IKOM E-Commerce Project

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JULY – NOV 2023

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Introduction

"IKOM" is Online shopping website that designed to make shopping easy and fun for people. Our website that's easy to use, and great customer service. In this report, we will tells more about the functions, features and about the technology behind IKOM, who our customers are, the products we sell.

Online shopping is getting more popular, and IKOM wants to be a part of it by offering a safe and enjoyable shopping experience.

Tools and Technologies used :

    (i)   **React JS**

    (ii)   **React-redux**

    (iii)   **Node JS**

    (iv)   **MongoDB (NoSQL Database)**

    (v)   **REST API**

Description

We have two types of modules

(1)   Customer Module

(2)   ADMIN Module

Features and Functionalities for Customer

(i)   **Registration:** New customers can create an account by providing their name, email address, and a password.

(ii)   **Login:** Registered customers can login on site by using there email and password.

(iii) **Password Recovery:** A "Forgot Password" feature enables users to reset their password if forgotten, by sending a reset link to their registered email by using Nodemailer with Gmail and NodeJS.

(iv)   **Change Password:** Customers can update their password from account section by change password.

(v)   **User-Friendly Interface:** IKOM has an easy-to-navigate website design, making it simple for customers to find what they're looking for. You can browse categories, search for products, and add items to your cart with ease.

(vi)   **Product Search:** Users can enter keywords or phrases to search for specific products.

(vii) **Category and Pricing Filters:** The website allows users to filter products by category, such as Smartphone, Books and Camera etc or by price of their choice.

(viii) **Adding Items**: Users can add products they want to purchase by clicking the "Add to Cart" button next to each item.

(ix) **Managing Your Cart**: While in your cart, you can adjust the quantity of items.

(x) **Rating and Comments**: Customers can typically rate the product (e.g., with stars) and write comments about their experience, including what they liked or didn't like.

Features and Functionalities for Admin

Admin Dashboard:

Admins have access to a dedicated dashboard with various tools and controls for managing the website.

1. Create Product:

- Admins can add new products to the website, including details such as product name, description, price, images, and category.
- They can also set stock levels.

2. Edit Product:

- Admins can update product information, pricing, or images for existing products as needed.

3. Delete Product:

- Admins have the authority to remove products from the website when they are no longer available or relevant.

4. Delete Review:

- In cases where a review violates the website's policies or is fraudulent, admins can delete reviews from product pages but can't modify .

5. User Management:

- Admins can modify user role i.e. Admin can change regular user role from USER role to Admin role.
- Admins can remove a User.

6. Order Management:

- Admins can view and manage customer orders, tracking order status, and resolving order-related issues.
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7. Stock Management:

- Admins can view and manage the available stock of products. They may see the current stock levels, and update inventory information.

Home Page

Header:

At the top, there's a header that often includes the website's logo, navigation menus, search bar, Account, view cart and scroll button.
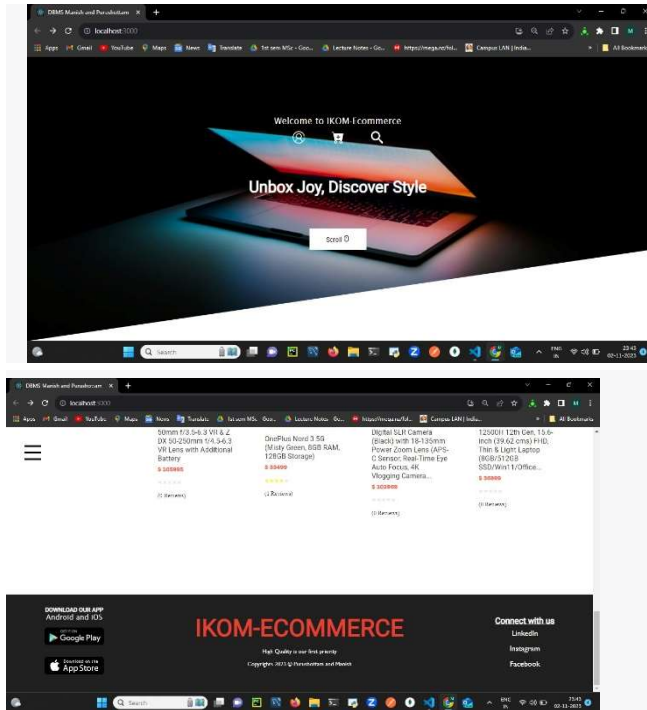
Featured Products:

A section showcasing popular or newly added products with images, titles, and prices.

Navigation Bar:

- **Homepage Link:** It redirects you to HOMEPAGE of website
- **All Products Page:** A link that directs users to a page displaying all available products or a product category overview.
- **Login Page:** A link for customers to access the login page, where they can enter their credentials to access their accounts.
- **Search Bar:** A prominent search bar allows users to enter keywords and search for specific products or information.
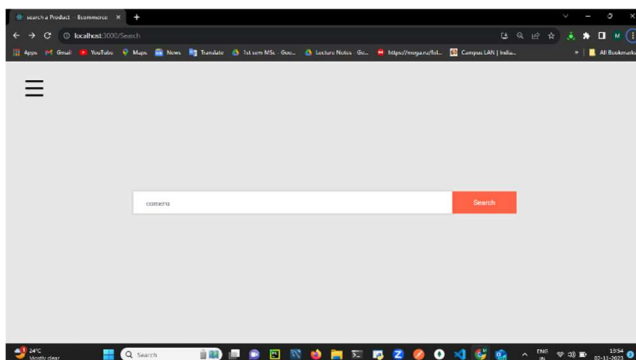
Footer:

The bottom section containing links to important pages like contact information, social media links, AppStore and PlayStore link.

Footer
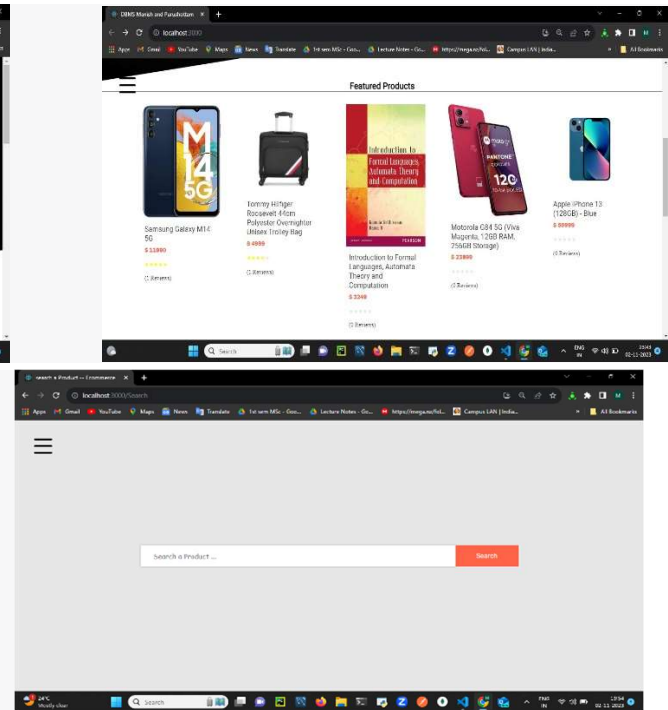
Search
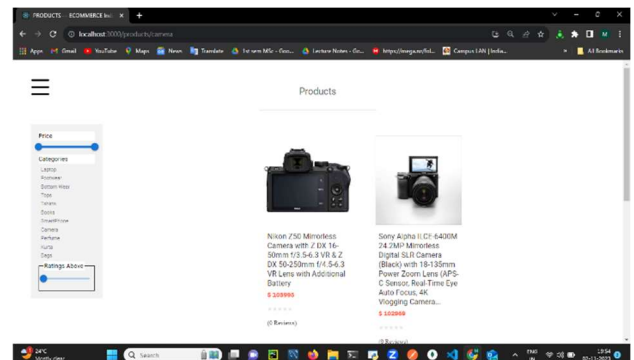
Product Page

1. **Product Listings:** A grid or list of various products, each featuring a product image, name, and brief description.
2. **Category Filters:** Filters that allow users to refine product listings by specific categories (e.g., Laptop, Book or Camera etc).
3. **Pagination:** Button to navigate to additional pages of product listings,
4. **Product Images:** Clicking on a product's image or name takes users to the individual product page for more details.
5. **Product Ratings:** If available, customer ratings or reviews may be displayed alongside product listings.
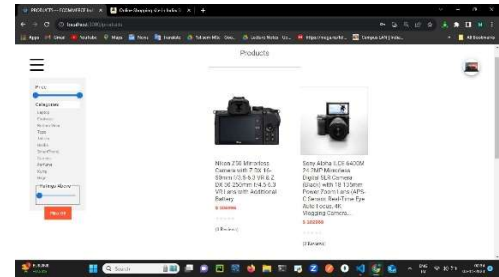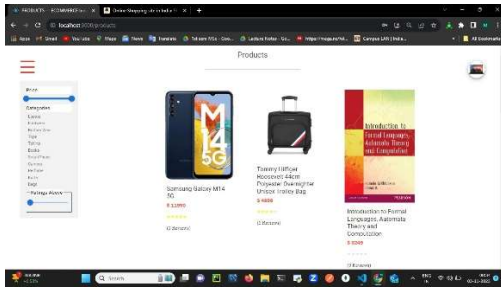
Product Details Page

