**A PROJECT REPORT
ON**

Laxmi Beverages: E-commerce Application

Submitted in partial fulfillment for Degree of

MASTER OF COMPUTER APPLICATIONS

By

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This is to certify that the project report titled:

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In partial fulfillment of the award for degree of
MASTER OF COMPUTER APPLICATIONS
From Mumbai University

And are the bonafide records of the work done by them during the Semester II of FY 2023-2024

Internal Guide	HOD
(Prof. Minaxi Gurav)	(Prof. Tejas Joshi)

ACKNOWLEDGEMENT

ABSTRACT

This abstract introduces "Laxmi Beverages", a robust e-commerce platform tailored for a local softdrink brand, developed using the MERN stack. The platform offers user-friendly interfaces, comprehensive product listings, efficient inventory management, and seamless online shopping experiences.

The primary objective is to expand the market reach of Laxmi Beverages by providing an intuitive and accessible online shopping solution. Laxmi Beverages aims to transform the way customers purchase soft drinks, enhancing customer engagement and satisfaction through a personalized shopping experience and real-time updates on product availability.

The system incorporates essential features such as user registration and login, product browsing, shopping cart functionality, and secure checkout processes. Additionally, it includes order management andpayment integration to ensure a smooth transaction flow. By enabling users to easily find and purchase theirfavorite beverages, Laxmi Beverages contributes to the growth of the local brand and meets the evolving demands of modern consumers.

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1. INTRODUCTION

1.1 Background:

The primary objective of this project is to create an online presence for Laxmi Beverages, enabling customers to browse and purchase their favorite beverages from anywhere at any time. This initiative is not merely about selling products online; it focuses on enhancing customer satisfaction by making the shopping process seamless, efficient, and enjoyable.

In today's digital era, an online presence is crucial for businesses to thrive and expand their reach. Laxmi Beverages, a local soft drink brand, recognizes this necessity and is committed to adapting to the changing market dynamics and consumer preferences by establishing a robust e-commerce platform

The platform features a comprehensive product catalogue, detailed descriptions, and an intuitive user interface, making it easy for customers to find and buy the beverages they love.

1.2 Objectives:

Website mainly used for displaying the products available and order them
 - Create an online platform for selling soft drinks.
 - Allow admin to add products
 - Manage inventory and orders efficiently.
 - Admin can add, delete, update product data
 - Admin can add, delete, update category data
 - Provide a user-friendly interface for customers.
 - Allow users to buy product

1.3 Purpose, Scope and Applicability:

Purpose:

The purpose of "Laxmi Beverages - An E-commerce Site" is to establish a strong online presence for the local soft drink brand, Laxmi Beverages. This initiative is driven by the need to adapt to the evolvingmarket landscape where digital platforms play a crucial role in reaching and engaging customers.

By creating an e-commerce platform, Laxmi Beverages aims to provide customers with easy accessto its products, enhance their shopping experience, and build a community around the brand.

Scope:

The scope of the website encompasses a wide range of functionalities. It covers inventory management to ensure accurate tracking and timely replenishment, efficient order processing to facilitate a smooth transaction process, personalized customer engagement tools for an enhanced shopping experience,and robust logistics management to guarantee timely and accurate deliveries.

The system's scalability allows it to adapt to the evolving needs of both small-scale local online orders and large, established virtual supermarket chains.

Applicability:

Customers can explore a variety of soft drink options, read detailed product descriptions, and viewratings and reviews from other buyers to make informed purchasing decisions.

By establishing an online presence, Laxmi Beverages can reach a wider audience beyond local physical stores, potentially increasing sales and brand awareness. Admin have the capability to add, update,and delete products from the catalogue, ensuring that the inventory is always up-to-date with the latest offerings.

Efficient management of inventory levels helps in preventing stockouts and overstock situations, ensuring a smooth supply chain and customer satisfaction.

2. SURVEY OF TECHNOLOGIES

2.1 Existing System:

1.Retail store

2.Social media platforms

Limitations:

1. Limited market reach
2. Low marketing efforts
3. Limited Scalability
4. Occupies some areas only, limited expansion
5. Limited Transparency

2.2 Proposed System

The purpose of "Laxmi Beverages - An E-commerce Site" is to establish a strong online presence for the local soft drink brand, Laxmi Beverages. This initiative is driven by the need to adapt to the evolvingmarket landscape where digital platforms play a crucial role in reaching and engaging customers.

By moving online, Laxmi Beverages can reach a broader audience beyond the limitations of physical stores, tapping into new customer segments and geographic regions.

The platform offers a user-friendly interface, detailed product listings, and secure payment options,making it convenient for customers to browse, select, and purchase their favorite beverages from the comfort of their homes.

Advantages

- Minimal, Distraction free design
- Category wise division
- Updating Systems

Laxmi Beverages-Ecommerce application

3 REQUIREMENTS AND ANALYSIS

3.1 Project Definition:

To create an application that provides a local soft drink brand an online presence so that it can increase its reach. This will also help the brand to create its market presence that will attract offline customers too.

