EATWISE

RESTAURANT MANAGEMENT SYSTEM

PROJECT REPORT

Submitted by

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Under the esteemed guidance of

Mrs. Jincy Showri

In partial fulfilment of the requirements for the award of the degree
of
Bachelor of Technology
in
Computer Science and Engineering
of
APJ Abdul Kalam Technological University

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C E R T I F I C A T E

This is to certify that, the project report titled EATWISE RESTAURANT MANAGEMENT SYSTEM is a bonafide record of the CSL333 Database Management Systems Lab - Project presented by ARAVIND A KAMATH (CEC23CS041), ARJUN MANOJ (CEC23CS043), ANANDHAKRISHNAN S (CEC23CS033), ARAVIND SAJEEV (CEC23CS042), fifth semester B. Tech. Computer Science & Engineering students, under our guidance and supervision, in partial fulfilment of the requirements for the award of the degree, B. Tech. Computer Science & Engineering of APJ Abdul Kalam Technological University

Internal Supervisor	**UG Coordinator & Head of Department**	**External Supervisor**
Mrs. Jincy Showri Assistant Professor Computer Science and Engineering	Mrs. Priya S Professor Computer Science & Engineering	

ACKNOWLEDGEMENT

This work would not have been possible without the support of many people, although not all of them can be mentioned. We wish to express our sincere gratitude to our parents for their love and support.

We would like to thank Dr Jaya V L, our esteemed principal, who has provided us the best facilities for the project completion and presentation. I would also like to thank our Head of Department (HOD), Dr Priya S (Professor, Computer Science & Engineering), our project coordinator Mrs. Jincy Showri (Assistant Professor, Computer Science & Engineering) for the help extended and also for the encouragement and support given to me while working on the project.

We would also like to thank our dear friends for extending their cooperation and encouragement throughout the project work, without which we would never have completed the project this well. Thank you all for your love, support and also for being understanding.

ABSTRACT

In the evolving modern world, technology must be used as a valuable tool to reduce human workload and manual labour. In our project, we have simplified the process of ordering and calculating in restaurant by taking advantage of technology.

In the traditional way, tracking orders, gathering total sum, and other such information proves to be difficult and a bit of hassle. With EatWise, this difficulty is alleviated as it digitalizes this process and it can be performed online. It contains login for both customer and administrator. Customer can order from menu (with quantity), see total/subtotal, delete order. Administrator can modify all the menu items, orders, suborders, user information, reviews.

EatWise method is much more simple and efficient for restaurant management when compared to the traditional way.

CONTENTS

INTRODUCTION

In the traditional way, restaurants manually track orders. There is a lack of centralization. This has a potential to lead to errors such as money sum errors, duplicate orders, mixing orders and more. It is necessary for centralized tracking and management of restaurant orders which uses a single database for all management actions. All the customers and administrators can see the same data in different forms and easily absorbs any changes/modifications and updates it accordingly.

Operations that can be performed:

Admin

- Menu Items - retrieval, addition, deletion, updation
- Order Items (suborder) - retrieval, deletion
- Orders - retrieval, deletion
- Reviews - retrieval, addition, deletion
- Users - retrieval, addition, deletion