1. **Product Name:** The name of the product is prominently displayed at the top of the page.
2. **Product Images:** A high-quality product image is essential for users to assess the product's appearance, quality, and suitability.
3. **Product Description:** A detailed written description of the product's features, specifications, and benefits.
4. **Pricing:** The price of the product, any available discounts, and the option to add the item to the cart.
5. **Customer Reviews:** If available, customer reviews and ratings to help users access product quality and customer satisfaction.
6. **Product Variations:** If the product has options like size, color, or model, users can choose their preferred variation.
7. **Availability:** Information on product stock level .
8. **Add to Cart:** A button that allows users to add the product to their shopping cart for purchase.
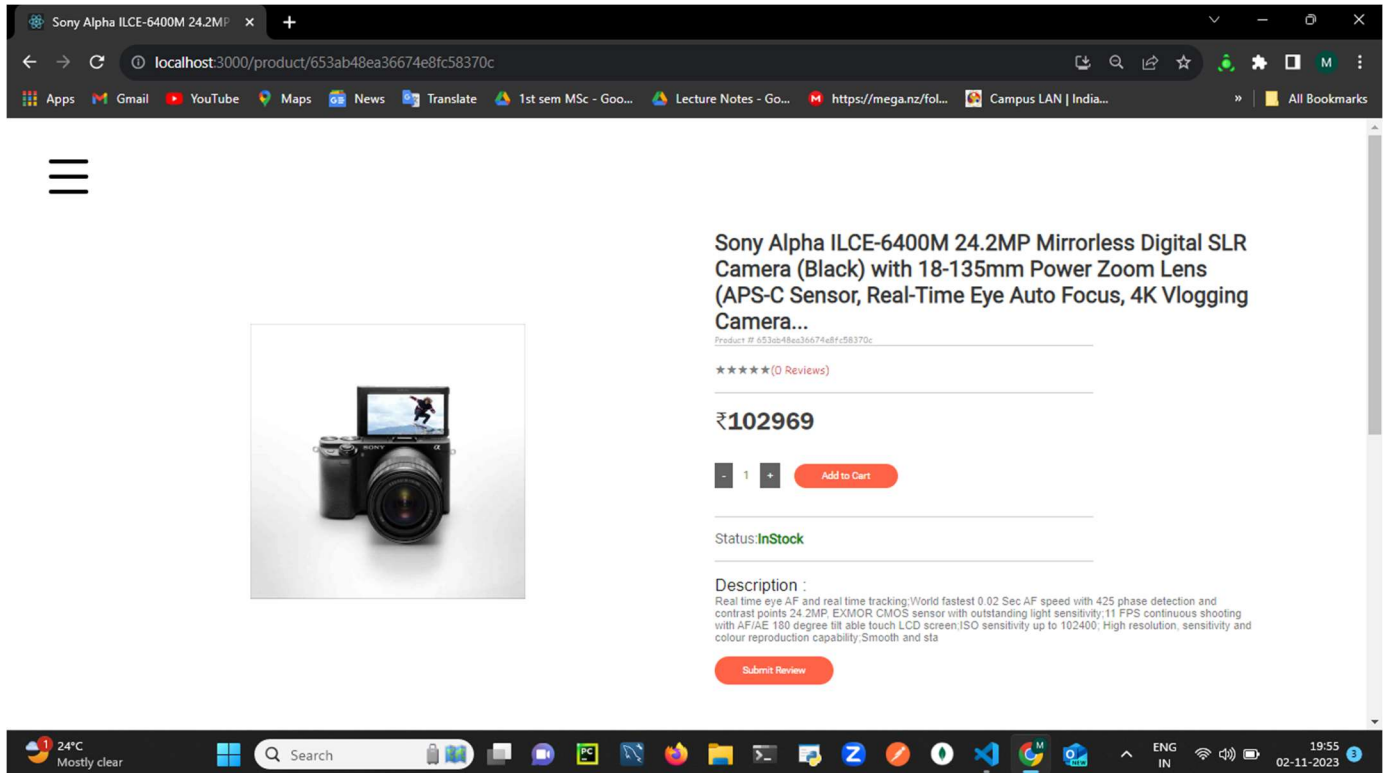
Authentication Page

Registration :

1. **Registration Form:** A form where users can enter their personal information, including name, email, profile picture and a password

2. **Register Button:** A button to complete the registration process.

3. **After Successfully Registration:** User directs to account page.

Login

4. **Email and Password Fields:** Users can enter their registered email address and associated password.

5. **Forgot Password:** An option to initiate the password reset process if users forget their password.