3.2 Planning and Scheduling – Gantt Chart

Laxmi Beverages-Ecommerce application
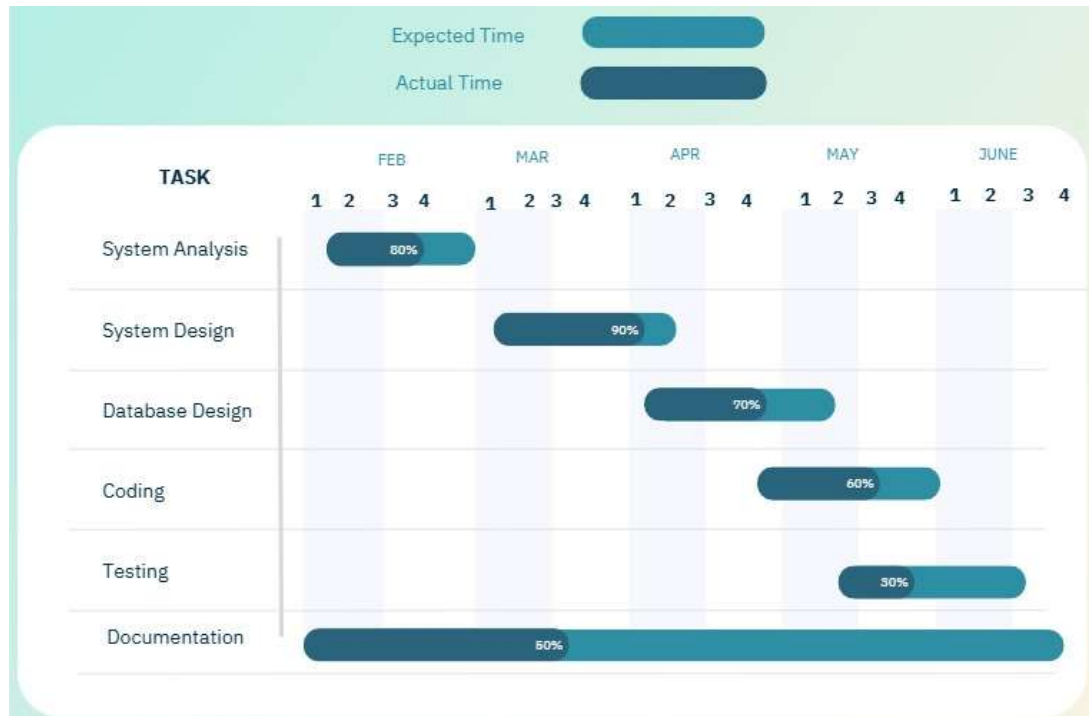
3.3 Hardware Requirements

Hardware Used:

- Only the recommended configuration (basic requirements of a computer system).

3.4 Software Requirements

MERN STACK

- **MongoDB**: NoSQL database for storing product and user information.

- **Express.js**: Backend framework for building the server-side logic.

- **React.js**: Frontend library for building the user interface.

- **Node.js**: JavaScript runtime for executing server-side code.

Tools Used:

- Report Viewer
- STAR UML Diagram Tool
- MS Word
- Visual Studio Code
- MongoDB ATLAS

3.5 Preliminary Product Description

According to the modules System is divided into two main modules. One is adding, updatingand deleting products, categories that only Admin can access. In the second module, we have features like displaying a book, adding it to cart, payment process, these features are accessible to Logged in users only. We have provided a system with admin and user dashboard also with user login, admin login and user registration process.

3.6 ER And UML Diagrams

ER Diagram

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Use Case Diagram

Laxmi Beverages-Ecommerce application
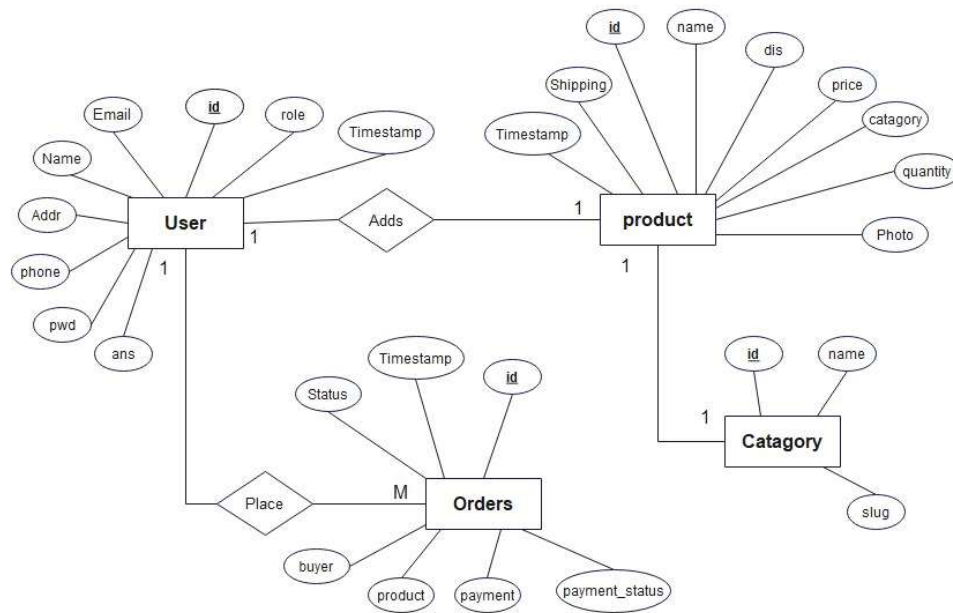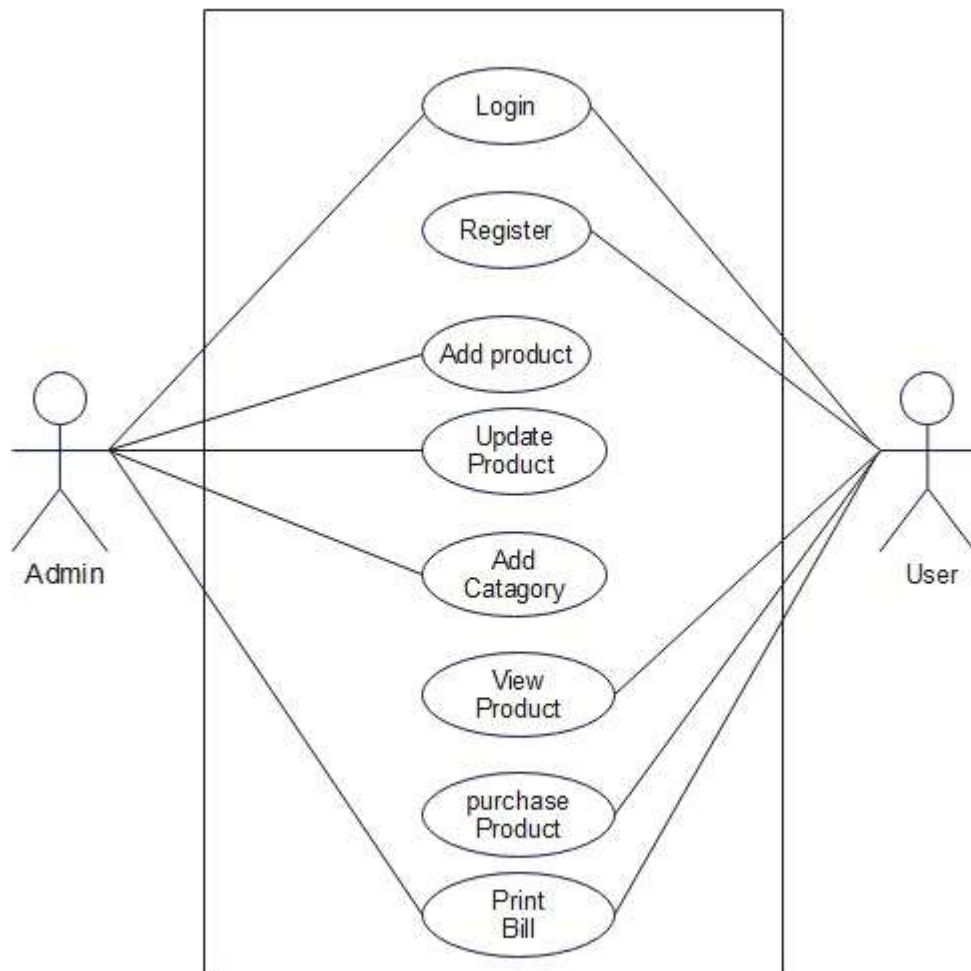
Activity Diagram

