

Phase 5: Project Documentation & Submission

Objective:

The objective of this project is to design, develop, and launch a fully functional e-commerce platform that provides a seamless and user-friendly online shopping experience for customers while enabling efficient product management and order fulfillment for the business.

Design Thinking process:

Some of the design thinking process in our project are,

Platform Design:

We aimed to make it both pretty and easy to use for artisans and customers. The website is divided into different parts, including,

Product Categories: Grid or list view of product categories, Subcategories or filters to narrow down options, Sorting options like price, popularity.

Shopping Cart:

Shopping Cart usually contains list of added items with product details, option to update quantity or remove items.

Checkout:

Customer information form name address, email, phone no, Shipping options, Payment method selection.

Images:

We use high-quality images to show off the products and their details.

Categories: We organize products into logical groups to help customers find what they want.

Development Phases:

1. Planning and Strategy:

- Define the project scope, objectives, and target audience.
- Create a detailed project plan, including timelines, resource allocation, and budget.
- Identify the technology stack, third-party integrations, and payment gateways.

4. Development:

- Build the core features and functionality of the e-commerce platform.
- Implement user registration, product catalog, shopping cart, checkout process, and payment processing.
- Develop product management tools for administrators to add, edit, and delete products.

5. Database Setup:

- Design and implement a robust database structure to store product information, user data, and order history.
- Ensure data security and scalability.

6. Payment Integration:

- Integrate payment gateways to process transactions securely.
- Implement features for handling multiple payment methods and managing refunds.

Platform's layout:

We have design the homepage, product listings, shopping cart and user authentication of homemade e-commerce platform.

We design frontend framework using html and CSS of user interface.

On IBM cloud account we use Db2 for our database.

Features:

- **User Registration and Authentication:**

User account creation with secure authentication.

Social media login options.

- **Payment Processing:**

Integration with various payment gateways (e.g., PayPal, credit cards).

Secure and PCI-compliant transaction handling.

Technical implementation details:

- **Front-End Development:**

Use HTML, CSS, and JavaScript to create the user interface.

Employ responsive design techniques for various screen sizes.

- **Back-End Development:**

Choose a server-side programming language (e.g., Python, Ruby, PHP) and a web framework.