6. **Login or Register Button:** Buttons to initiate the login or registration process.
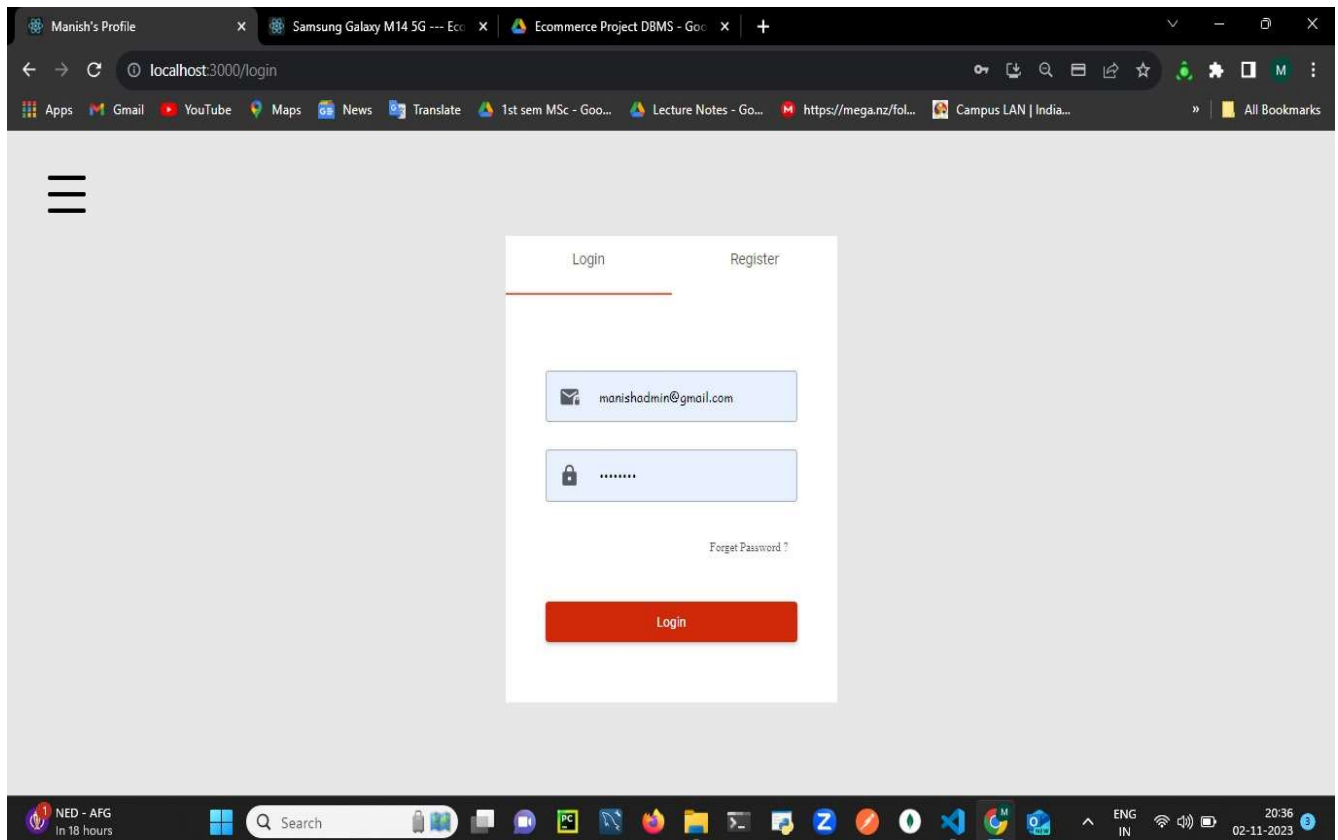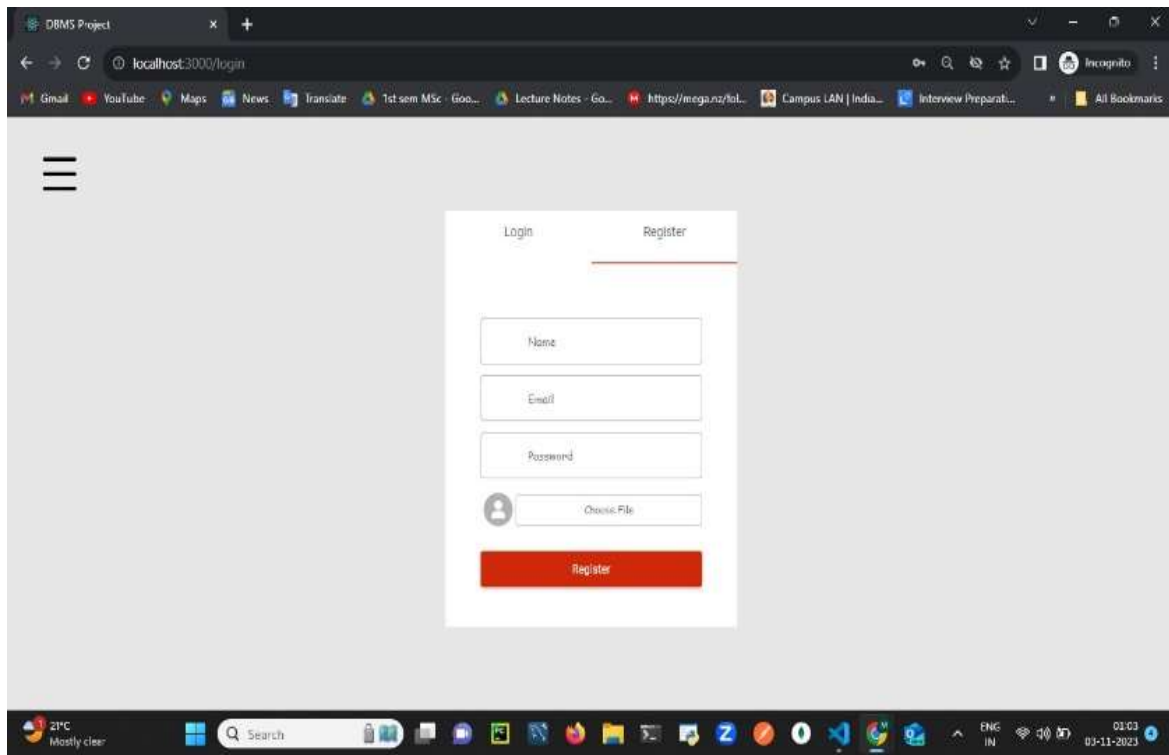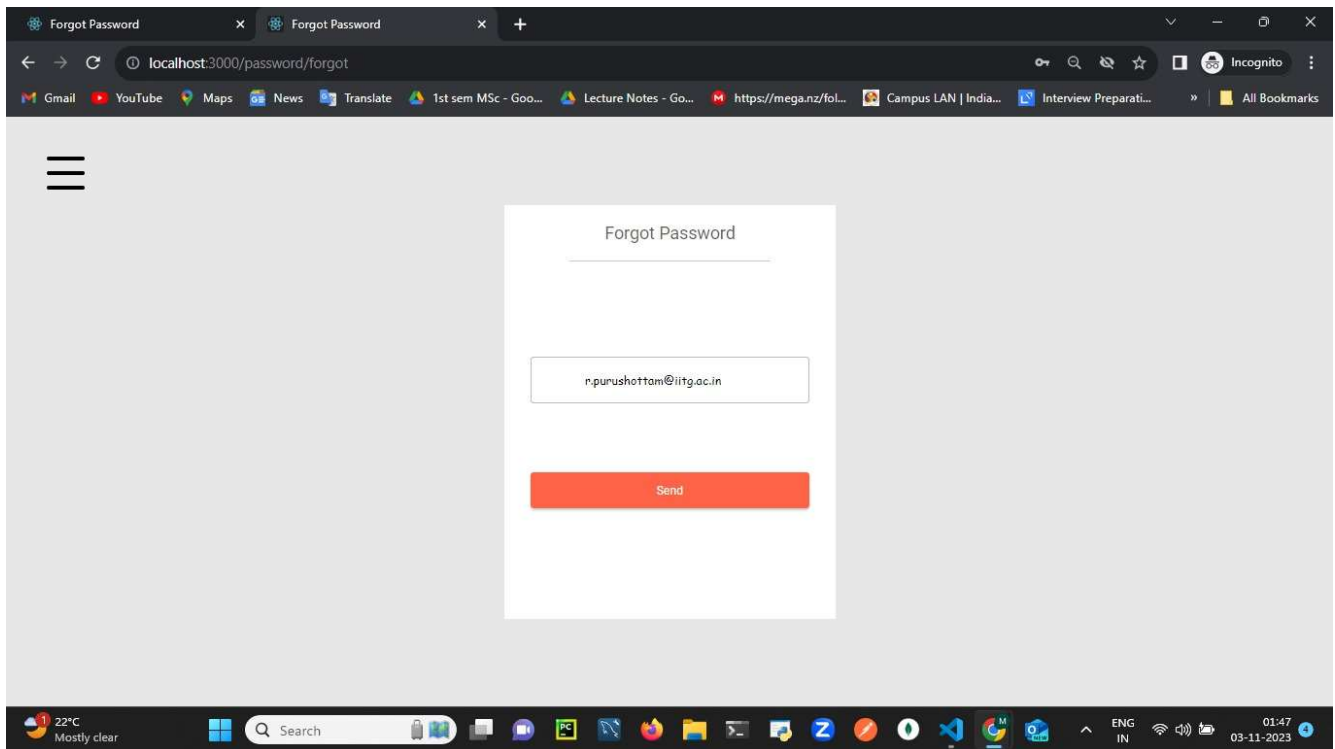
Profile Page

1. **Account Information:** Users can view and edit their personal details, e.g: name, email address, profile picture.
2. **Change Password:** An option for users to change their password.
3. **Order History:** A section displaying named "My Orders" including past purchases, order status, and tracking information.
4. **Log Out:** A button that allows users to log out of their account when they're done using the website.
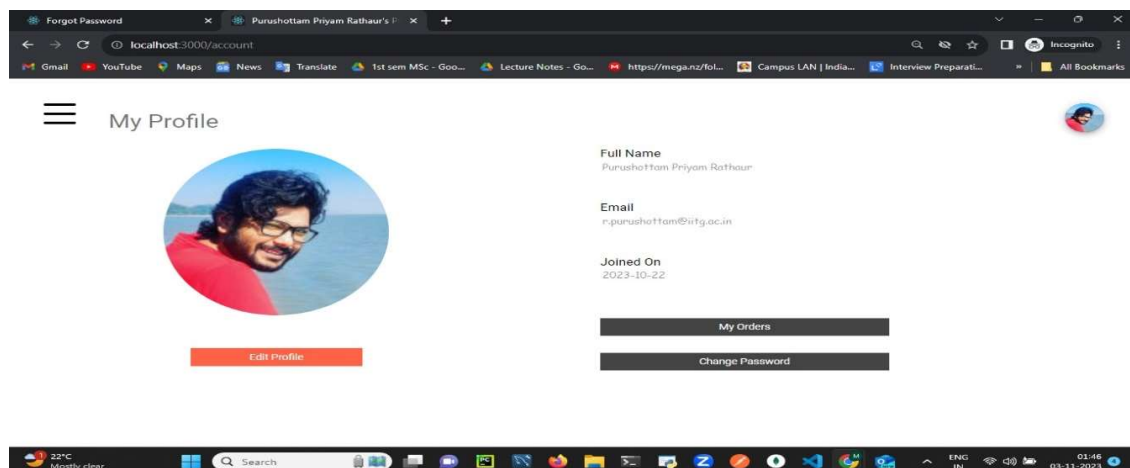
Add to Cart Page

