Title Page

- Project Title: ShopSavvy: E-Commerce Web App for a Local Retail Store
- Institution / Organization: IBM Summer Internship Program
- Mentor/Supervisor: Mr. Jaivik Panchal
- Submission Date: 21 July 2025

Certificate

- This is to certify that the project title ‘ShopSavvy: E-Commerce Web App for a Local Retail Store’ is an original work completed by the Priyanka Mehta as part of the Full Stack Development Internship under the guidance of Mr. Jaivik Panchal .

Acknowledgment

- I would like to express my sincere gratitude to mentor, peers, and IBM Internship Program for their support and guidance throughout the development of the shosavvy project.

Table of Contents

Abstract

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- This project is a full-stack e-commerce website for local retail.
- Developed to help local vendors expand digitally.
- Key features:
  - User authentication
  - Product browsing
  - Wishlist & cart
  - Order placement
  - Admin dashboard for product control

Objective

To create a responsive, secure, and functional online store allowing customers to browse and purchase products while enabling store admins to manage inventory effectively.

System Architecture

 Diagram: Frontend (HTML/CSS/JS) ↔ Backend (Node.js/Express) ↔ Database (MongoDB)

 Flow:

- Client sends request → Express server handles → MongoDB stores/fetches data → Server responds

Technology Stack

- **Frontend**: HTML, CSS, JavaScript

 Backend: Node.js, Express.js

 Database: MongoDB

 Tools: GitHub, VS Code, Postman, MongoDB Compass

Modules/Features

Module	Description	Technologies Used
Authentication	Login/Registration with JWT	Node.js, MongoDB
Product Browse	Show all products dynamically	HTML/CSS/JS
Wishlist	Add/remove products	Node.js, MongoDB
Cart	Add items and view total	JS, Express
Orders	Place and store orders	MongoDB
Admin Panel	Add/delete/update products	Node.js, MongoDB

Frontend Development

- Vanilla HTML, CSS, and JS
- Clean UI with navigation bar, product grid, cart/wishlist icons
- Responsive layout for desktop and mobile

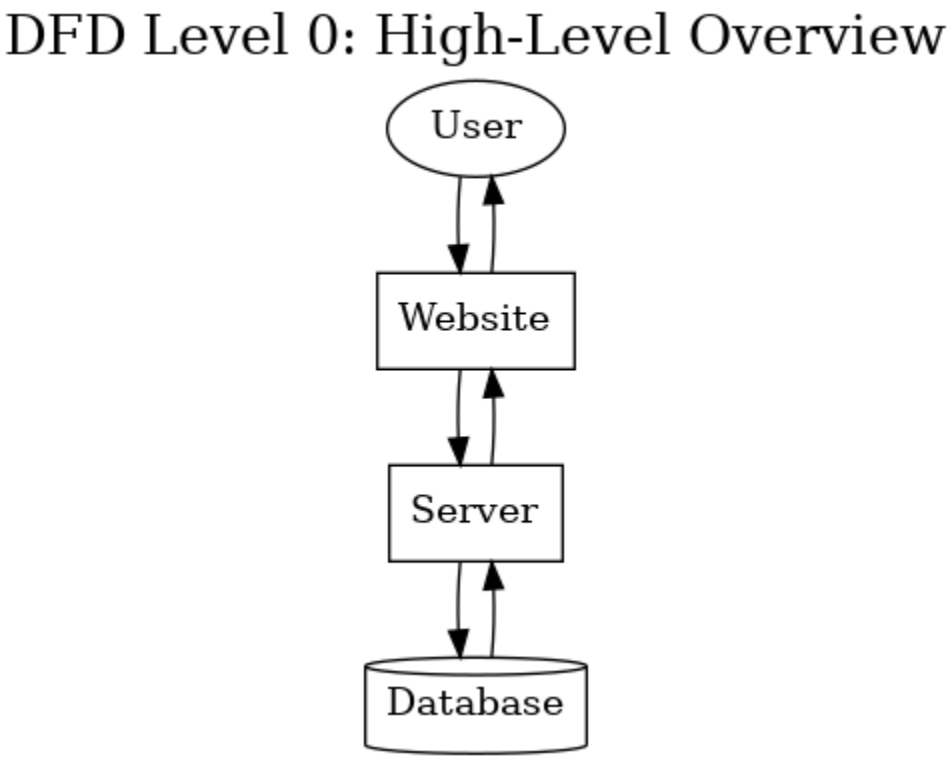
Backend Development

- Express routing (/routes/product.js, /routes/user.js, /routes/order.js)
- RESTful API
- JWT-based Authentication
- Secure and modular route structure

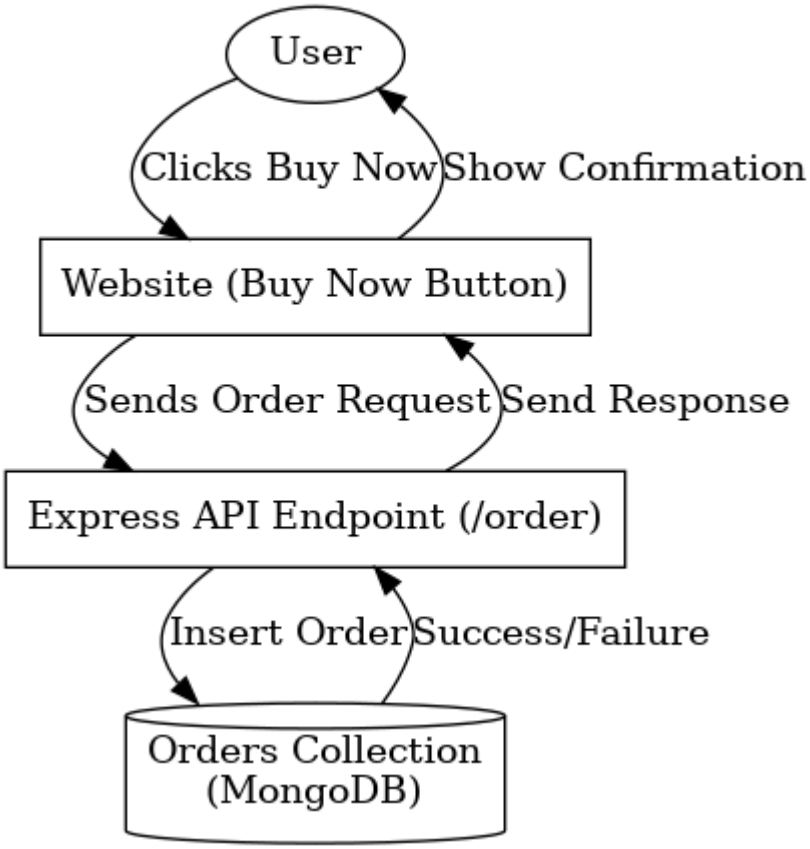
Database Design

- **DBMS**: MongoDB
- **Collections**:
  - users: Stores user credentials
  - products: From data.js
  - wishlist, cart, orders: Each tied to a user ID