Admin Activity
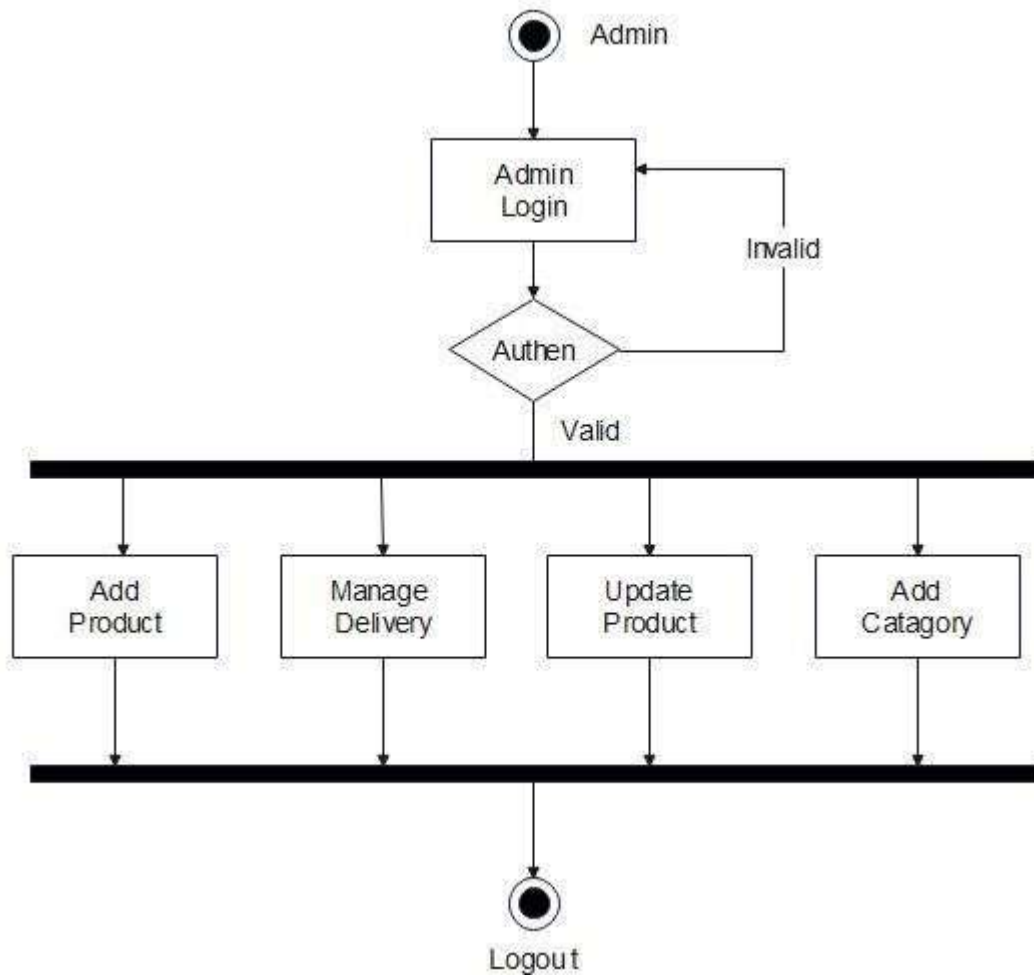
User Activity
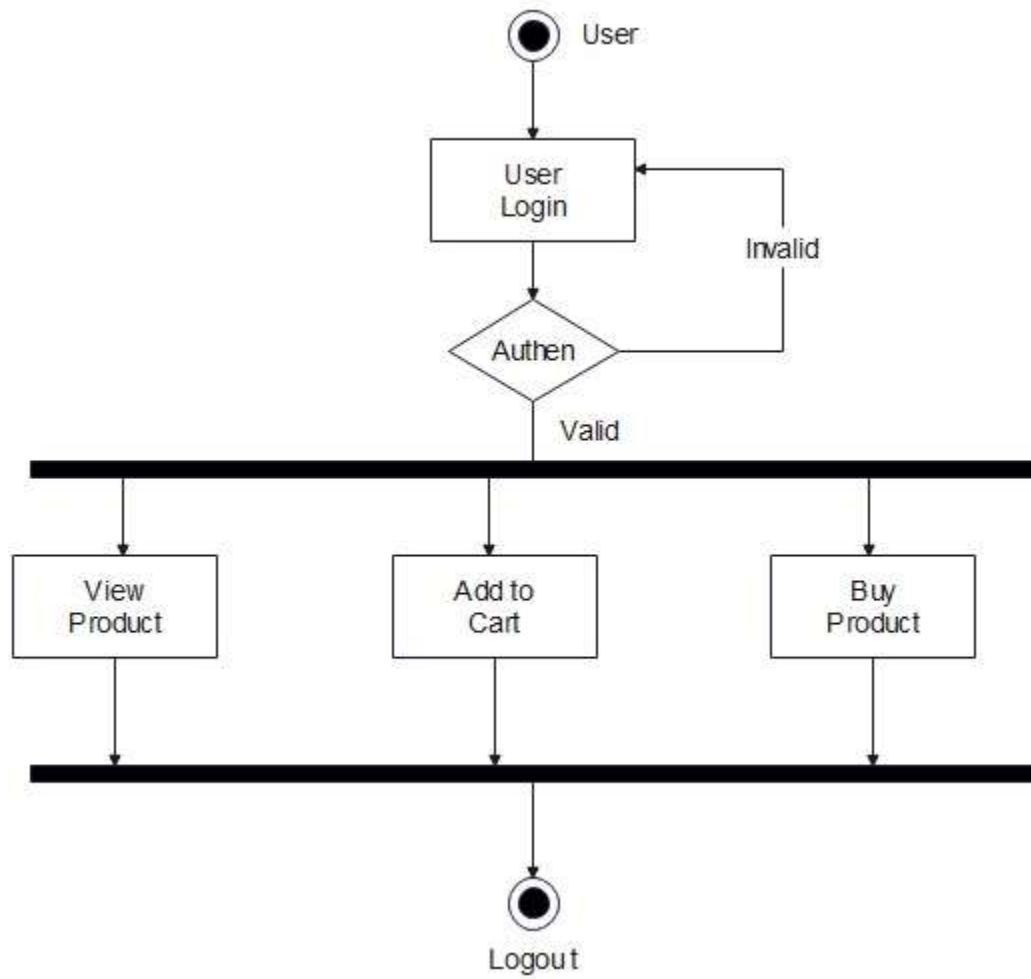
Sequence Diagram