1. **List of Products:** A list of the products that have been added to the user's shopping cart, including images, names, and quantities.
2. **Product Details:** Additional information about each product, such as price, total cost, and the option to remove items.
3. **Quantity Adjustment:** Users can often change the quantity of items in the cart or remove products they no longer wish to purchase.
4. **Subtotal:** The total cost of the items in the cart before taxes and shipping fees.
5. **Proceed to Checkout:** A button that allows users to move to the checkout process to complete their purchase.
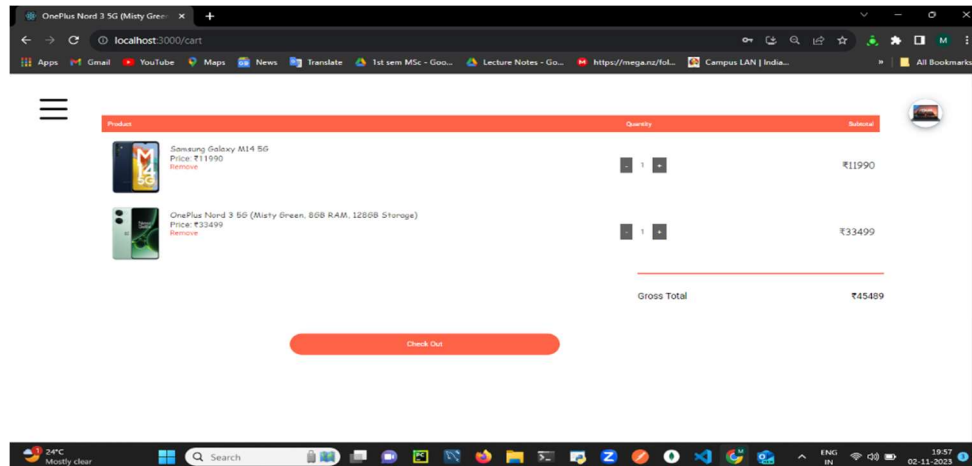

Shipping Page

1. **Shipping Address:** Users provide or verify the shipping address for the delivery of their order.
2. **Continue to Payment:** A button to proceed to the payment step to complete the purchase.
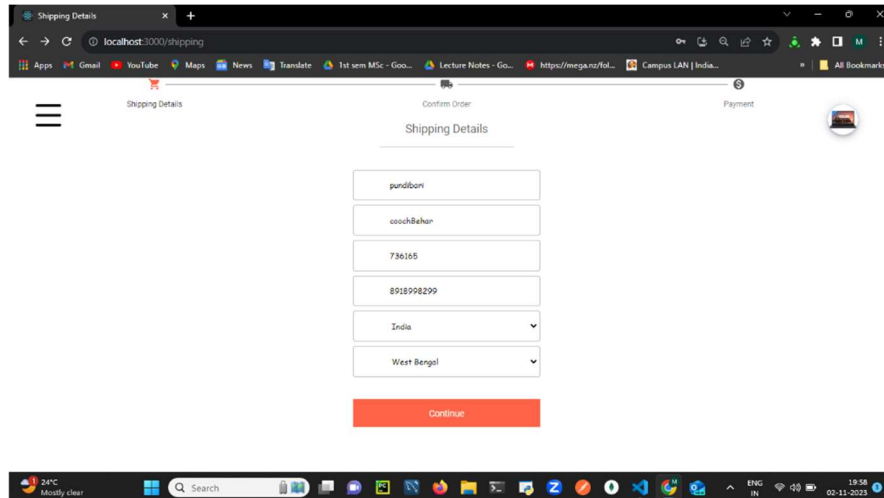
Confirm Order Page

1. **Order Summary:** A comprehensive summary of the user's order, including the list of items, quantities, prices.
2. **Order Total:** The total cost of the order, including product prices, shipping fees, and any applicable taxes like GST.
3. **Proceed to Payment:** The final step, where users click to Proceed to Payment the order and complete the purchase.
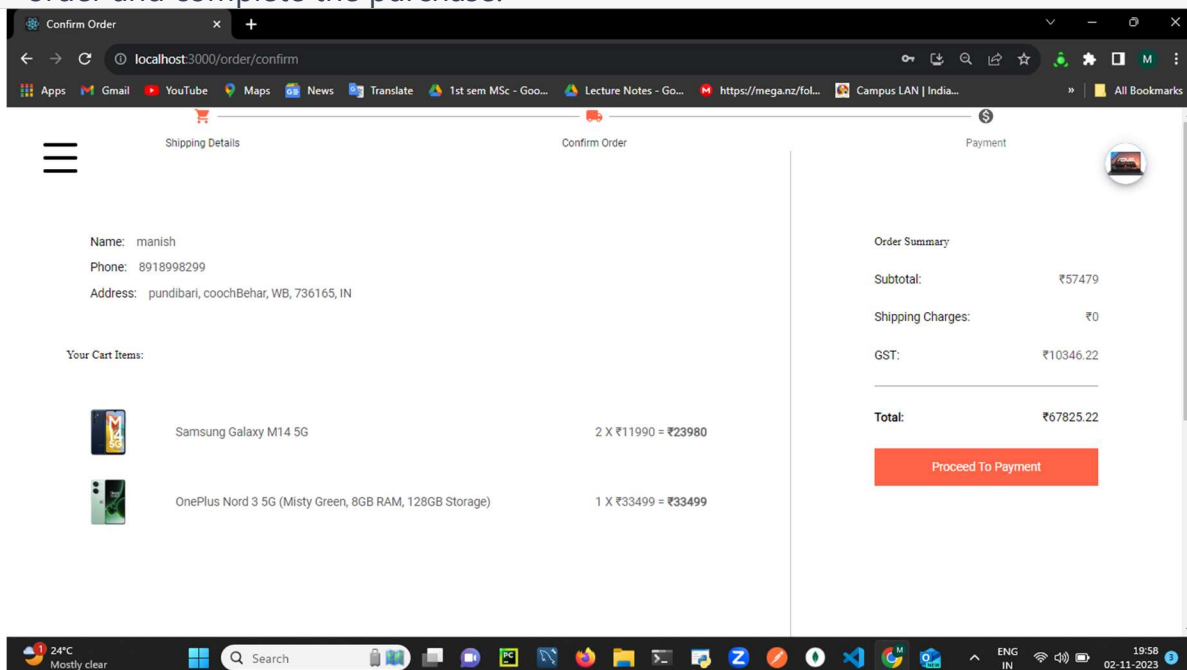

Payment Page

1. **Card Information:** Paying by credit or debit card, users enter card details, including card number, expiration date, and CVV code
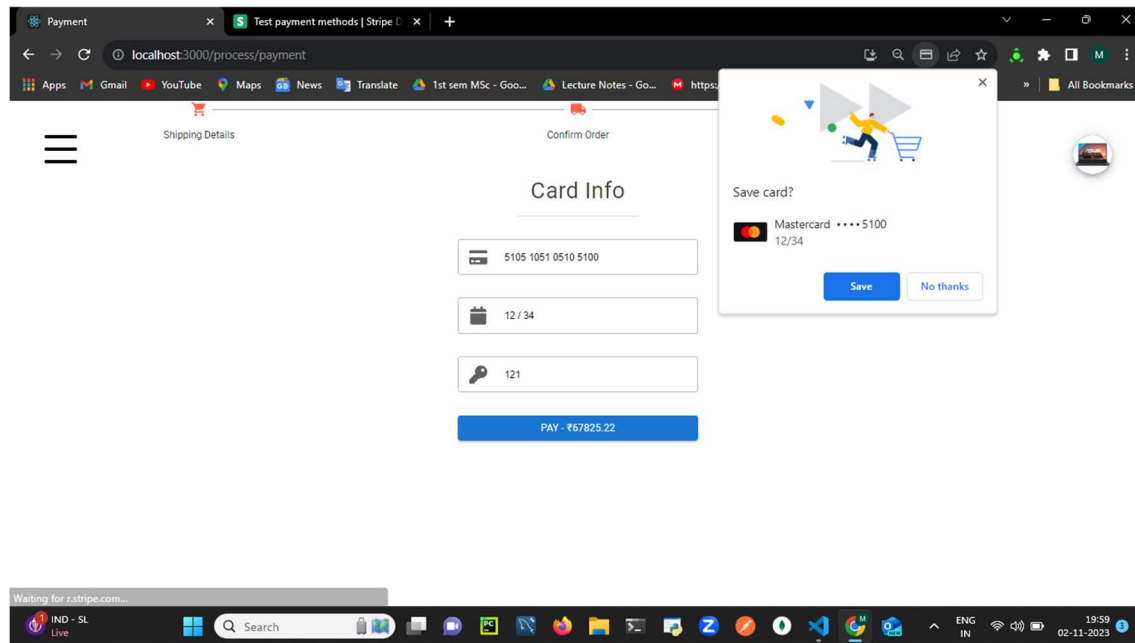

