Full Stack Development Program with Generative AI

Foundations of Frontend Development

Phase-End Project

Building an Online Food Ordering Application

Objective

To demonstrate the design, development, and deployment of an Online Food Ordering Application for managing restaurant menus, orders, and user interactions. This project focuses on creating a responsive web-based interface for users to browse food items, place orders, and manage profiles, while administrators handle menu updates and order tracking. The objective is to streamline food ordering processes, improve customer experience, and support operational efficiency for restaurants. This implementation aims to enhance user convenience, reduce manual workload, and promote digital transformation in the food service industry.

PHASE-END PROJECT

Problem Statement and Motivation

Real-time scenario:

In the fast-paced digital marketplace, restaurants and food delivery services must meet growing consumer demand for fast, convenient, and contactless food ordering. Manual ordering systems can lead to inefficiencies, order inaccuracies, and customer dissatisfaction. Customers expect seamless online interfaces that allow them to browse menus, place orders, and make payments effortlessly from any device.

Solution:

The Online Food Ordering Application streamlines the ordering process by allowing users to browse menus, place orders, and make payments online. It minimizes manual errors, improves order accuracy, and speeds up service. Using HTML, CSS, JavaScript, and Bootstrap, the app delivers a responsive, interactive experience that enhances customer satisfaction and operational efficiency.

PHASE-END PROJECT

Industry Relevance

The following tools are widely being used in the industry to design the frontend of a web application:

1. **Git:** It serves as a version control system, allowing developers to track changes, collaborate on different versions of the codebase, and manage updates without overwriting any part of the project.

2. **HTML:** It is used to structure the content on the web pages, laying out the foundation for text, images, and other multimedia elements in the project.

3. **CSS:** It is employed to style and layout the web pages designed with HTML. It controls the visual appearance, from fonts and colors to spacing and responsiveness.

Industry Relevance

4. **JavaScript:** It adds interactivity and dynamic elements to the web pages. It is used for client-side scripting to create responsive, interactive elements for the user interface.

Tasks

The following steps outline the process of developing and testing an Online Food Ordering Application using a local development environment.

1. Set up a remote Git repository on GitHub to manage and track the development of the frontend

2. Use HTML to lay out the structural foundation of the application

3. Apply CSS to style the HTML elements, focusing on visual appeal, layout, and responsiveness

4. Use JavaScript to add dynamic features, such as interactive menus, form validations, real-time updating of cart items, and handling user events