Data Flow Diagrams



DFD Level 1: Buy Now Flow



Testing (optional)

- Manual Testing: Frontend buttons, form validation
- Postman: Tested all backend routes (GET/POST/DELETE)
- JWT tested for route protection

Security Measures

- Passwords hashed with bcrypt
- JWT for session handling
- Input validation on backend
- Access control for admin feature

Limitations

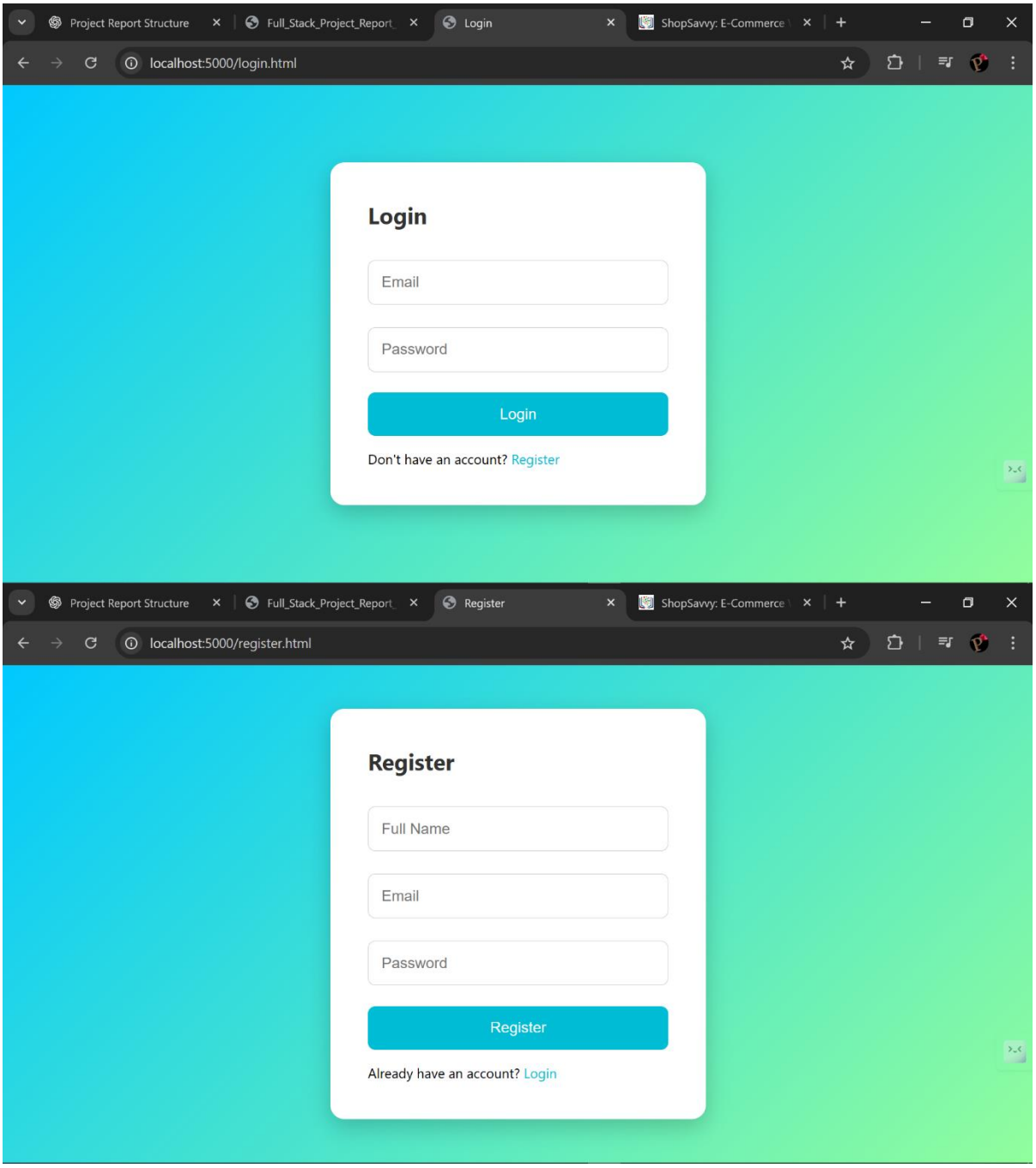
- No payment gateway integration yet
- Admin and customer login not separated visually
- Lacks real-time order update

Future Enhancements

- Add payment gateway (Razorpay/Stripe)
- Use React frontend for dynamic UI
- Email order confirmation
- Admin analytics dashboard
- **Wishlist Functionality**
  - Allow users to save products for later by adding them to a wishlist.
  - In the future, we plan to allow users to share their wishlist or receive alerts when wishlist items are on sale.
- **Buy Now Integration**
  - We have implemented a basic "Buy Now" feature which redirects users to a checkout page.
  - Future improvements will include:
    - Adding address selection
    - Integrating with payment gateways (Razorpay, Stripe, etc.)
    - Order confirmation with email/SMS
- **Order Tracking**
  - Once the "Buy Now" feature is finalized, we plan to allow users to track their orders through a "My Orders" section.
- **User Reviews & Ratings**

- After purchase, users will be able to leave product reviews which can help future buyers make better decisions.