Order Page

1. **Order ID:** A unique identification number assigned to each order, which serves as a reference for tracking and customer support.
2. **Order Status:** Information indicating the current status of the order, such as "Processing," "Shipped," or "Delivered."
3. **Item Quantity:** The quantity of items ordered in each line item of the order.
4. **Item Descriptions:** A brief description of each item or product included in the order.
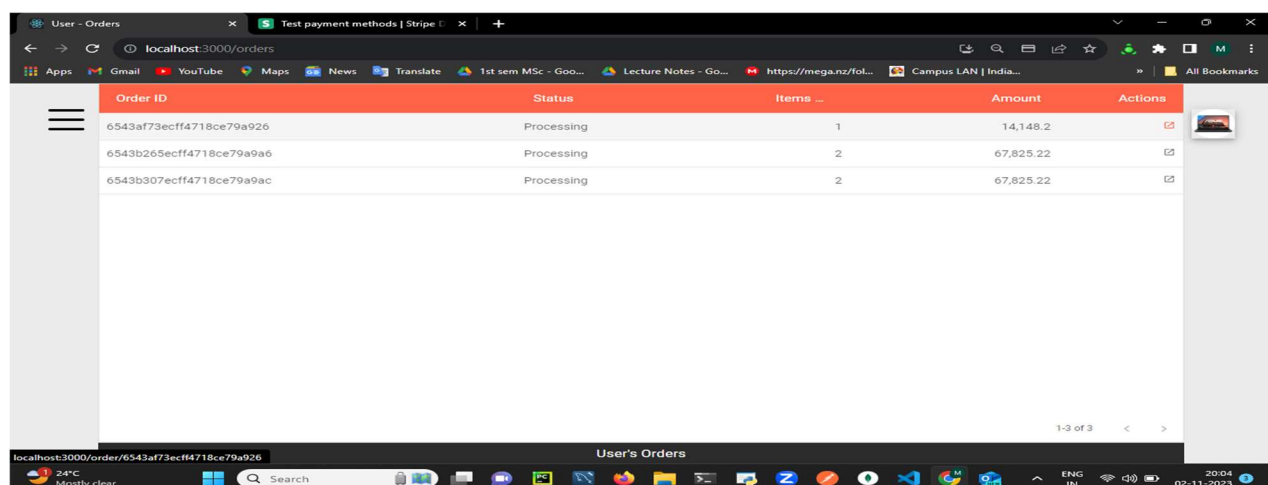
Order Details Page

1. **Order ID:** A unique identification number assigned to the order for reference and tracking.
2. **Item Name:** A list of the items or products included in the order, along with their names.
3. **Shipping Information:** Details about the shipping address.
4. **Total Price with GST:** The total cost of the order, including product prices, shipping fees, and any applicable taxes, such as Goods and Services Tax (GST).
5. **Order Status:** Information indicating the current status of the order, such as "Processing," "Shipped," "Delivered".
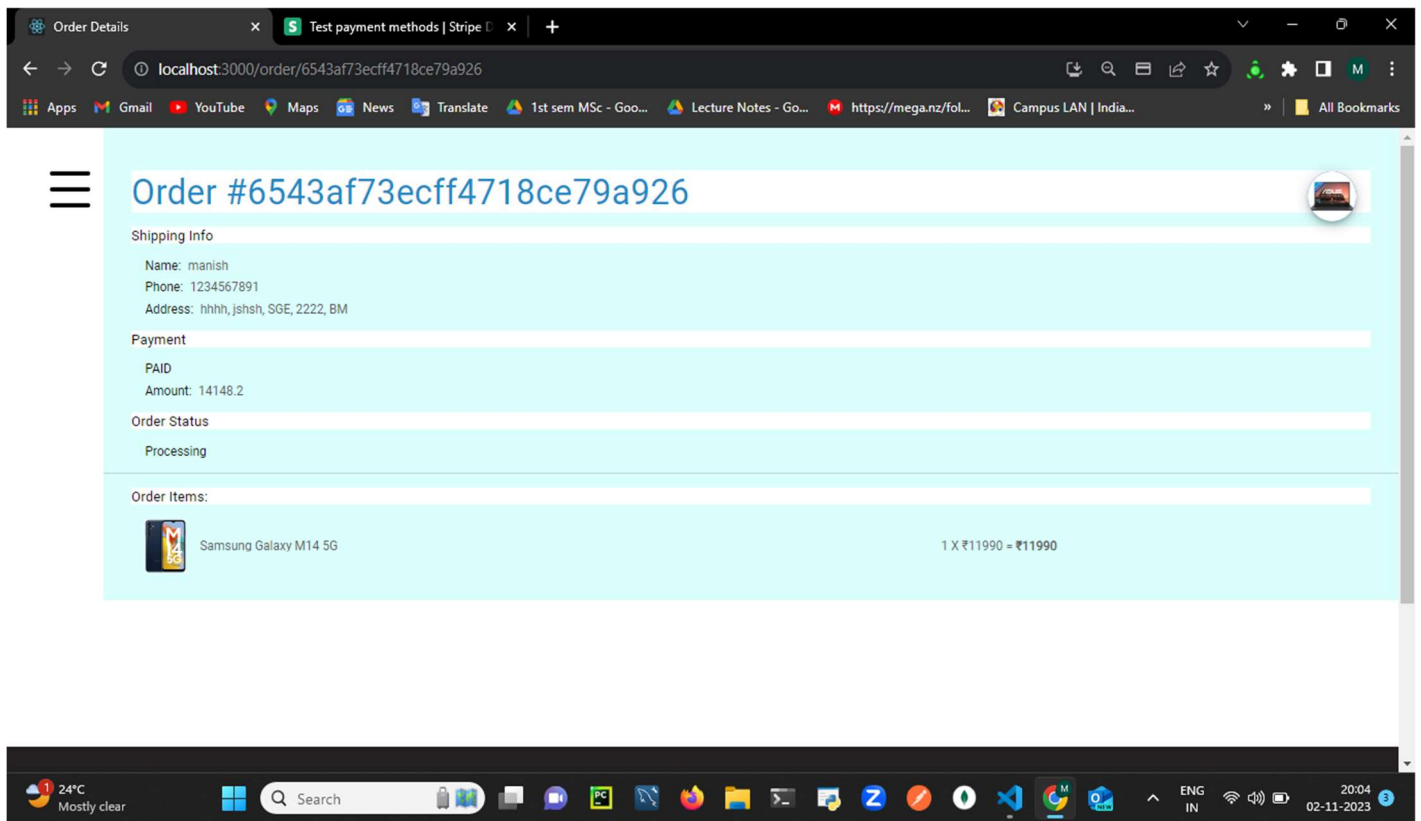

