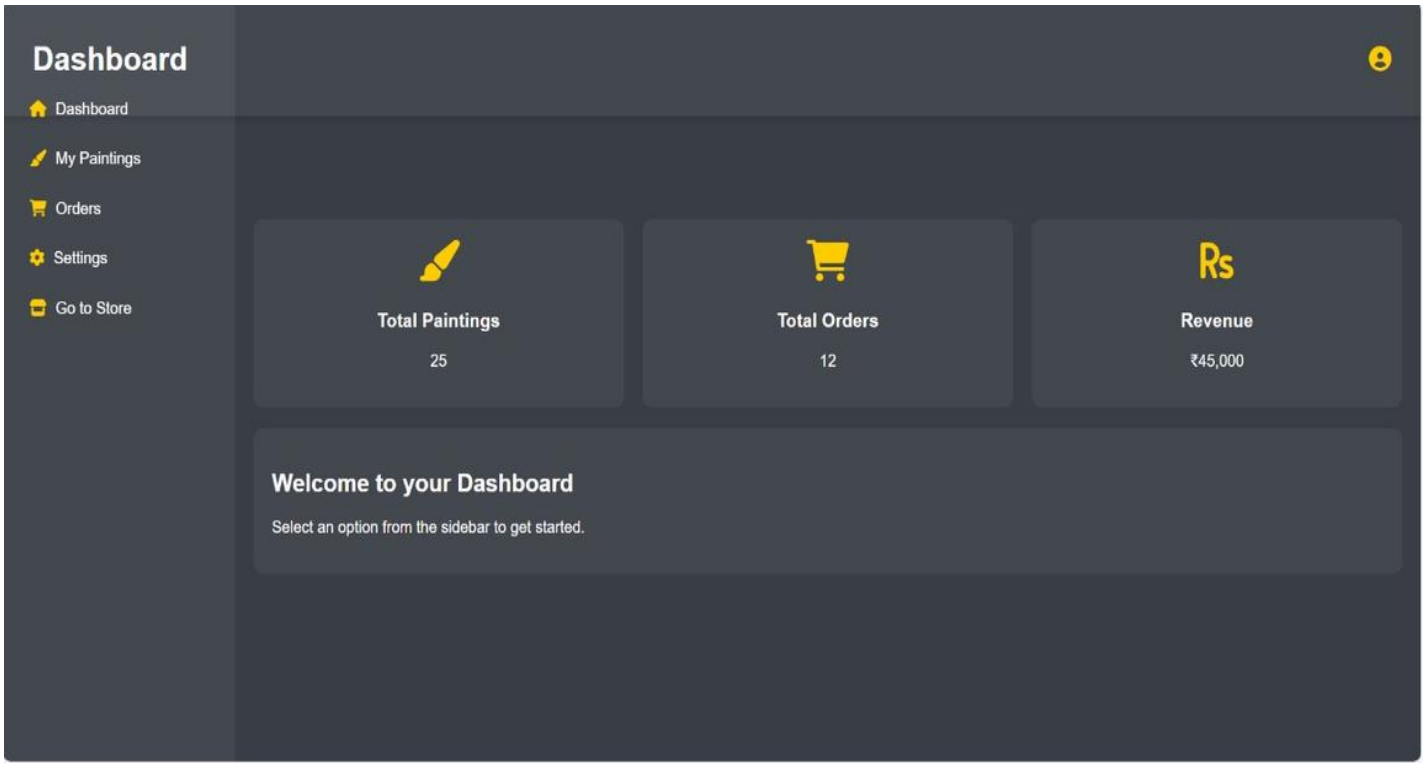


5.5 SCREEN LAYOUT



12.REFERENCES

1. Mozilla Developer Network (MDN). *HTML5, CSS3, and JavaScript Documentation*. https://developer.mozilla.org/

2. ReactJS Documentation. *A JavaScript library for building user interfaces*. https://reactjs.org/docs/getting-started.html

3. Node.js Documentation. *Node.js JavaScript runtime*. https://nodejs.org/en/docs

4. MongoDB Documentation. *NoSQL database for modern applications*. https://www.mongodb.com/docs/

5. W3Schools. *Tutorials on HTML, CSS, and JavaScript*. https://www.w3schools.com/

6. draw.io (Diagrams.net). *Online tool for UML and technical diagrams*. https://www.draw.io/

7. ChatGPT by OpenAI. *Assistance in writing, debugging, and documenting code and content.* https://chat.openai.com/