Screenshots

- Login page
- 

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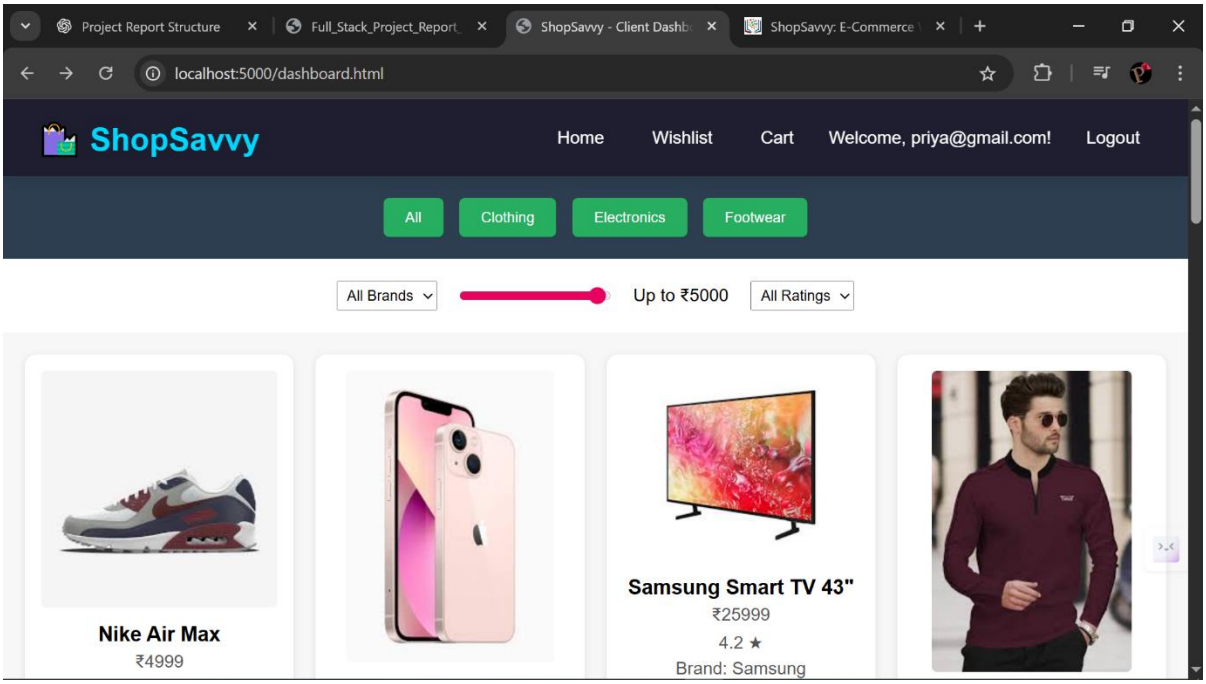
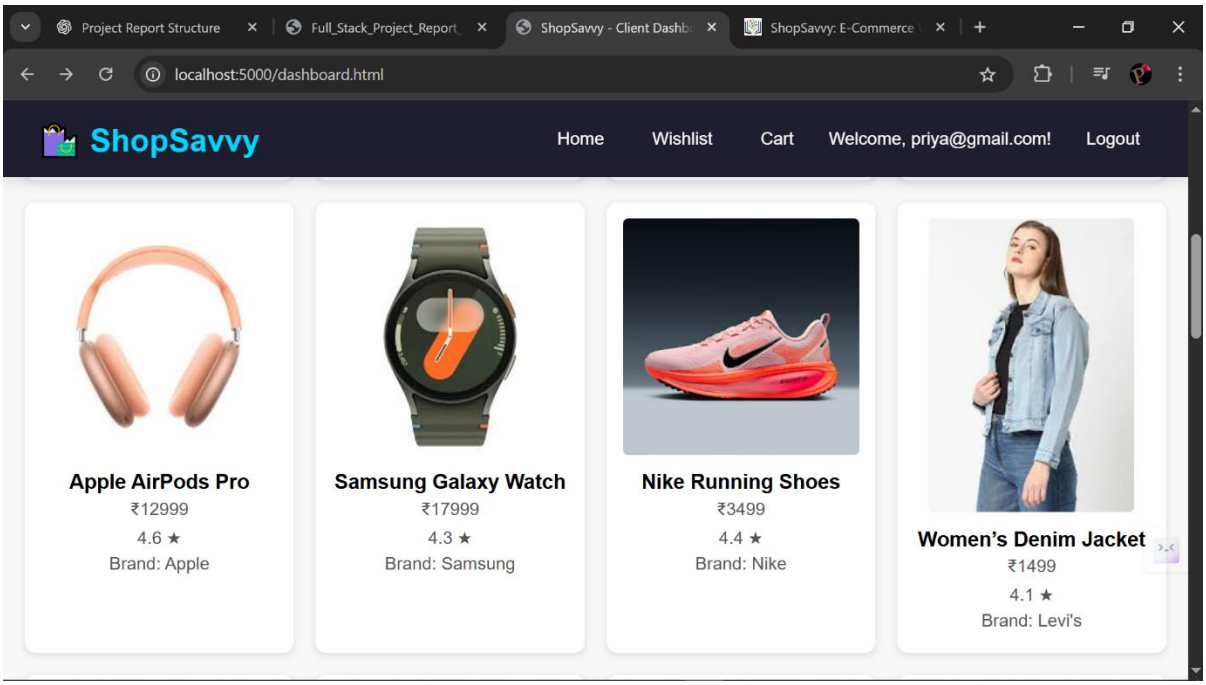
- Dashboard