Thanks

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Admin DASHBOARD

1. **All Orders:** A section displaying a list of all orders made on the platform, including order details, order status, and customer information.
2. **All Users:** An overview of all registered users, allowing administrators to manage user accounts, access user details, and perform administrative actions.
3. **All Products:** A comprehensive list of all products available on the website, including product details, categories, and stock information.
4. **Create Product:** An option to add new products to the platform, including product images, descriptions, pricing, and category assignments.
5. **All Reviews:** A section to view and manage customer reviews and ratings of products, including the ability to moderate and respond to reviews.
6. **Graphical Linear Representation of Total Amount Income:** A graphical representation, such as a line chart, showing the total income over time, allowing administrators to track financial performance.
7. **Pie Chart Representation of Stock Status:** A pie chart (illustrating the status of product stock, showing the distribution of items in stock and out of stock.
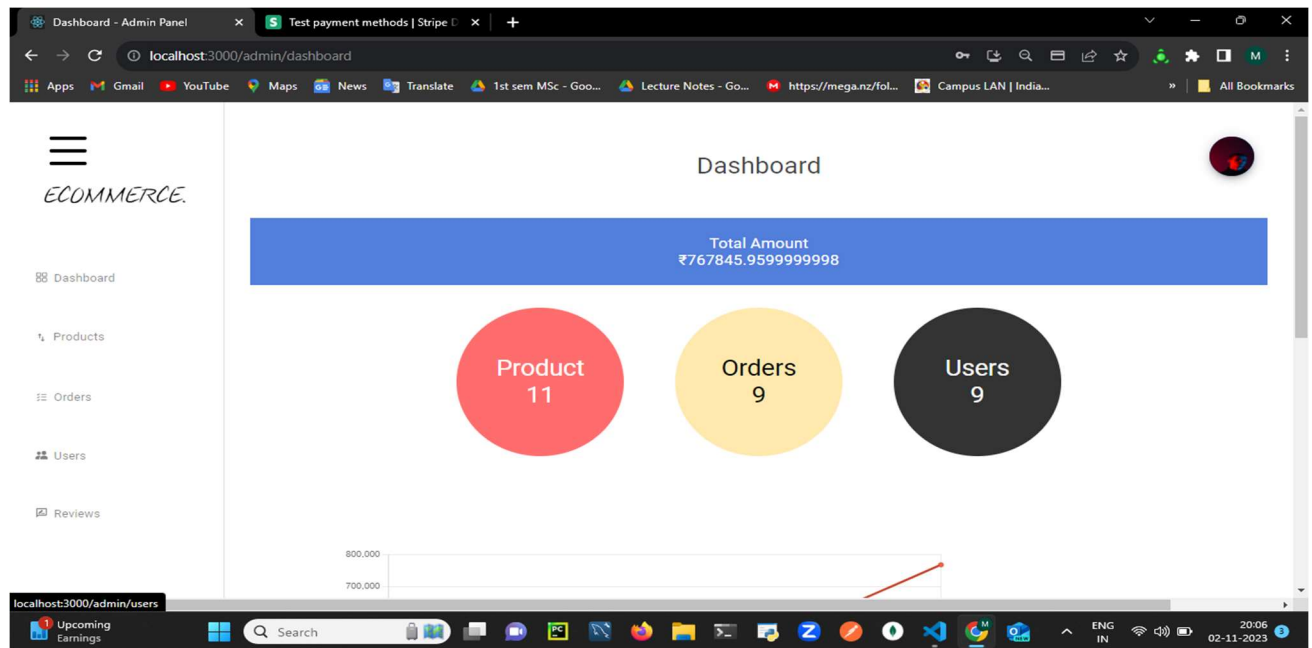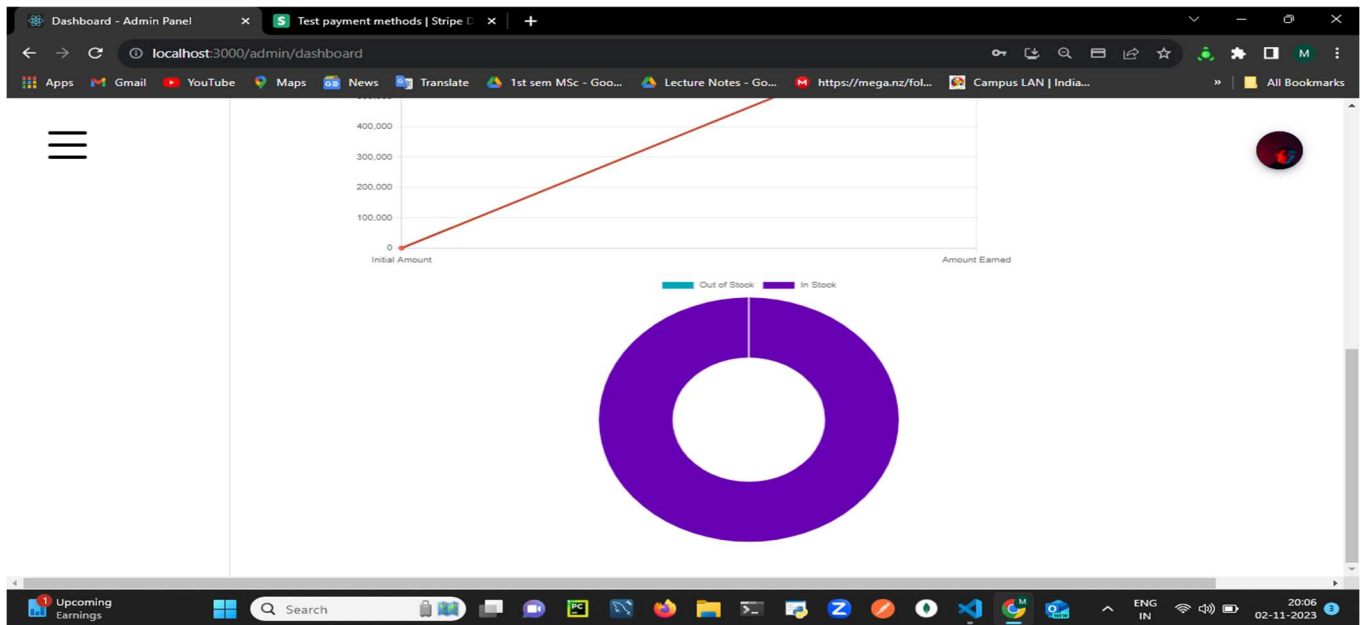
ALL PRODUCTS

| Product ID	Name	Stock	Price	Actions
653aa8b6a36674e8fc582f5d	Samsung Galaxy M14 5G	100	11,990	✎ 🗑
653ab010a36674e8fc5835cd	Tommy Hilfiger Roosevelt 44cm Polyester Overnighter Unisex Trol...	10	4,999	✎ 🗑
653ab0dda36674e8fc583604	Introduction to Formal Languages, Automata Theory and Comput...	15	3,249	✎ 🗑
653ab155a36674e8fc583619	Motorola G84 5G (Viva Magenta, 12GB RAM, 256GB Storage)	8	23,899	✎ 🗑
653ab32aa36674e8fc5836b7	Apple iPhone 13 (128GB) - Blue	15	50,999	✎ 🗑
653ab39aa36674e8fc5836dd	Nikon Z50 Mirrorless Camera with Z DX 16-50mm f/3.5-6.3 VR & ...	5	105,995	✎ 🗑
653ab403a36674e8fc5836f4	OnePlus Nord 3 5G (Misty Green, 8GB RAM, 128GB Storage)	20	33,499	✎ 🗑
653ab48ea36674e8fc58370c	Sony Alpha ILCE-6400M 24.2MP Mirrorless Digital SLR Camera (B...	12	102,969	✎ 🗑
653ab5a1a36674e8fc583730	ASUS Vivobook S 15 2022, Intel Core EVO i5-12500H 12th Gen, 15...	20	56,999	✎ 🗑
653ab65ba36674e8fc58374a	ASUS ROG Strix G16 (2023) 64WHrs Battery, Intel Core i5	4	89,990	✎ 🗑

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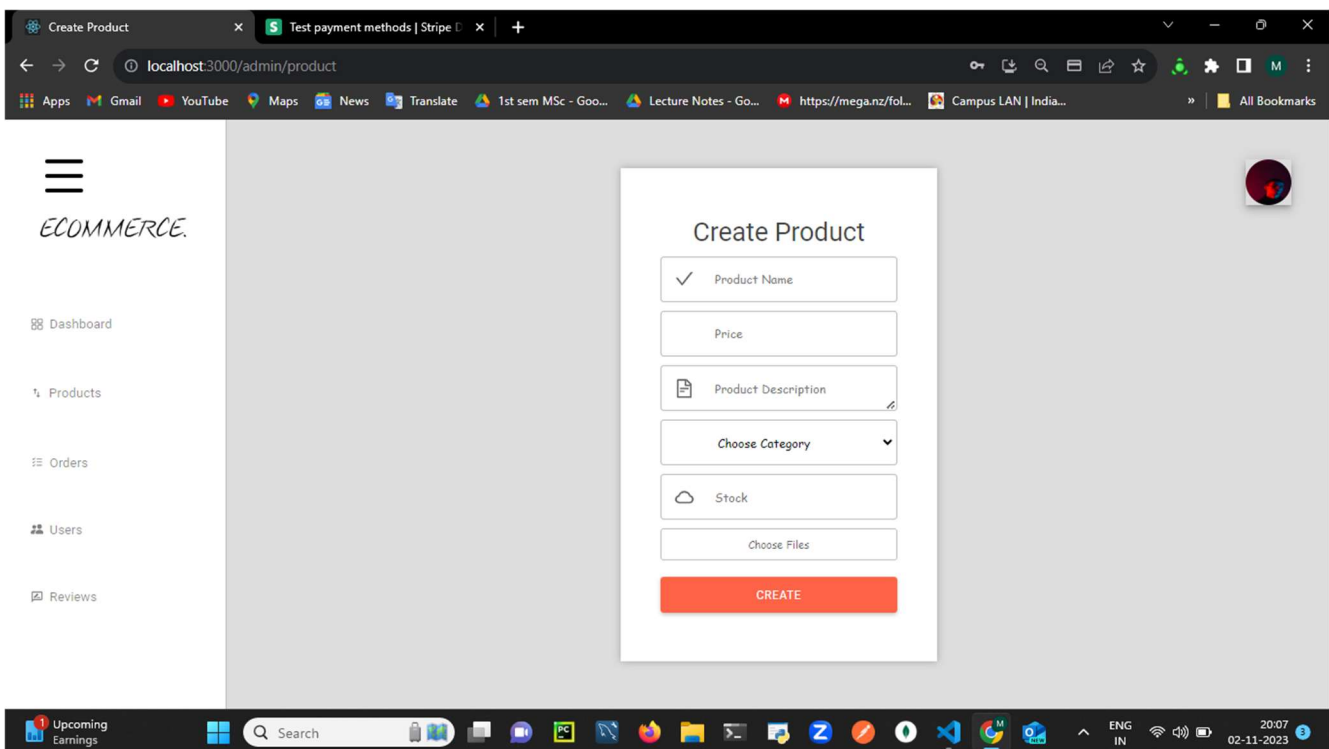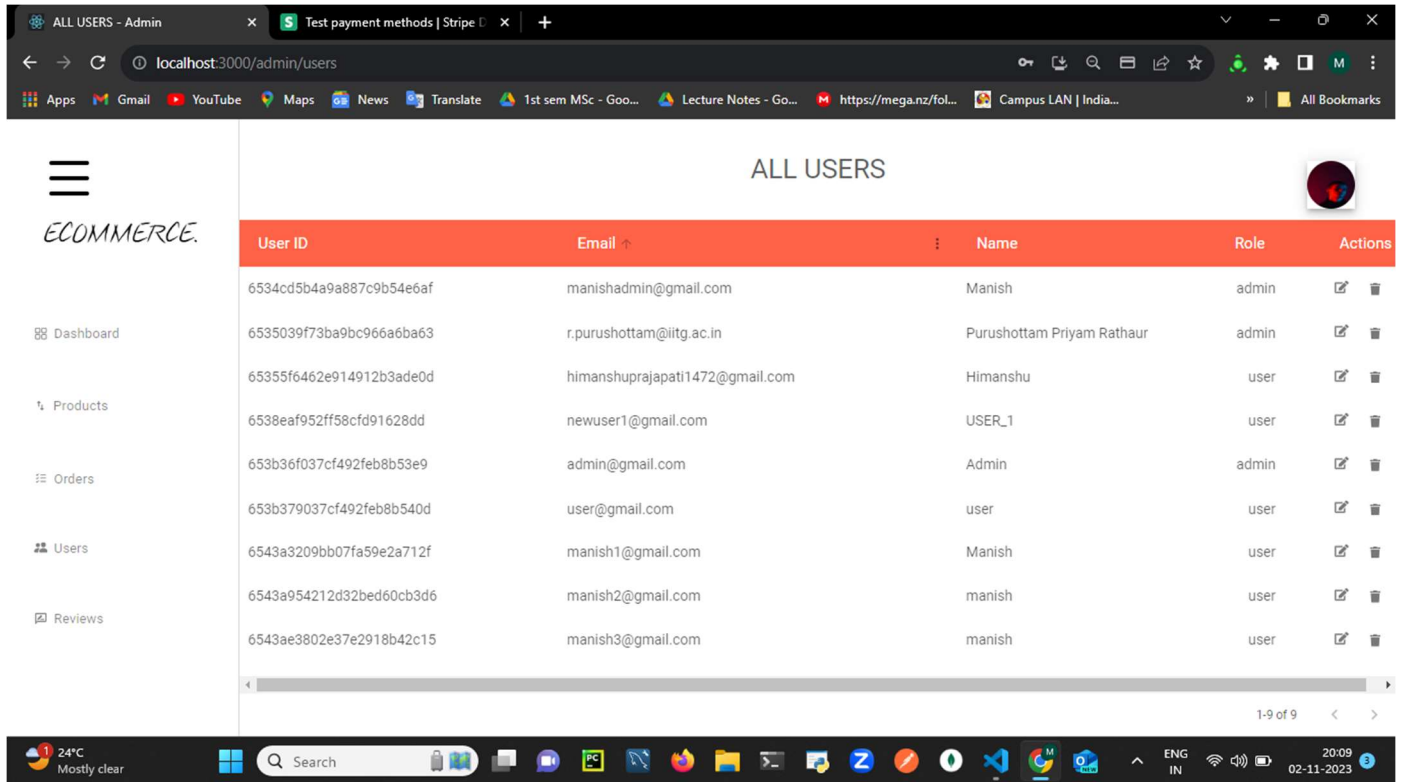
Order Processing Page