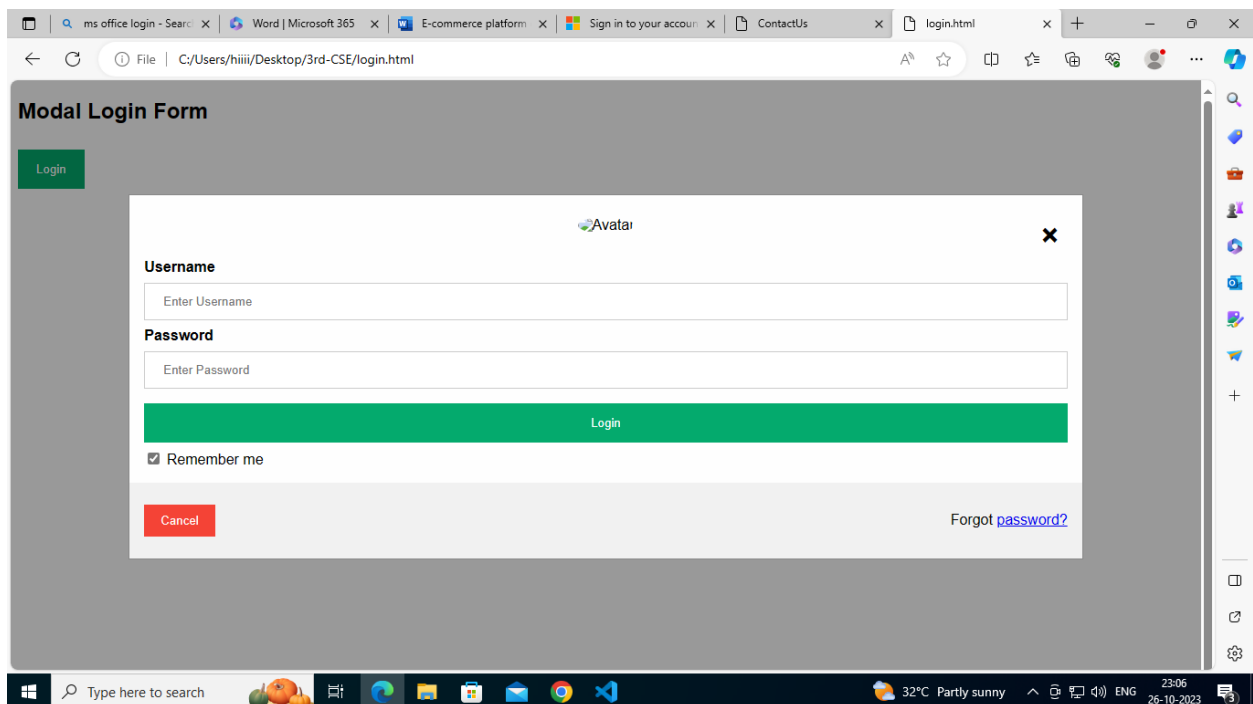
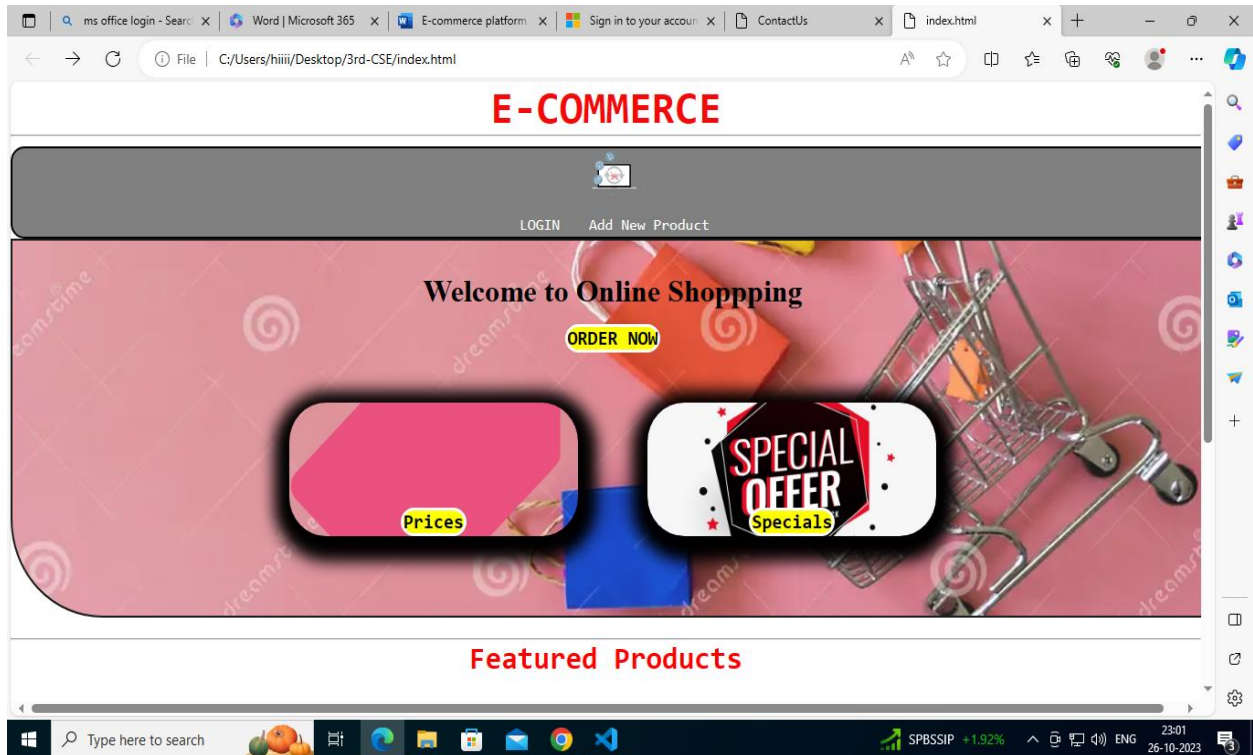
Develop databases to store product and user data.

Implement user authentication and session management.

- **Database Management:**

We setup database using db2 in ibm account.

Following are the screenshots of our platform's user interface.



Deployment Steps:

- **Login to IBM Cloud:** Open your terminal or command prompt and log in to your IBM Cloud account using the following command: `ibmcloud login`
- Follow the prompts to enter your email and password.
- **Target a Cloud Foundry Org and Space:** You need to target the organization and space where you want to deploy your application.
- Select the organization and space from the list provided.

Push Your Application: Navigate to your project directory where your e-commerce platform code is located. Use the following command to push your application to IBM Cloud Foundry: `ibmcloud cf push <app-name>`

Set Environment Variables: Configure environment variables for your application. For an e-commerce platform, you might need to set variables like database connection strings, API keys, and other configuration details.

- Replace **VARIABLE_NAME** with the name of the environment variable and **VARIABLE_VALUE** with the corresponding value.
- **Access Your Application:** Once your application is deployed and running, you can access it by opening a web browser and entering the application's URL.
- **Monitor and Manage:** IBM Cloud provides monitoring and management tools to help you keep your e-commerce platform running smoothly. You can access these tools through the IBM Cloud dashboard.

README technologies and dependencies. Here are some key components and how to manage them:

- **Front-end:** Our website is built using HTML, CSS, and JavaScript. Front-end files are located in the "public" directory. Update these files as needed.
- **Back-end:** The server-side code is written in [Programming Language] using the [Web Framework]. It's found in the "server" directory. Make modifications to the codebase as required.
- **Database:** We use [Database Management System] to store product and user data. Refer to [Database Documentation] for database management.
- **Third-party Services:** Our website integrates with third-party services for payment processing and analytics. Configuration details can be found in the "config" directory.
- **Dependencies:** The list of project dependencies is outlined in the "package.json" file. Use the package manager to install and manage dependencies.