Project Report Structure
Full_Stack_Project_Report
ShopSavvy - Client Dashb
ShopSavvy: E-Commerce
localhost:5000/dashboard.html
ShopSavvy
Home
Wishlist
Cart
Welcome, priya@gmail.com!
Logout
All
Clothing
Electronics
Footwear
All Brands
Up to ₹5000
All Ratings
Nike Air Max
₹4999
Samsung Smart TV 43"
₹25999
4.2 ★
Brand: Samsung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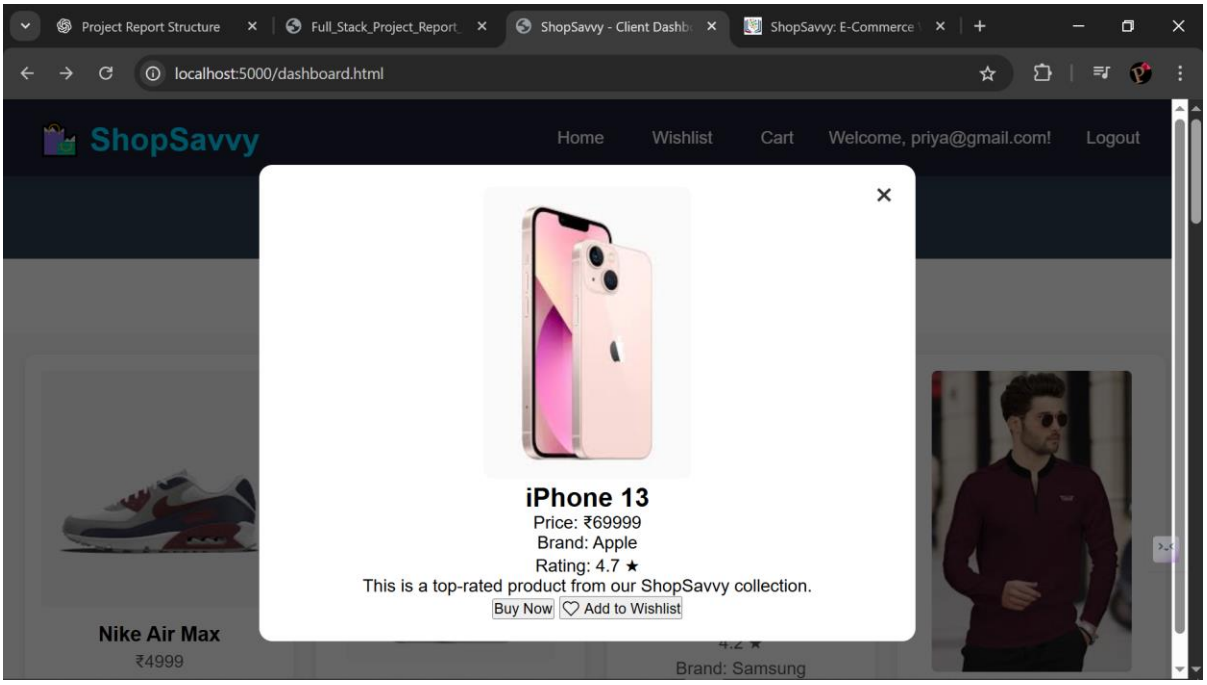