Admin sequence

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User Sequence

Laxmi Beverages-Ecommerce application
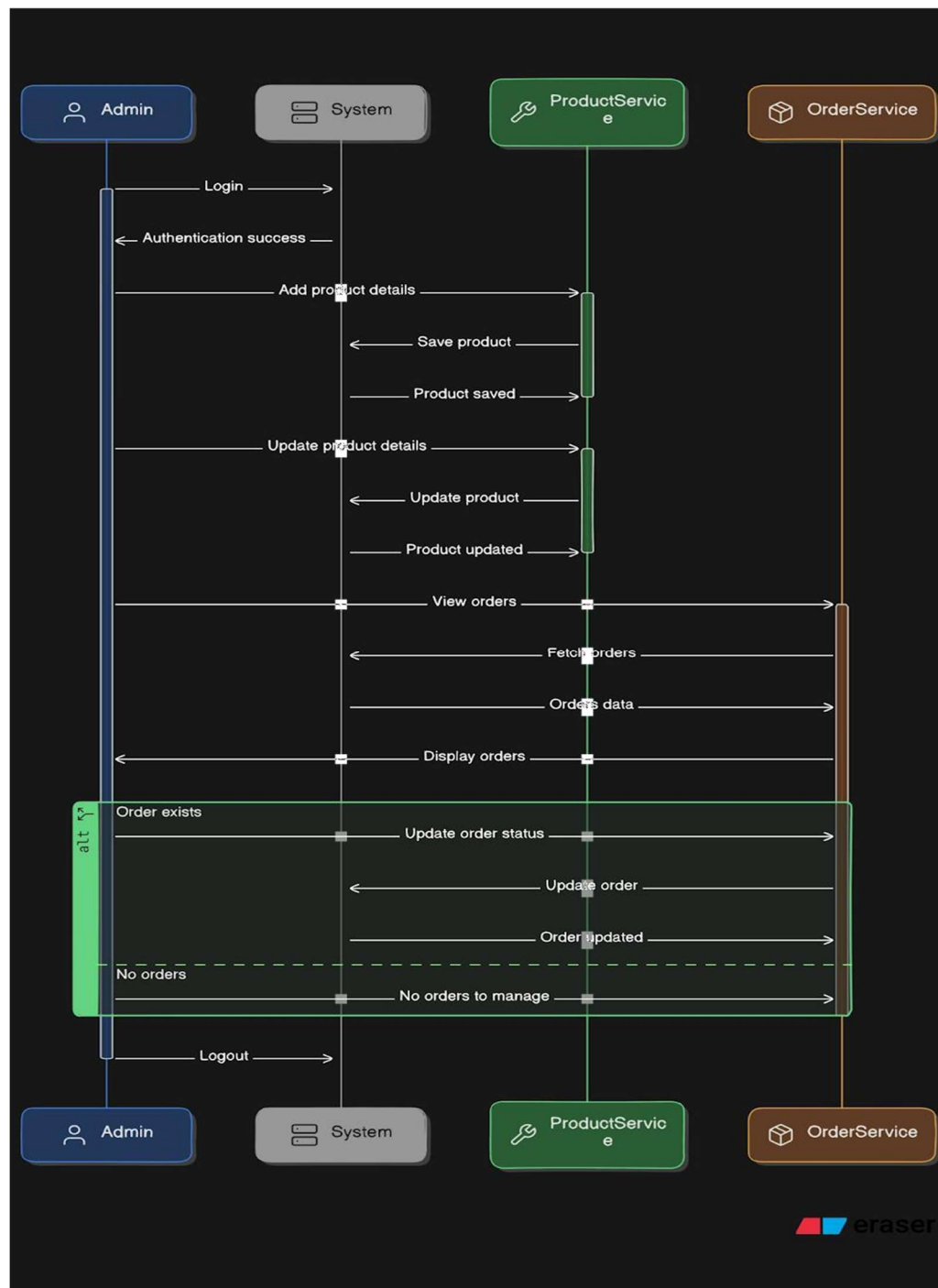