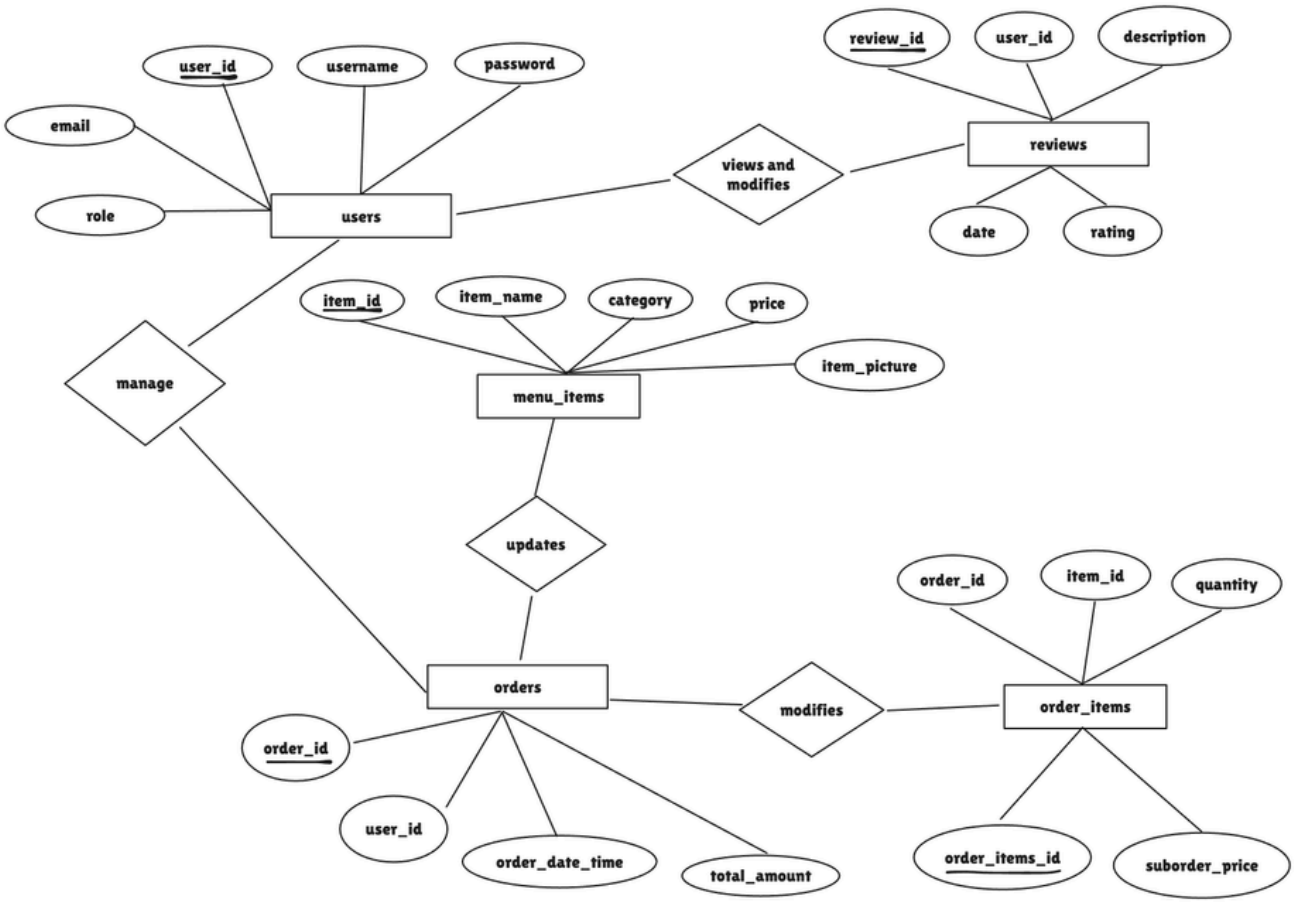
Customer

- Menu Items - retrieval
- Order Items (suborder) - retrieval, addition, deletion
- Reviews - retrieval