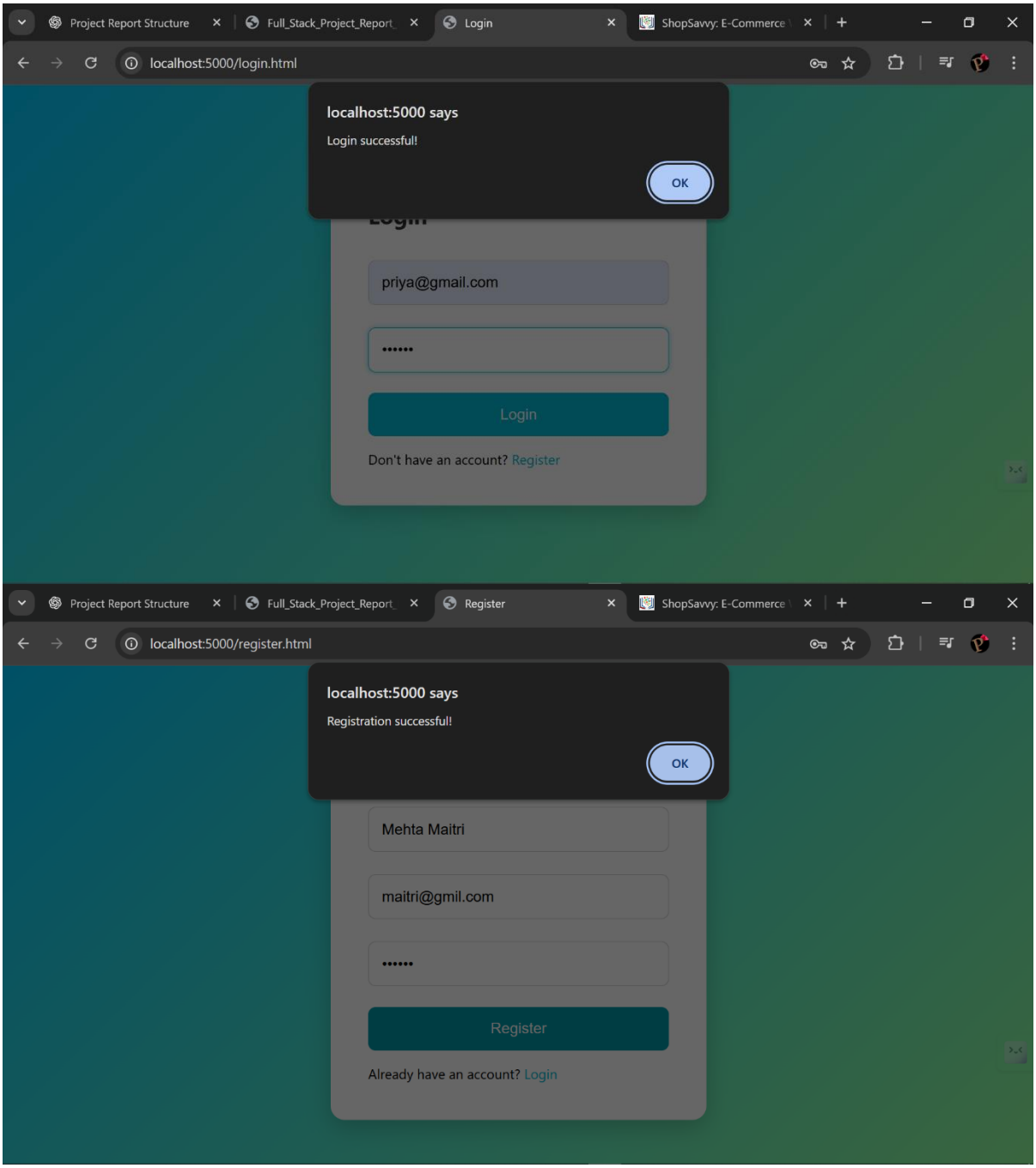
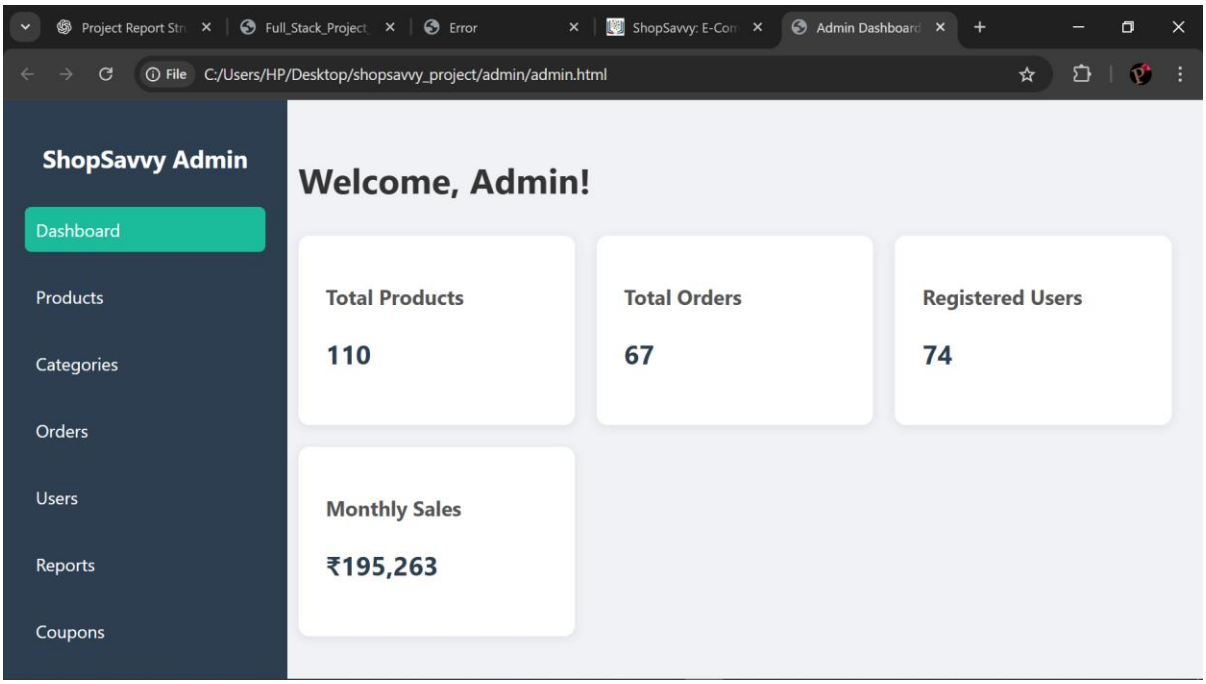
ShopSavvy: E-Commerce
localhost:5000/dashboard.html
ShopSavvy
Home
Wishlist
Cart
Welcome, priya@gmail.com!
Logout
Apple AirPods Pro
₹12999
4.6 ★
Brand: Apple
Samsung Galaxy Watch
₹17999
4.3 ★
Brand: Samsung
Nike Running Shoes
₹3499
4.4 ★
Brand: Nike
Women's Denim Jacket
₹1499
4.1 ★
Brand: Levi's