1. **Order List:** The admin dashboard displays a list of all incoming orders that need to be processed.
2. **Order Review:** Admins review the order details, including the items, quantities, shipping address, and customer information.
3. **Payment Confirmation:** Admins verify that the payment for the order has been successfully processed.
4. **Stock Availability:** Admins check the availability of the ordered products in the inventory.
5. **Order Status Update:** Admins update the order status to "Processing" to indicate that it is being prepared for shipment.
6. **Order Completion:** After the order is prepared for shipment, the order status is updated to "Shipped" or a similar status, indicating that the order is on its way to the customer.
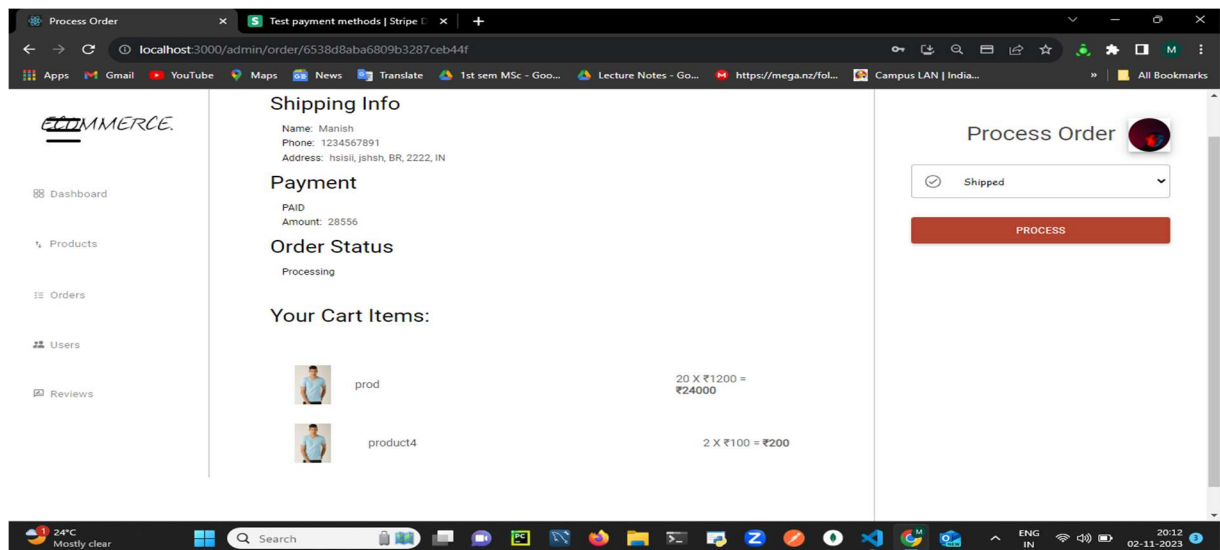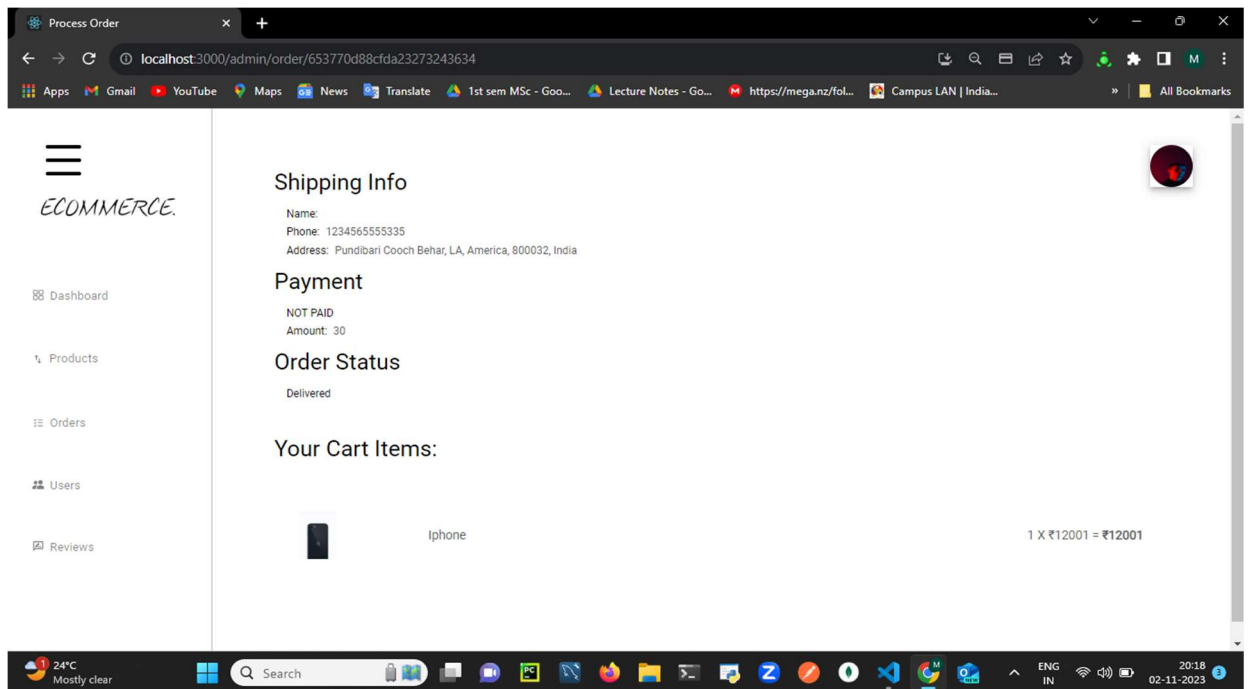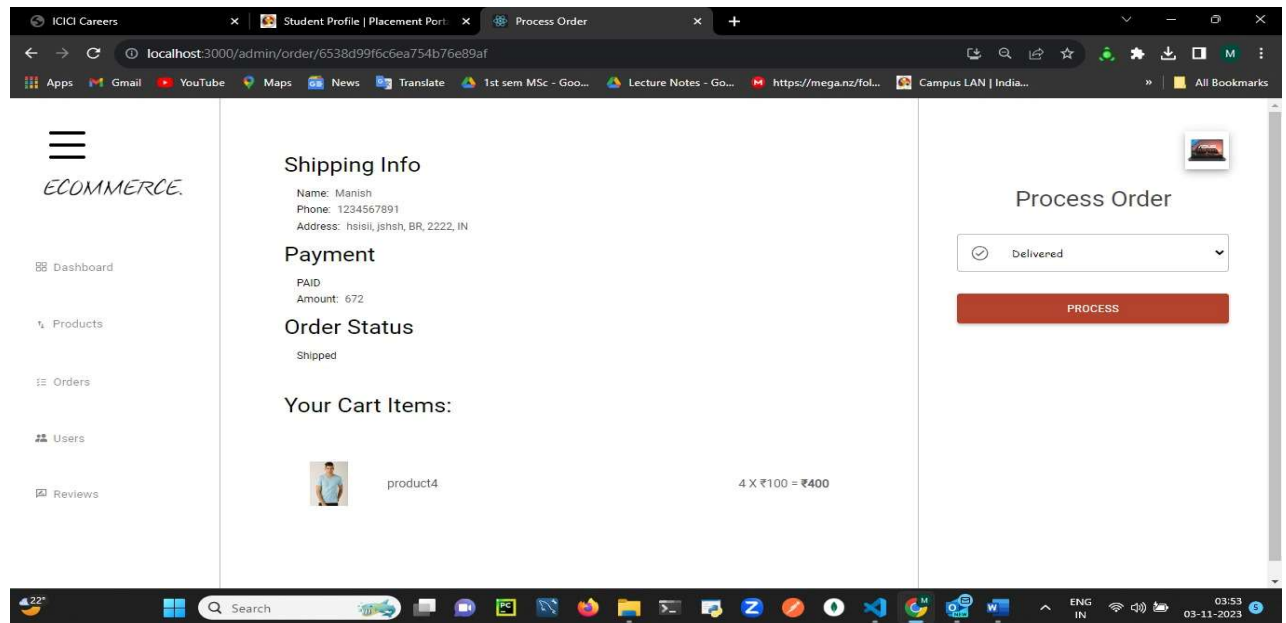
DATABASE
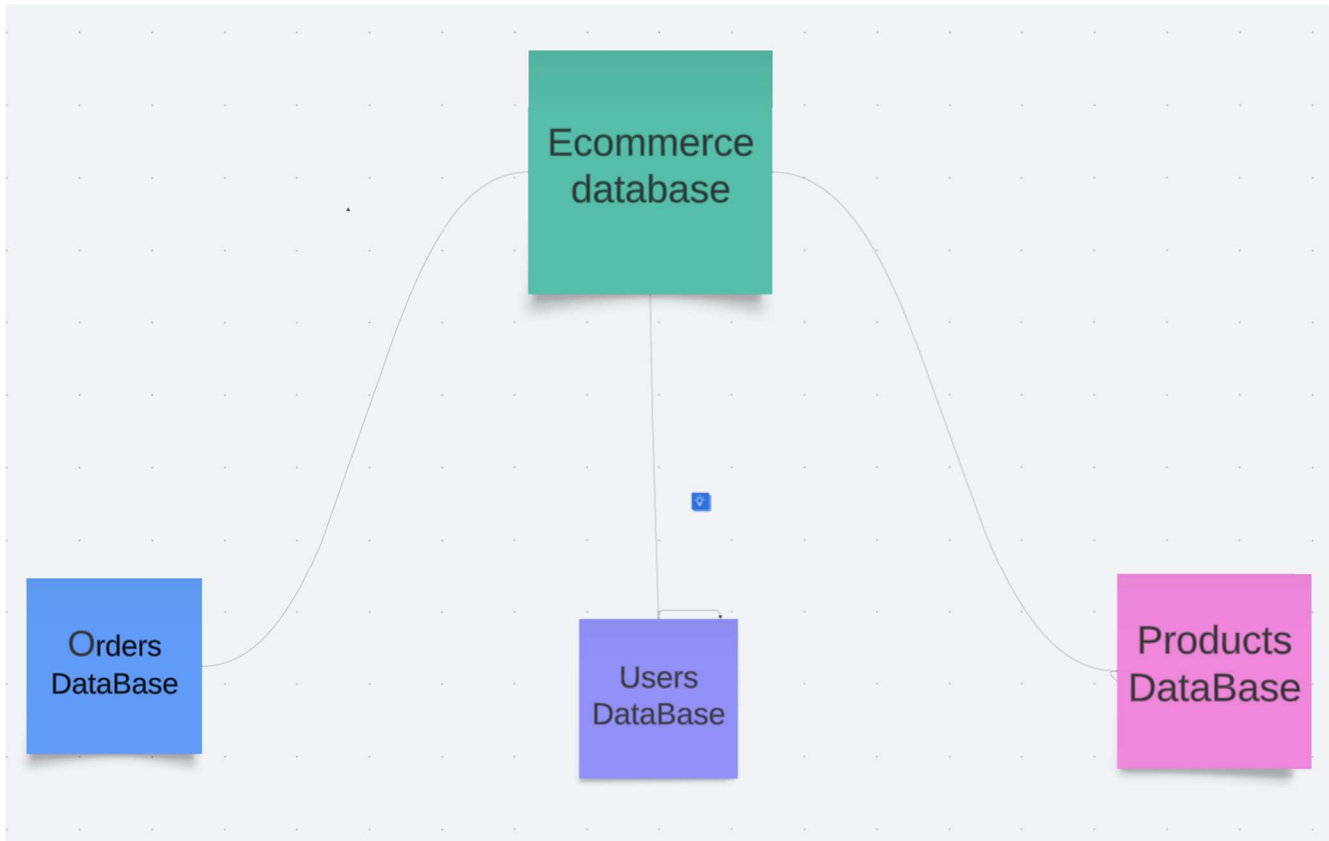
KOM E-commerce Platform Overview:

- **Database Structure:**
    - Parent Database: "ecommerce"
    - Child Databases: "user," "orders," and "products"
- **User Database:**
    - Attributes:
        - "user_id"
        - "name"
        - "email"
        - "password"
        - "avatar"
        - "role"
        - "createdAt"
        - "resetPasswordExpire"
        - "resetPasswordToken"

- Manages customer information and authentication.
- **Orders Database:**
  - Attributes:
    - "id"
    - "shippingInfo"
    - "orderInfo"
    - "userid"
    - "paymentinfo"
    - "paidAt"
    - "itemsPrice"
    - "taxPrice"
    - "shippingPrice"
    - "totalPrice"
    - "orderStatus"
    - "createdAt"
    - "deliveredAt"
  - Focuses on order processing and tracking.
- **Products Database:**
  - Attributes:
    - "product_id"
    - "name"
    - "description"
    - "price"
    - "ratings"
    - "images"
    - "category"
    - "stock"
    - "numOfReviews"
    - "user"
    - "reviews"
    - "createdAt"
  - Stores essential product information.

IKOM E-commerce Features:

- **User Interaction:**
  - Allows users to browse products.
  - Add products to their carts.
  - Place orders.
- **User Management:**
  - Handles user registration and authentication.

- Authorization with different user roles.
- **Security Features:**
  - Robust security system for password resets.
- **Product Details:**
  - Users can view product descriptions, prices, and images.
  - Check product ratings and reviews to make informed purchase decisions.
- **Order Management:**
  - Tracks the order lifecycle, from order placement to delivery.
  - Calculates various pricing components, including items price, tax price, and shipping price.

Respected Kalpesh Sir,

I am excited to present the progress of our e-commerce platform project, IKOM. Over the past few months, our team has diligently worked to build a robust and user-friendly platform. We have successfully implemented a MongoDB NoSQL database structure, comprising three child databases: "user," "orders," and "products." Each database has carefully defined attributes to manage user accounts, order processing, and product listings efficiently. Our platform features user registration, authentication, and authorization, ensuring a secure environment. Users can browse products, access detailed information, and place orders seamlessly. We've also incorporated a strong security system for password resets. As we move forward, we are committed to further enhancements and improvements to deliver an exceptional shopping experience. Your guidance and feedback have been invaluable, and we look forward to your continued support.

Sincerely,
Purushottam P. Rathaur (222123039)
Manish Ray (222123031)