DESIGN

2.1 ER Diagram

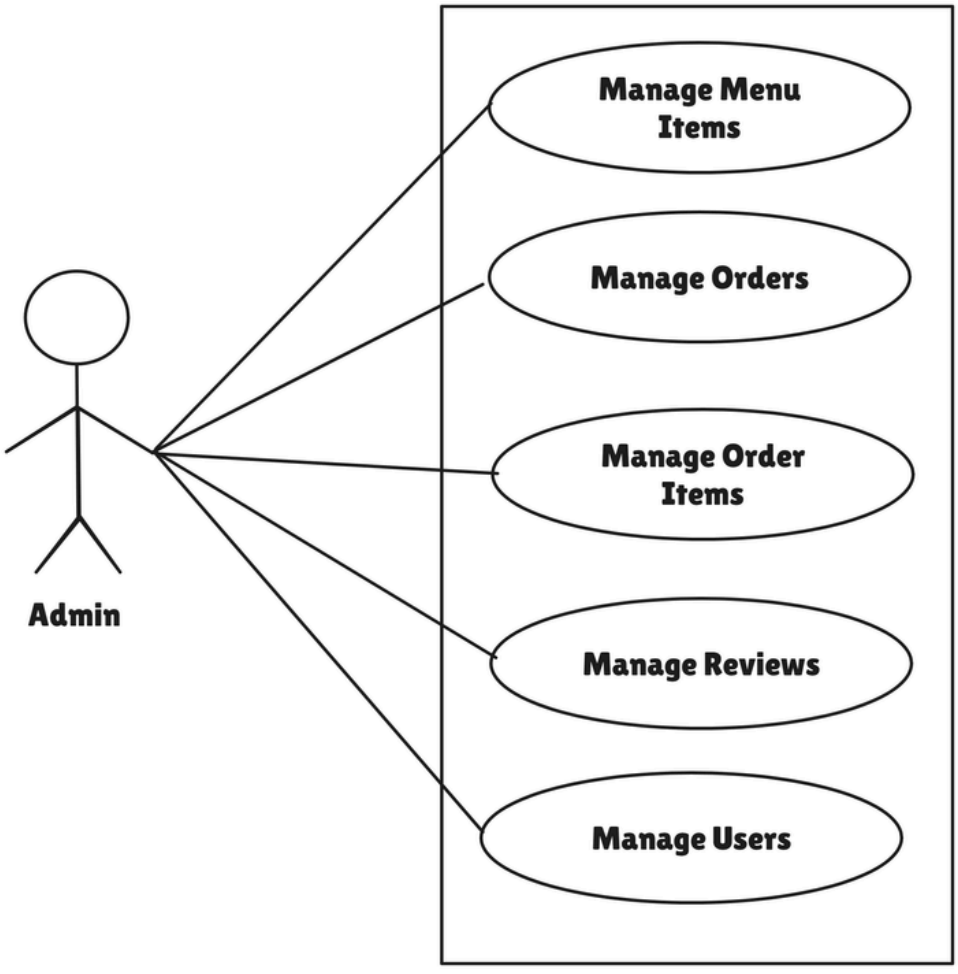
An entity-relationship (ER) diagram is a data-modelling technique that graphically illustrates an information system's entities and the relationships between them.



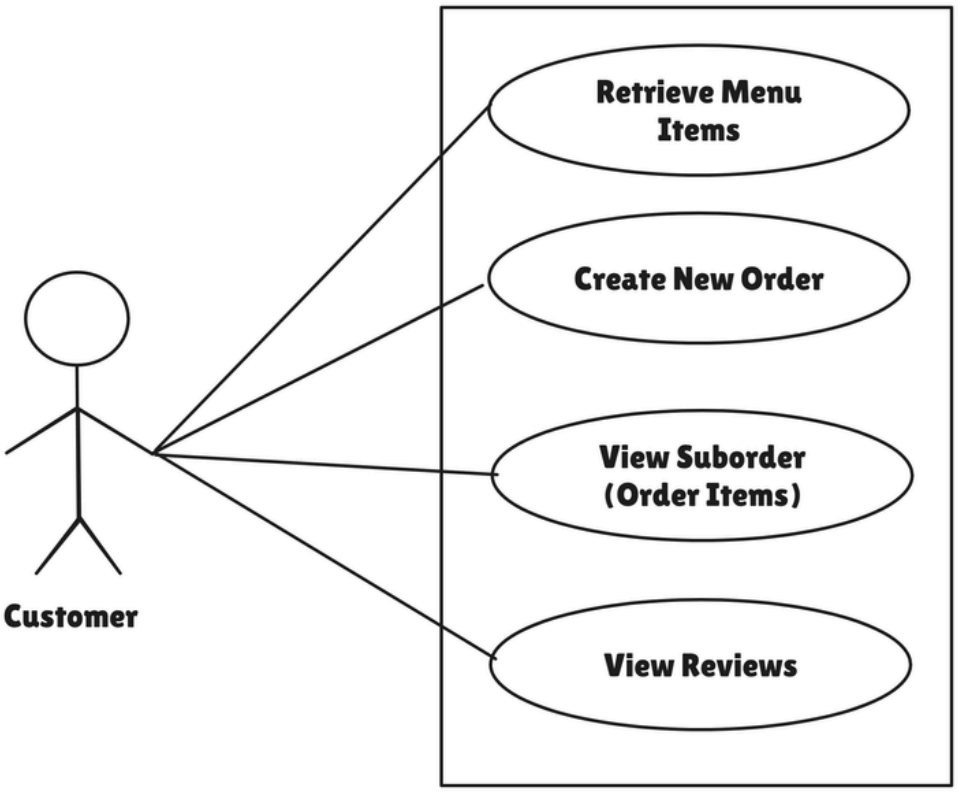
2.2 USECASE DIAGRAM

It is a graphic depiction of the interaction among the elements of EatWise Restaurant Management System