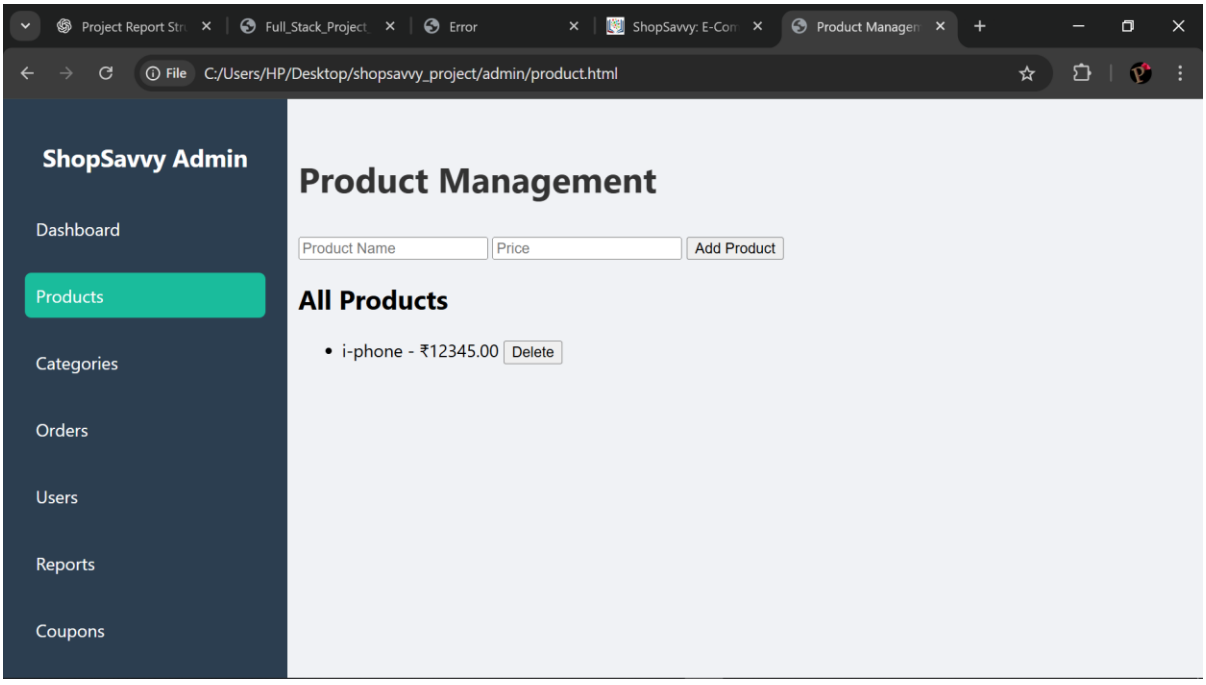


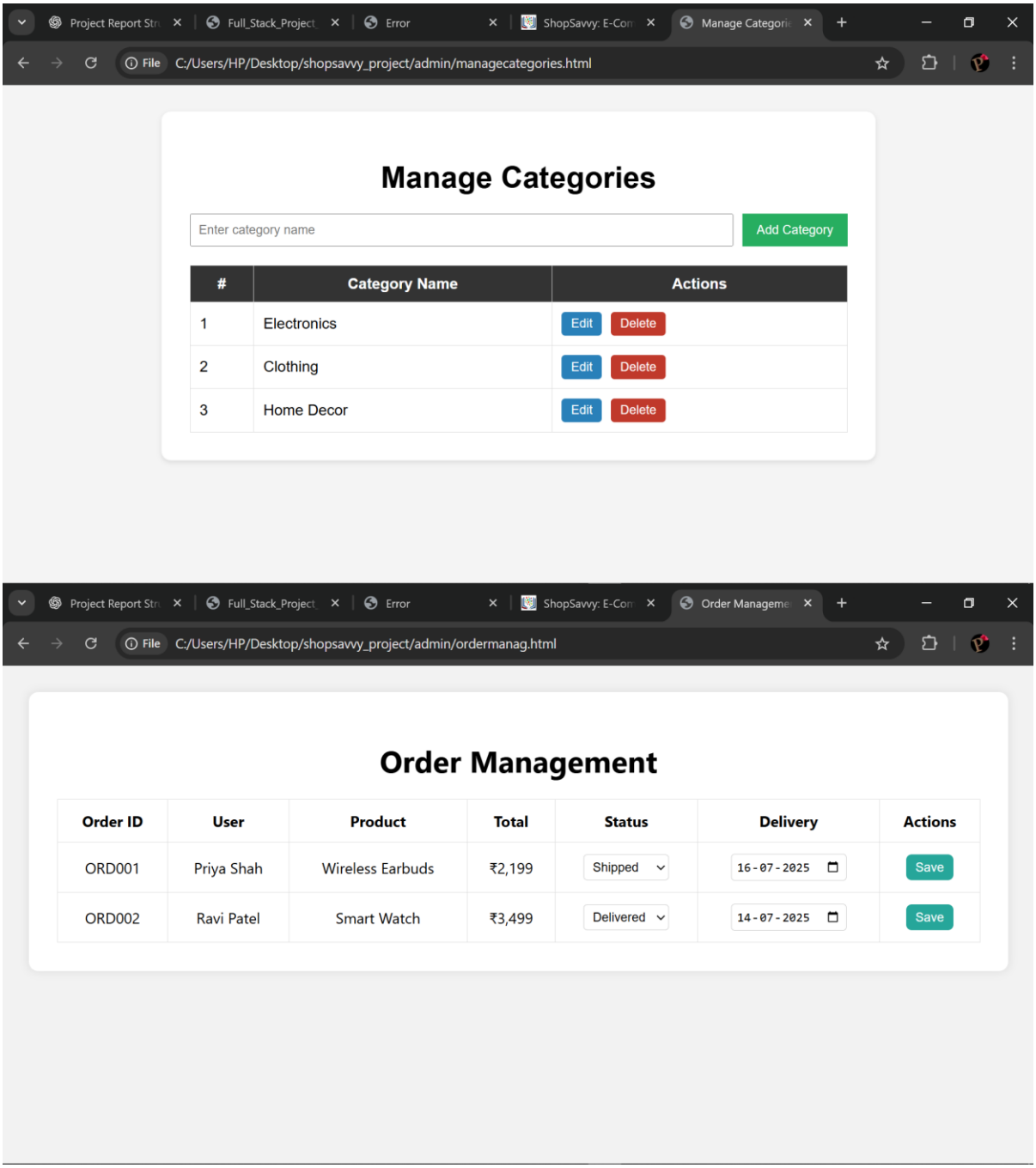
- CRUD operations


Project Report Structure
Full_Stack_Project_Report
Login
ShopSavvy: E-Commerce
localhost:5000/login.html
localhost:5000 says
Login successful!
OK
priya@gmail.com
Login
Don't have an account? Register
Project Report Structure
Full_Stack_Project_Report
Register
ShopSavvy: E-Commerce
localhost:5000/register.html
localhost:5000 says
Registration successful!
OK
Mehta Maitri
maitri@gmil.com
Register
Already have an account? Login

- Admin panel etc.



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Full_Stack_Project
Error
ShopSavvy: E-Com
Manage Categorie
File
C:/Users/HP/Desktop/shopsavvy_project/admin/managecategories.html
Manage Categories
Enter category name
Add Category
Category Name Actions
1 Electronics Edit Delete
2 Clothing Edit Delete
3 Home Decor Edit Delete