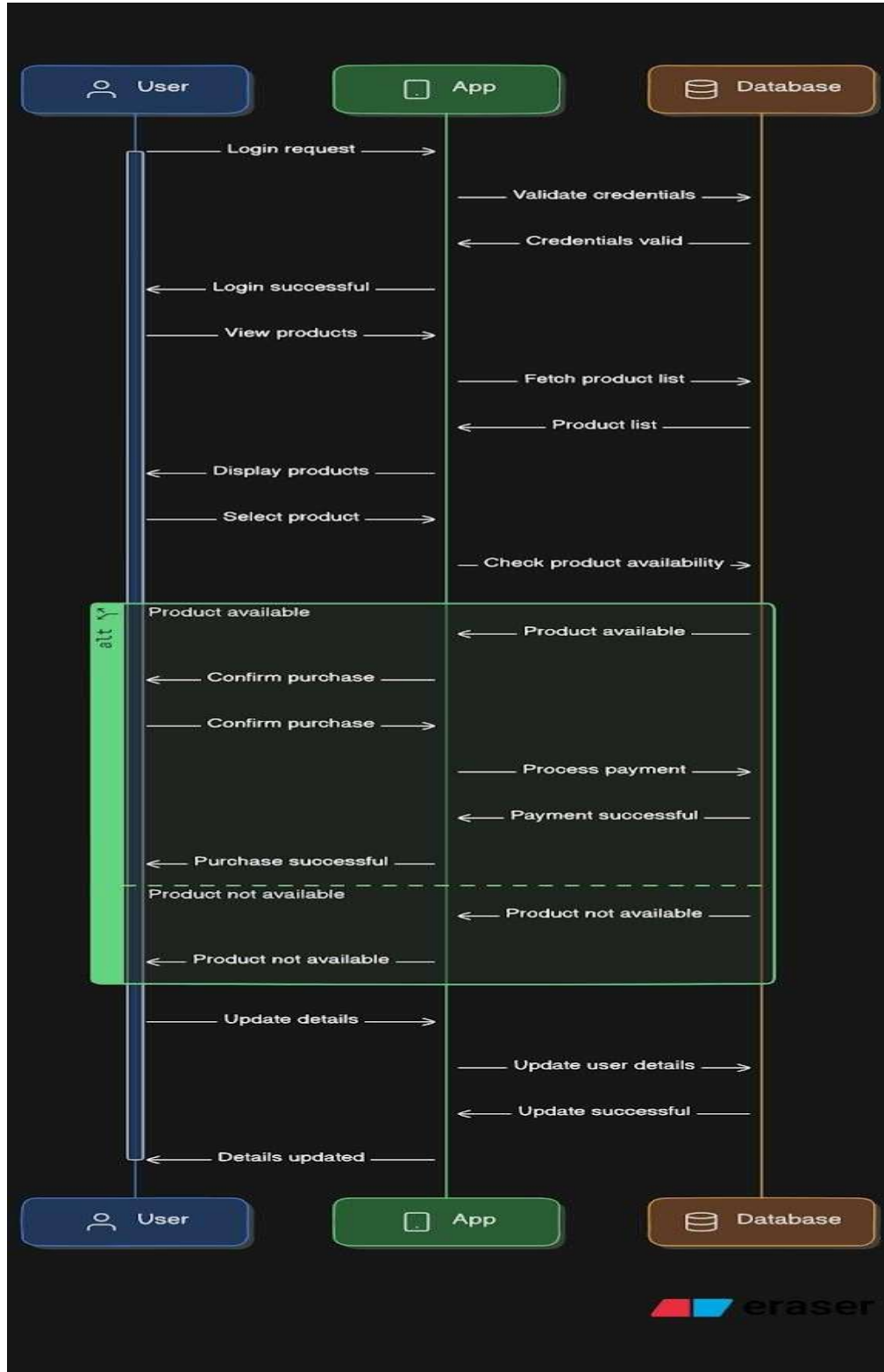
4. System Design
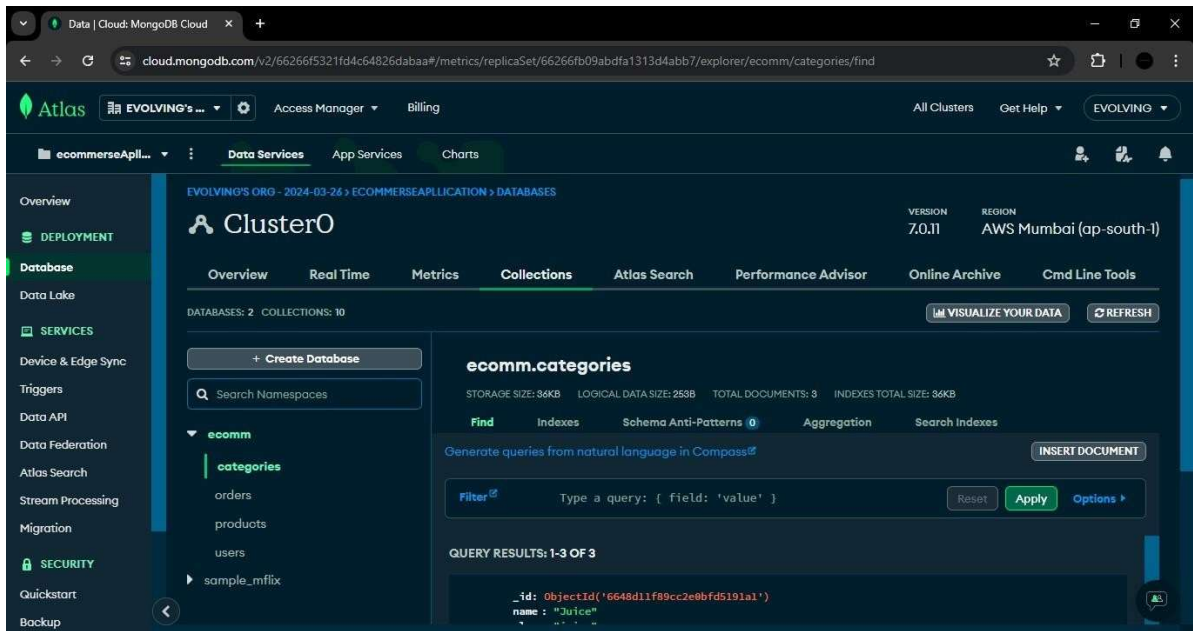
4.1 UI Design
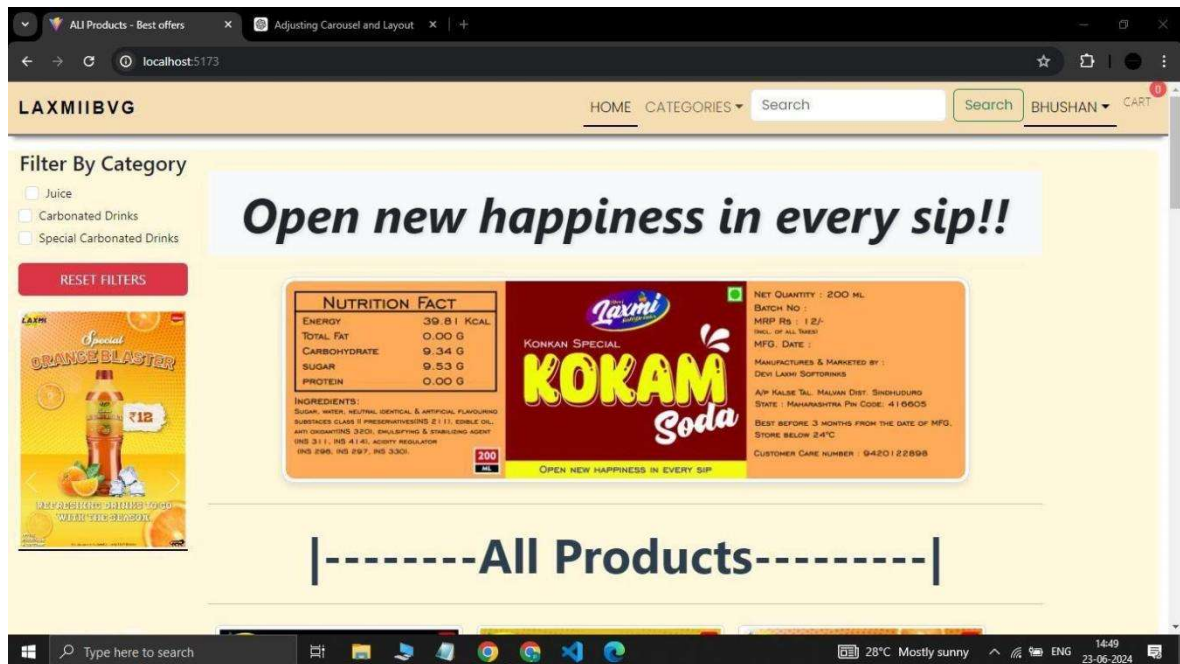