ADMIN

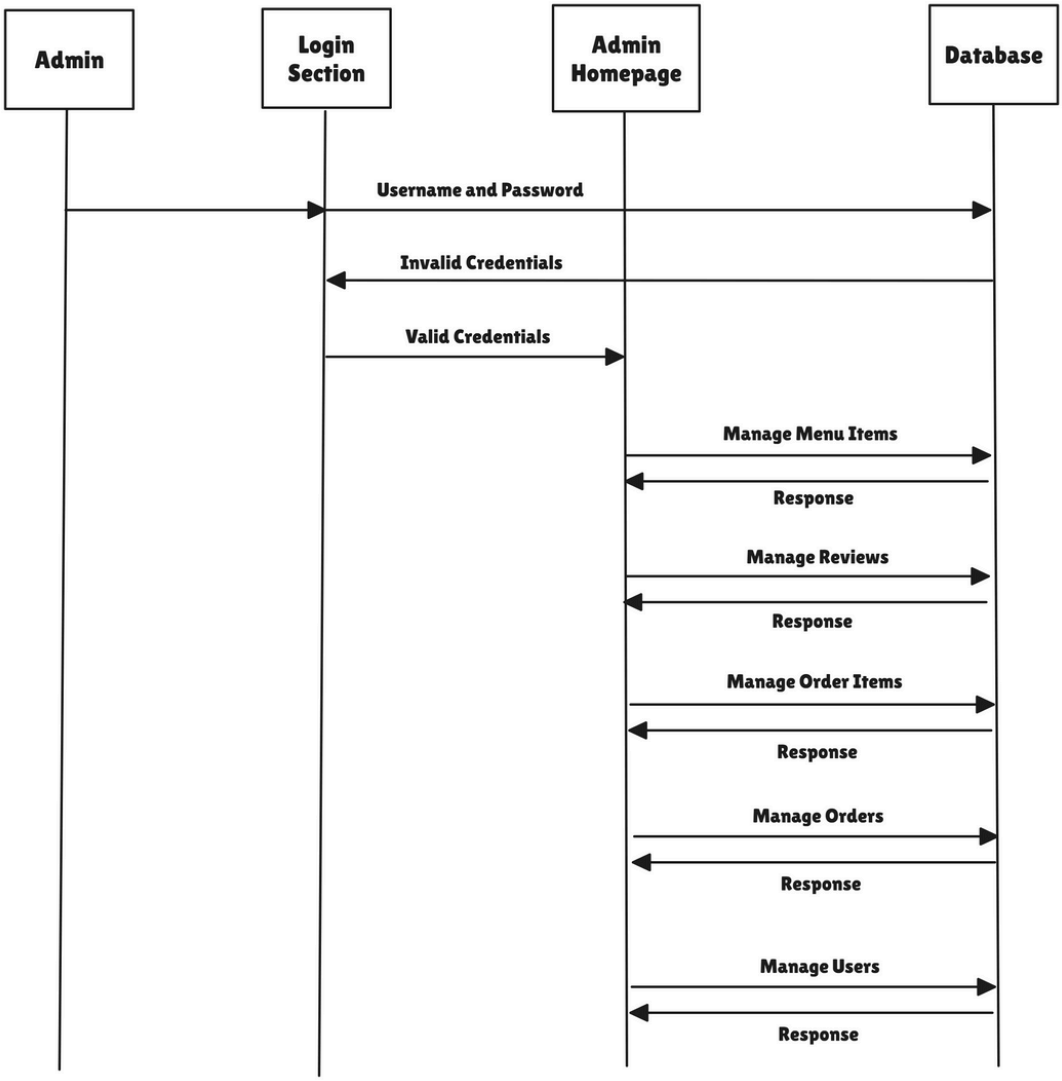


CUSTOMER

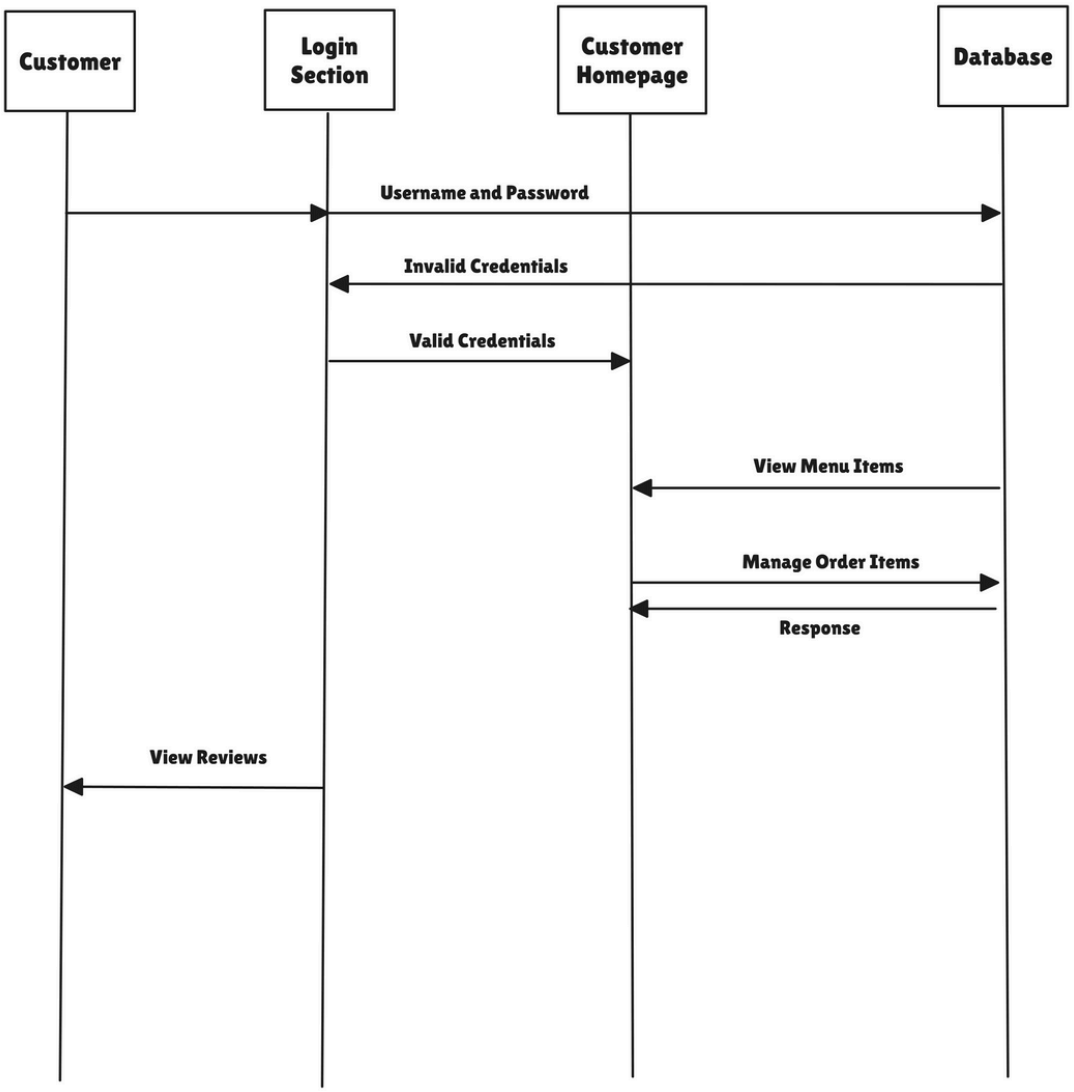

Retrieve Menu Items
Create New Order
View Suborder (Order Items)
View Reviews
Customer