Project Report Str
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Error
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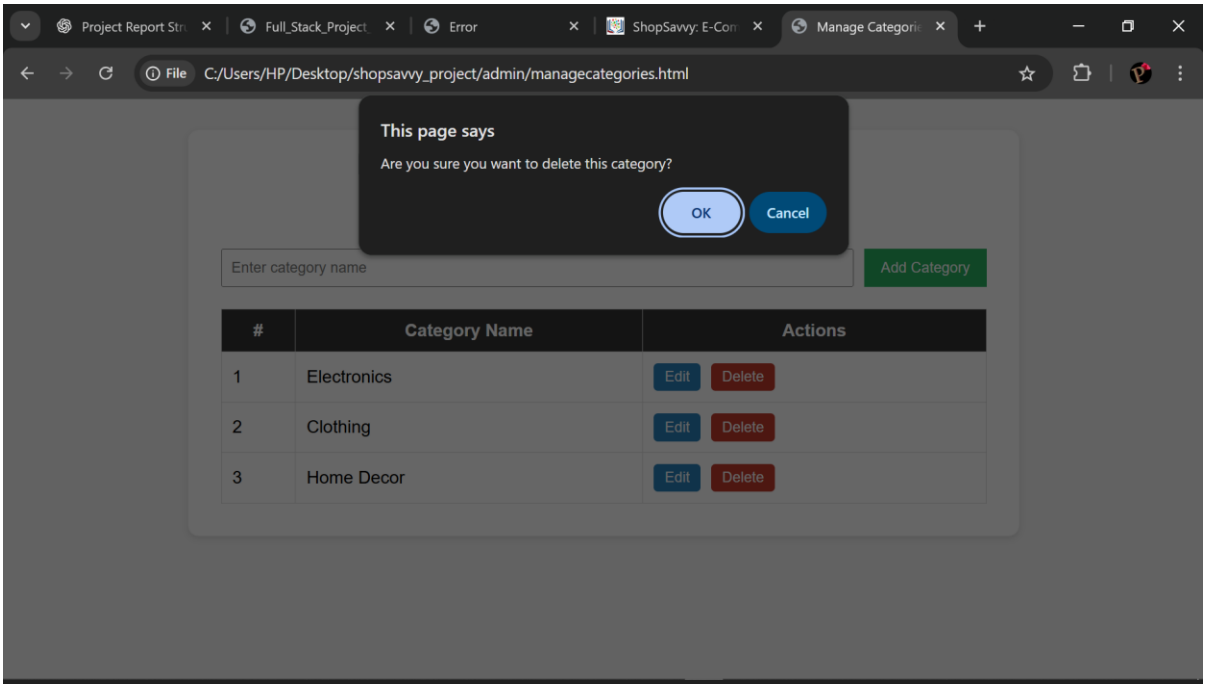
Order Manageme
File
C:/Users/HP/Desktop/shopsavvy_project/admin/ordermanag.html
Order Management
Order ID User Product Total Status Delivery Actions
ORD001 Priya Shah Wireless Earbuds ₹2,199 Shipped 16-07-2025 Save
ORD002 Ravi Patel Smart Watch ₹3,499 Delivered 14-07-2025 Save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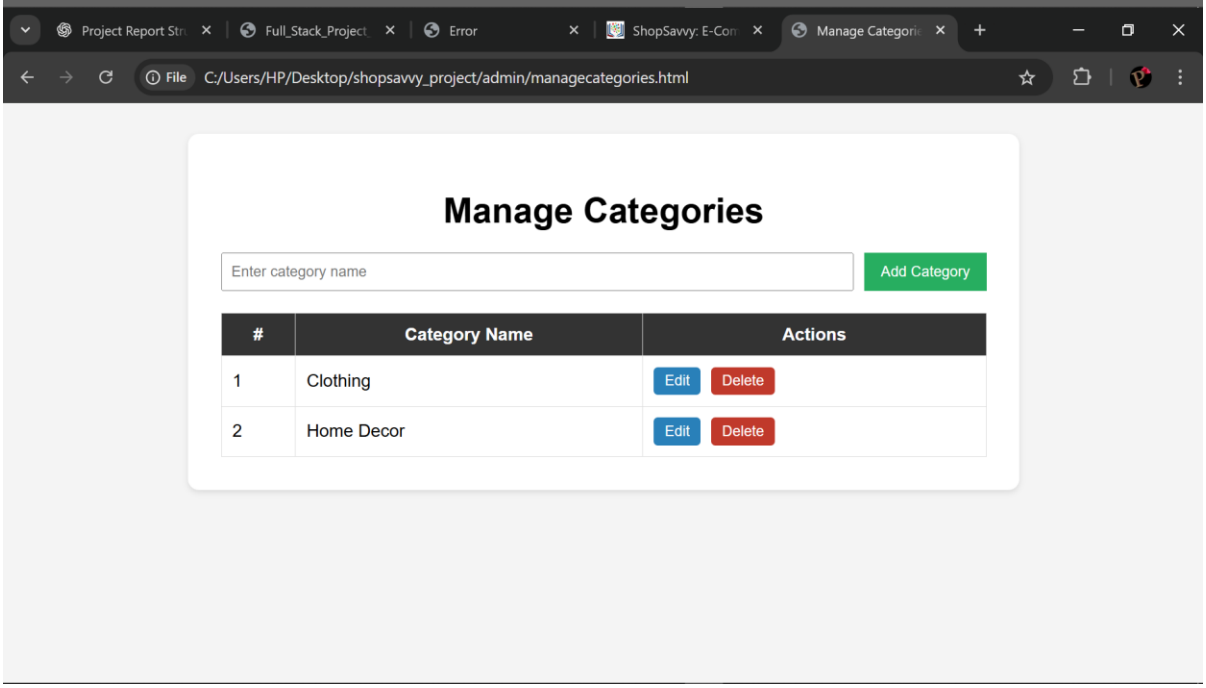
ShopSavvy: E-Com
Manage Categorie
File
C:/Users/HP/Desktop/shopsavvy_project/admin/managecategories.html
This page says
Are you sure you want to delete this category?
OK
Cancel
Enter category name
Add Category
Category Name Actions
1 Electronics Edit Delete
2 Clothing Edit Delete
3 Home Decor Edit Delete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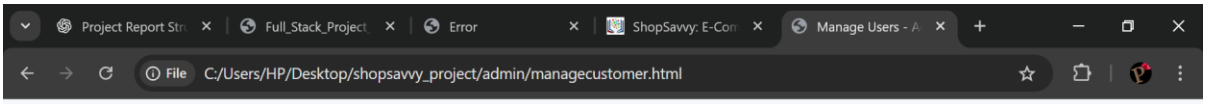
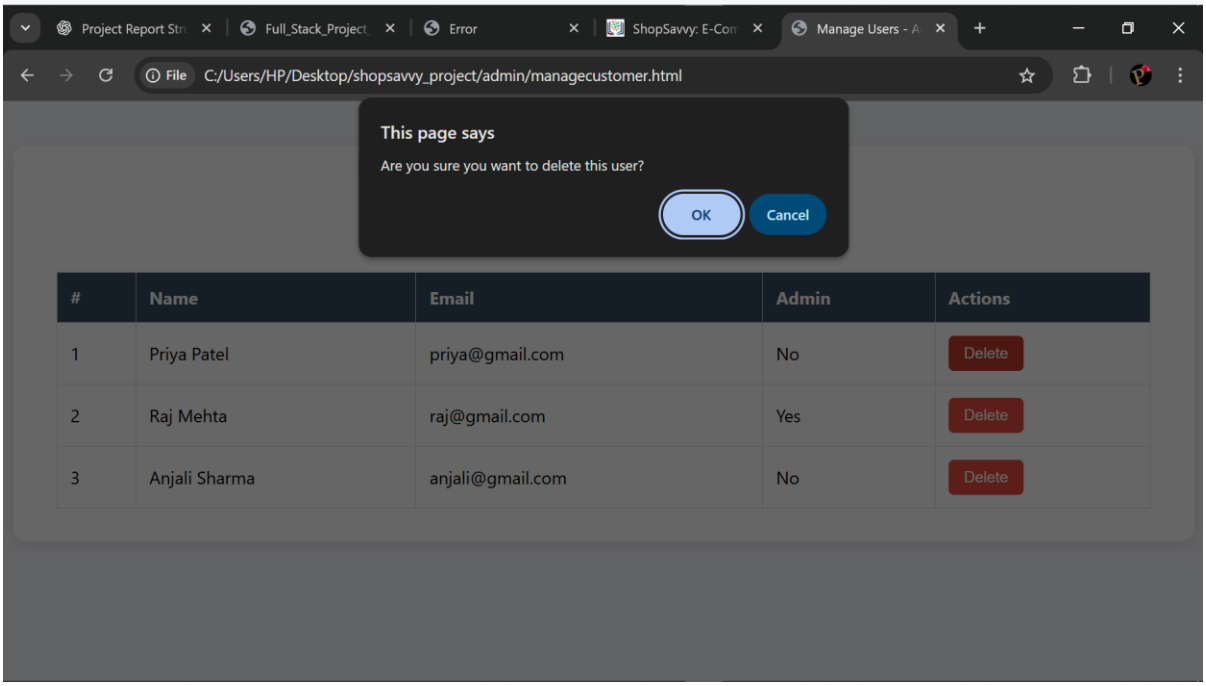
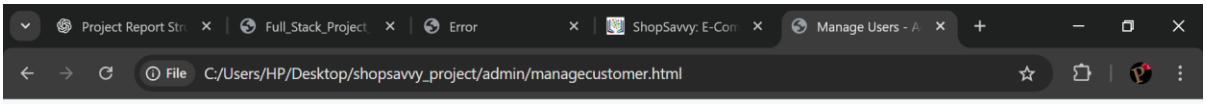