4.1.1 Homepage
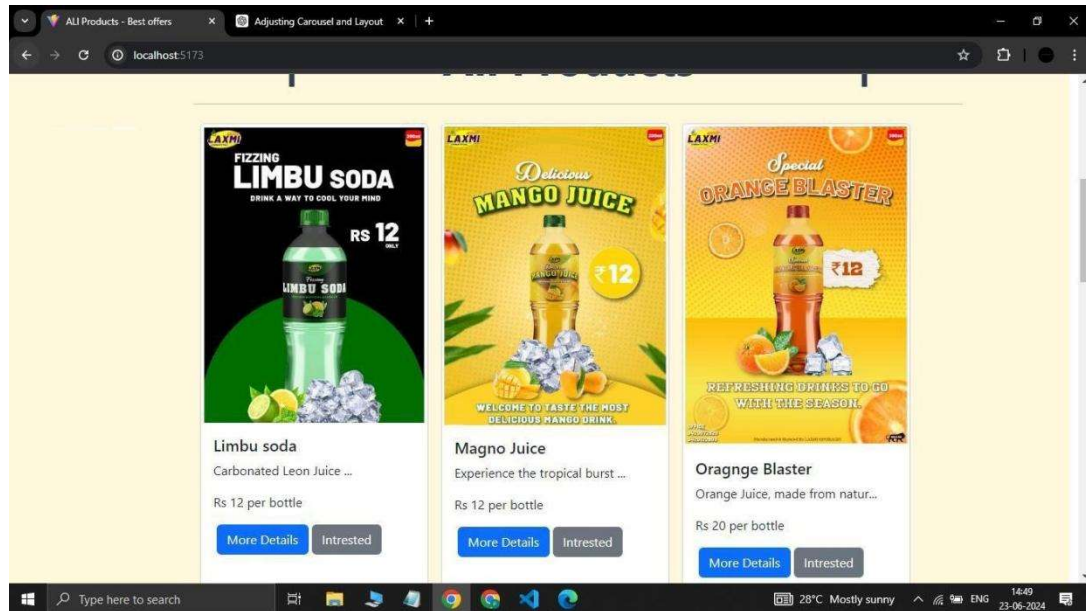
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4.1.2 Registration