2.3 SEQUENTIAL DIAGRAM

ADMIN



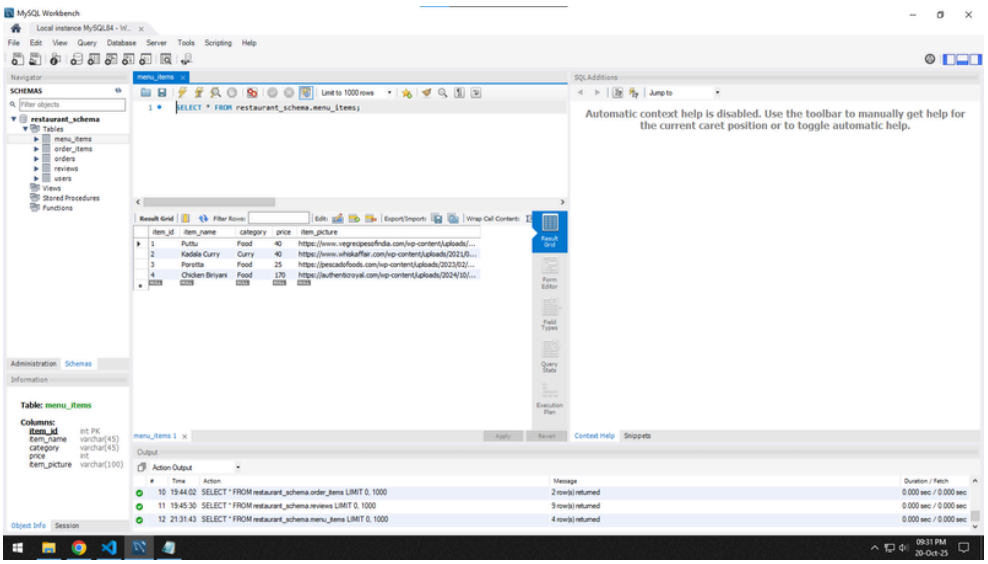
CUSTOMER


Customer
Login Section
Customer Homepage
Database
Username and Password
Invalid Credentials
Valid Credentials
View Menu Items
Manage Order Items
Response
View Reviews