Manage Users

#	Name	Email	Admin	Actions
1	Priya Patel	priya@gmail.com	No	Delete
2	Raj Mehta	raj@gmail.com	Yes	Delete
3	Anjali Sharma	anjali@gmail.com	No	Delete

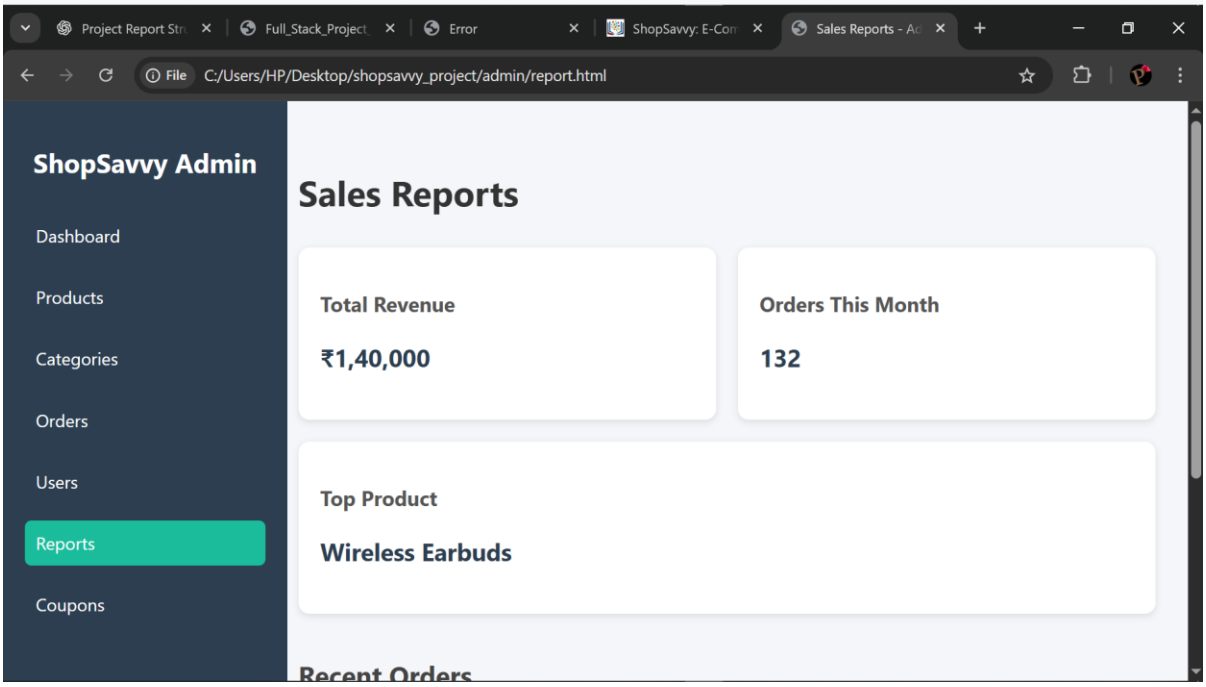


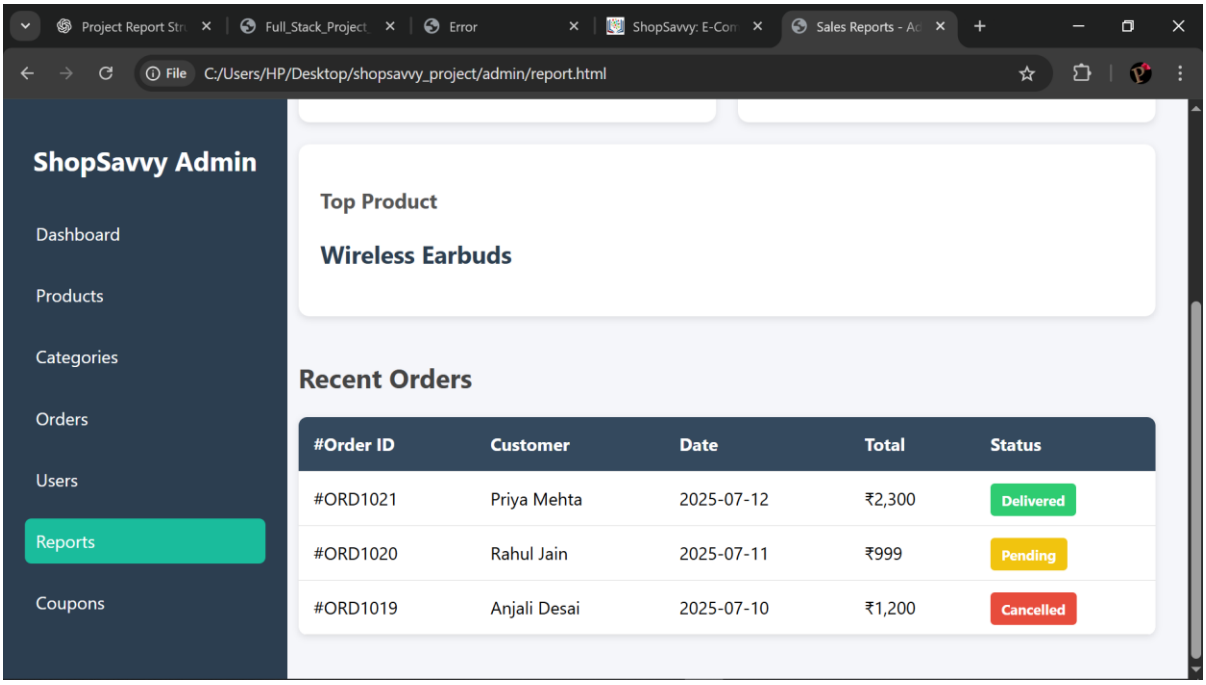
#	Name	Email	Admin	Actions
1	Priya Patel	priya@gmail.com	No	Delete
2	Raj Mehta	raj@gmail.com	Yes	Delete
3	Anjali Sharma	anjali@gmail.com	No	Delete



Manage Users

#	Name	Email	Admin	Actions
1	Raj Mehta	raj@gmail.com	Yes	Delete
2	Anjali Sharma	anjali@gmail.com	No	Delete





Annexures

- Code Snippets: Main server.js, order.js, wishlist logic
- API Docs: POST /order, GET /products, etc.
- GitHub Link: https://github.com/priyanka200401/my-project

References

- Express.js Documentation
- MongoDB Docs