5. Implement AJAX calls for loading menu items or sending data to the server without refreshing the page

Project References

Task 1: Lesson 1

Task 2 and 3: Lesson 2

Task 4 : Lesson 3 and 4

Task 5 : Lesson 5

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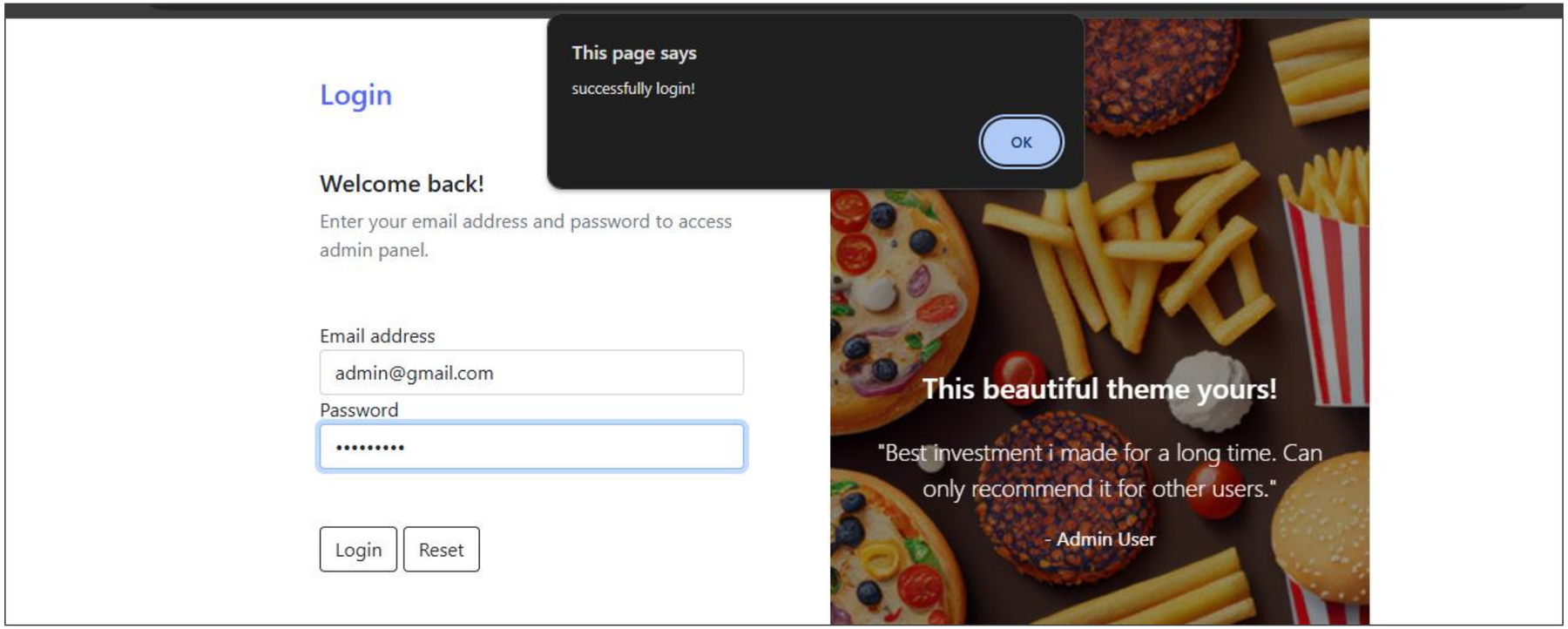
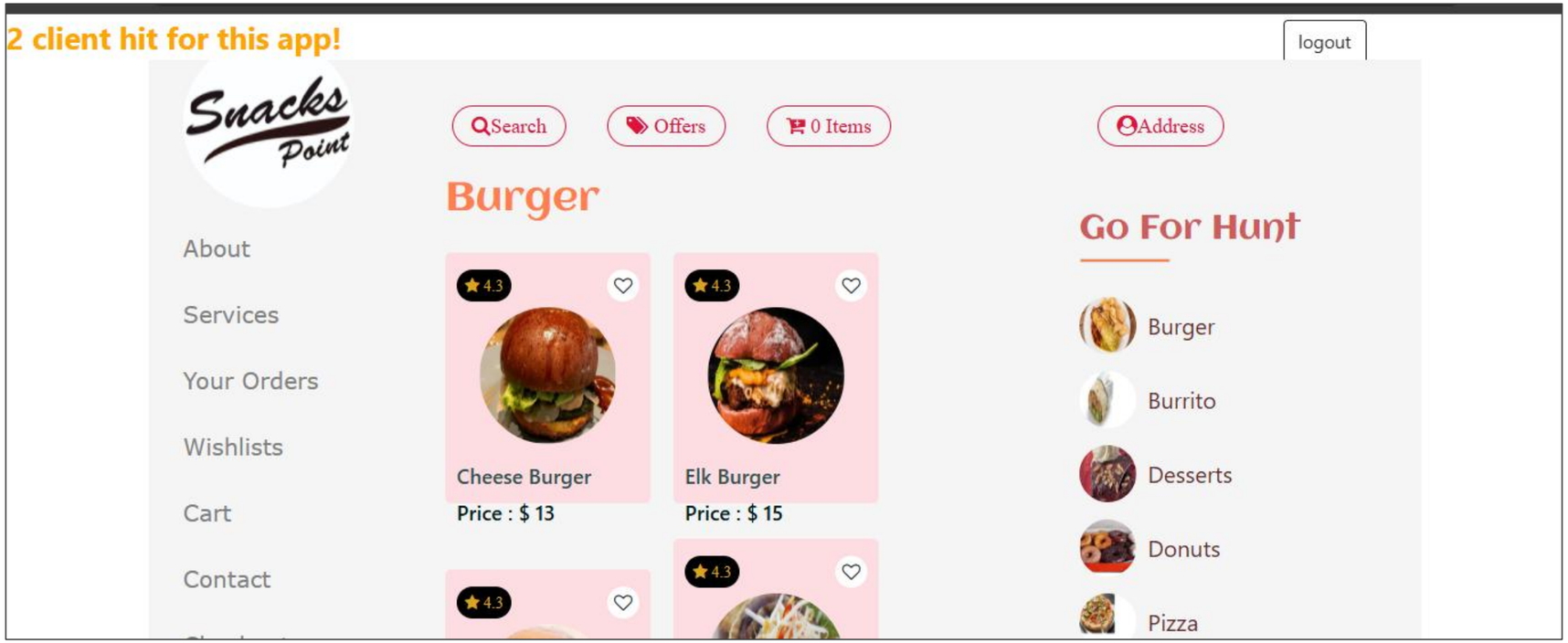
Output Screenshots

Admin Login Page used to authenticate users and grant access to the admin panel:



Output Screenshots

User Dashboard or Menu Page:



Thank you