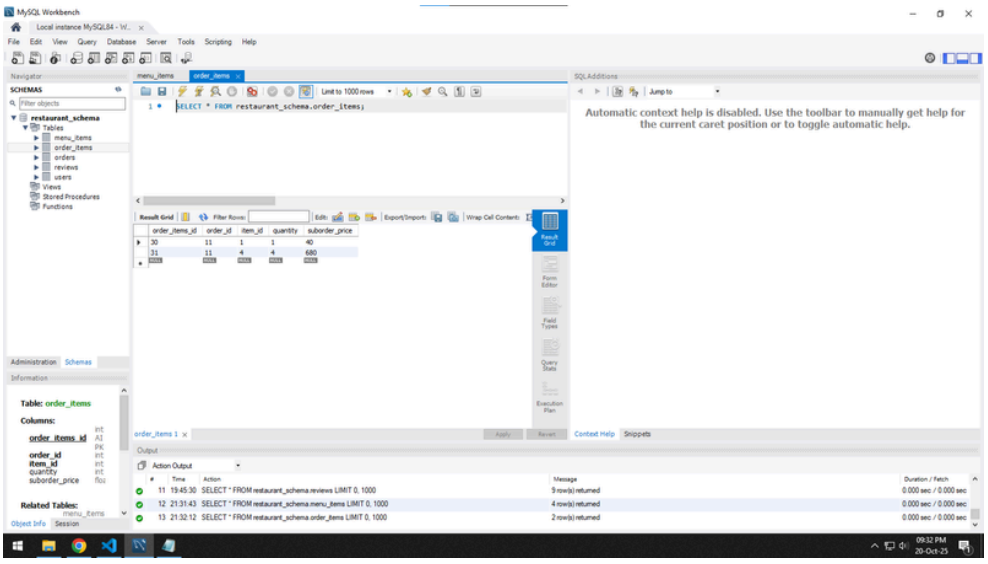
IMPLEMENTATION

3.1 BACKEND

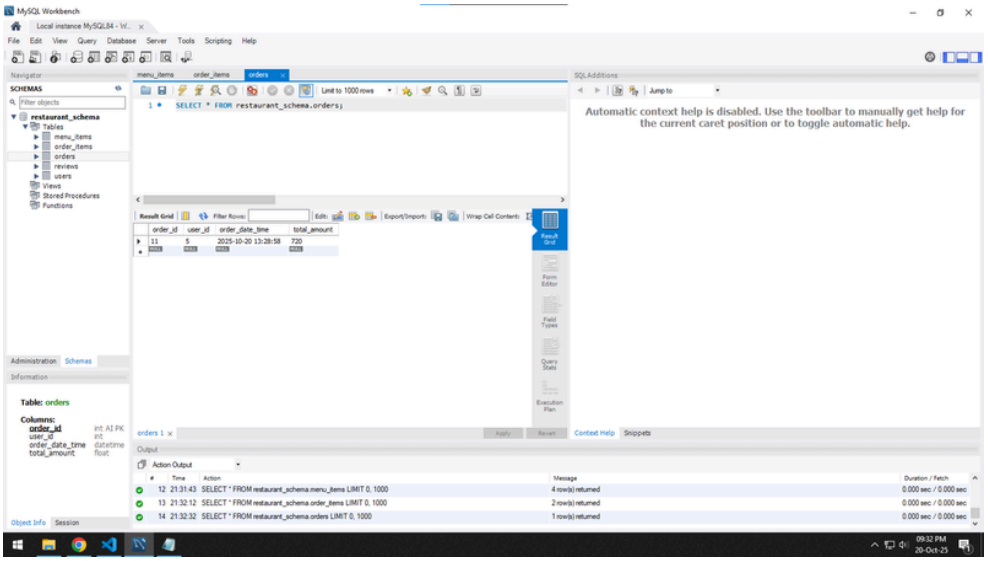
3.1.1 MENU ITEMS