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4.1.3 Cart Page

4.1.4 Product Details

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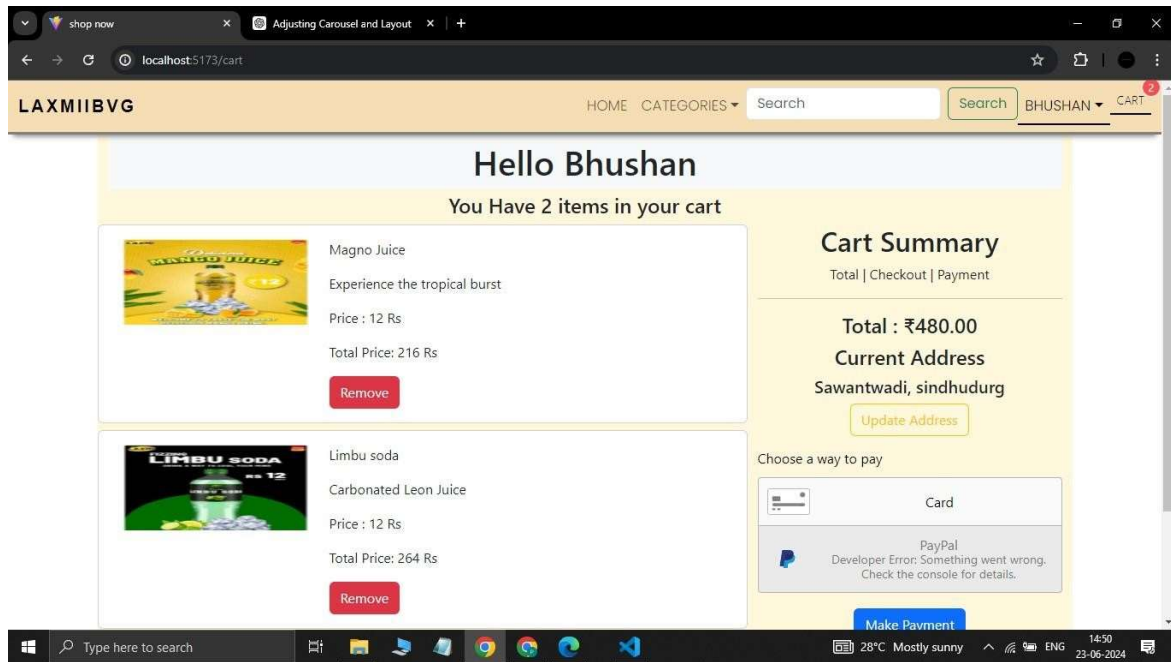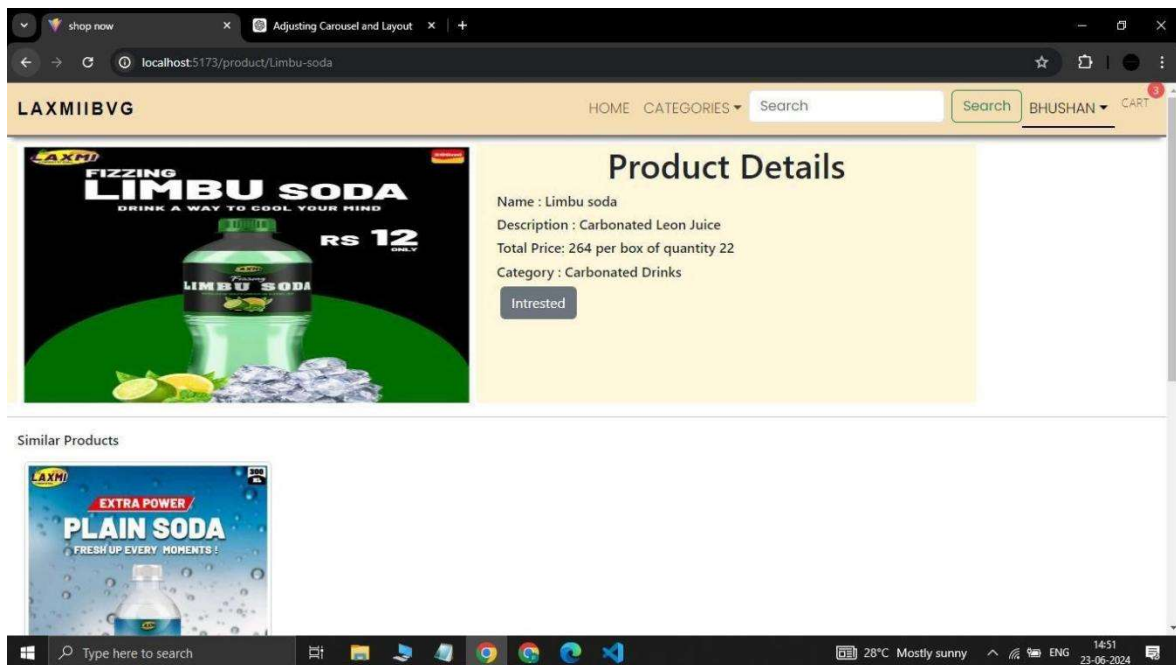
4.1.5 Admin
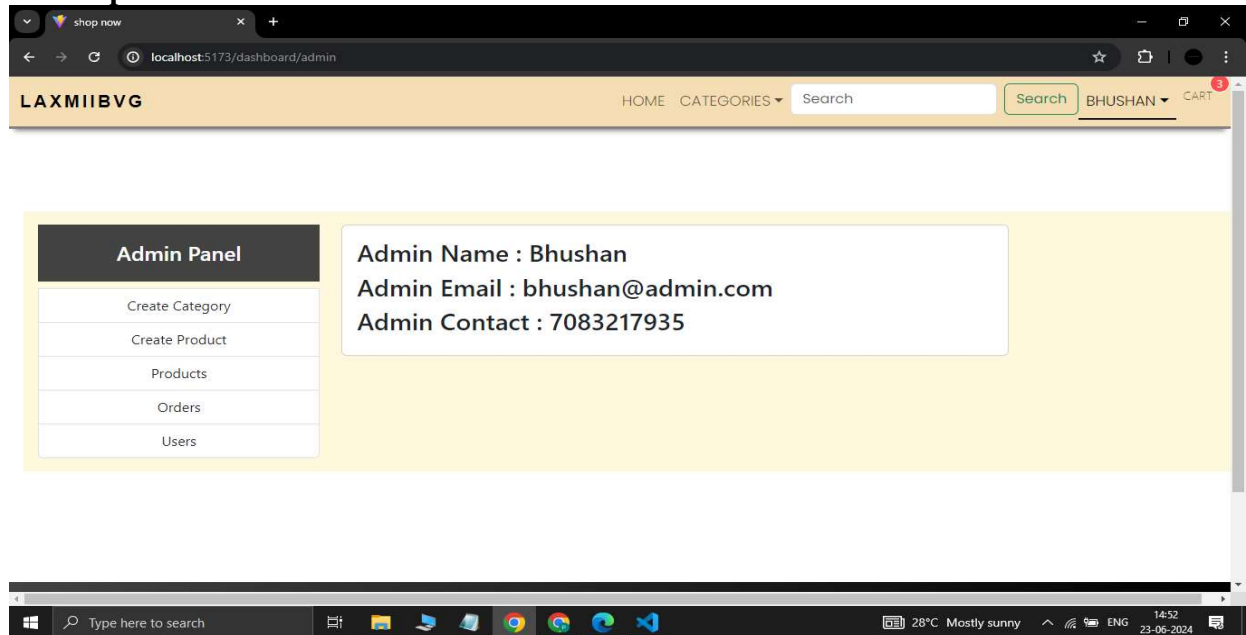
Admin panel

Add Category

Add Product

Update product

Order management

4.1.6 User

4.1.7 About Page

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4.1.8 Payment

4.2 Test Cases

4.2.1 Login

| Sr. No.	Possible Inputs	Expected result	Actual result	Result (pass/fail)
1	Valid Username and correct Password	Login Success Message and Redirect to home	Login Success Message and Redirect to home	pass
2	Valid username and incorrect password	Login Failure Message and Reload login Page	Login Failure Message and Reload loginPage	pass
3	Invalid Username and correct password	Login Failure Message and Reload login Page	Login Failure Message and Reload login Page	pass
4	Invalid Username and incorrect Password	Login Failure Message and Reload login Page	Login Failure Message and Reload login Page	pass

4.2.2 Registration

Sr. No.	Possible Inputs	Expected result	Actual result	Result (pass/fail)
1	Valid username, address and answer field.	Registration Success Message and Redirect to login	Registration Success Message and Redirect to login	pass
2	Invalid username, address and answer field.	Registration Failure Message and Reload login Page	Registration Failure Message and Reload login Page	pass
3	Invalid mobile number	Registration Failure Message and Reloading Login Page	Registration Failure and Reloading Login Page	pass

4.2.3 Forgot Password

Sr. No.	Possible Inputs	Expected result	Actual result	Result (pass/fail)
1	Enter valid email address and correct answer	Password updated successfully and redirected to login page	Password updated successfully and redirected to login page	pass
2	Entered valid email but invalid answer	Redirected to login	Redirected to login	pass
3	Enter Invalid email and valid answer	Redirected to login	Redirected to login	pass

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4.2.4 Add Products

Sr. No.	Possible Inputs	Expected result	Actual Result	Result (pass/fail)
1	Enter valid Product name, Description, quantity and price	Items entered Successfully	Items entered Successfully	pass
2	Enter Invalid product name, description, quantity and price	Error message	Error Message	pass
3	Enter product image	Items entered Successfully	Items entered Successfully	pass
4	Invalid image	Error Message	Error Message	pass

4.2.5 Update Product

Sr. No.	Possible Inputs	Expected Result	Actual Result	Result (pass/fail)
1	Enter valid data	Items entered Successfully	Items entered Successfully	pass
2	Entered Invalid data	Error message	Error message	pass
3	Update image	Items entered Successfully	Items entered Successfully	pass

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4.2.5 Cart

Sr. No.	Possible Inputs	Expected Result	Actual Result	Result (pass/fail)
1	Add Product	Items added Successfully/Failed	Items added Successfully	pass
2	Remove Product	Items removed Successfully/Failed	Items removed Successfully	pass

4.2.6 Display Product

Sr. No.	Possible Inputs	Expected Result	Actual Result	Result (pass/fail)
1	Display product	Items displayed Successfully/Failed	Successful	pass
2	Read description	Page Opened Successfully/Failed	Successful	pass
3	Add to cart	Page Opened Successfully/Failed	Successful	pass

4.2.7 Manage Orders (Admin)

Sr. No.	Possible Inputs	Expected Result	Actual Result	Result (pass/fail)
1	Display product	Items displayed Successfully/Failed	Successful	pass
2	Update status of products	Status updated passed/ Failed	Successful	pass
3	Print bill	Bill gets printed	Successful	pass

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5. Limitation and Future Enhancements

Limitations:

1] Limited Payment Integration

- The project may have basic payment gateway integration. Supporting multiple payment gateways and ensuring secure transactions could be enhanced.

2] Basic UI/UX Design

- While the UI is functional, it might lack advanced user interface designs and user experience optimizations. Professional UI/UX design improvements could significantly enhance user satisfaction.

3] Manual Inventory Management

-Inventory management might be manually handled. Automated inventory updates and notifications for low stock levels are not implemented

Future Enhancements:

1] Comprehensive Payment Integration
2] Improved UI/UX
3] Automated Inventory Management
4] Mobile Application

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