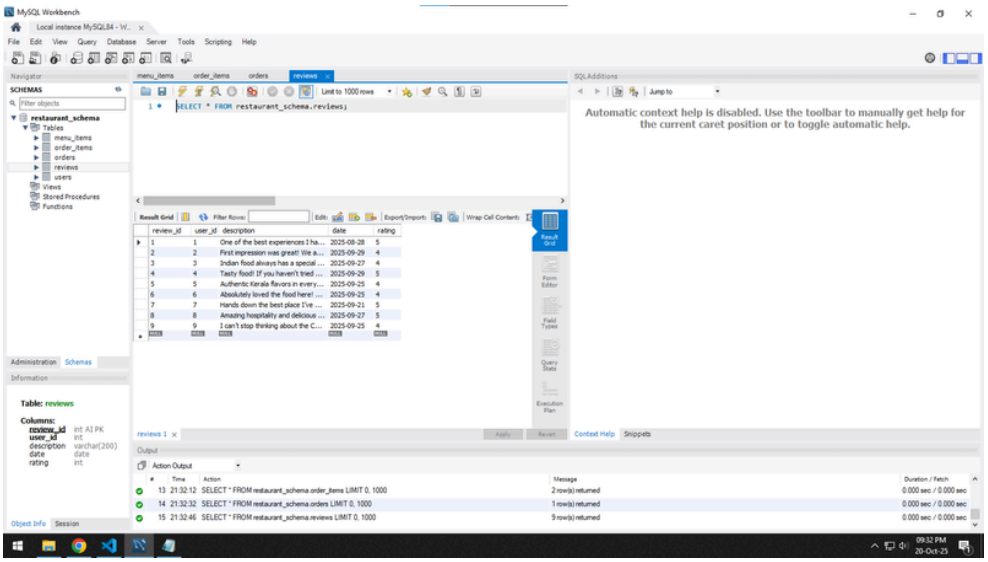
3.1.2 ORDER ITEMS



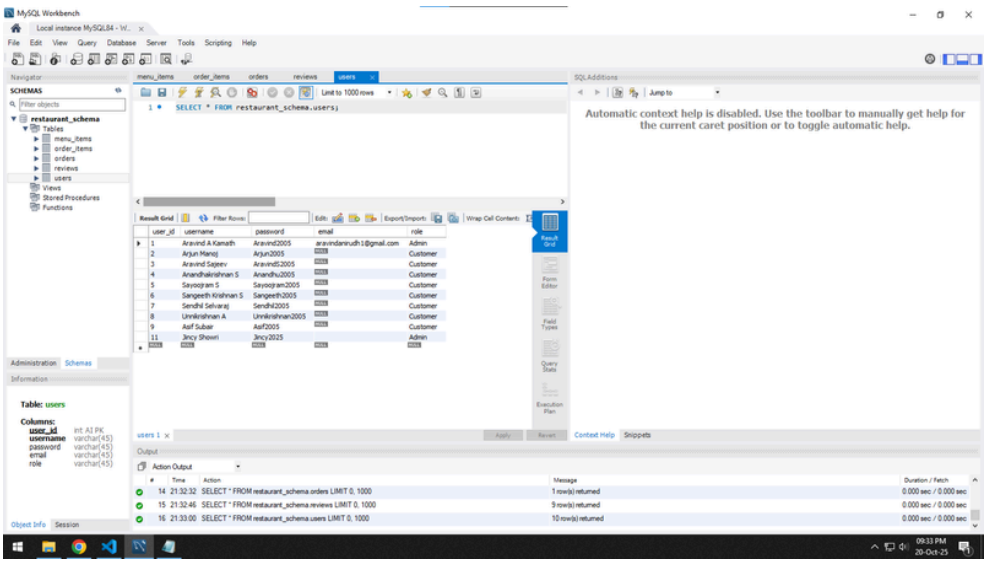
3.1.3 ORDERS



3.1.4 REVIEWS

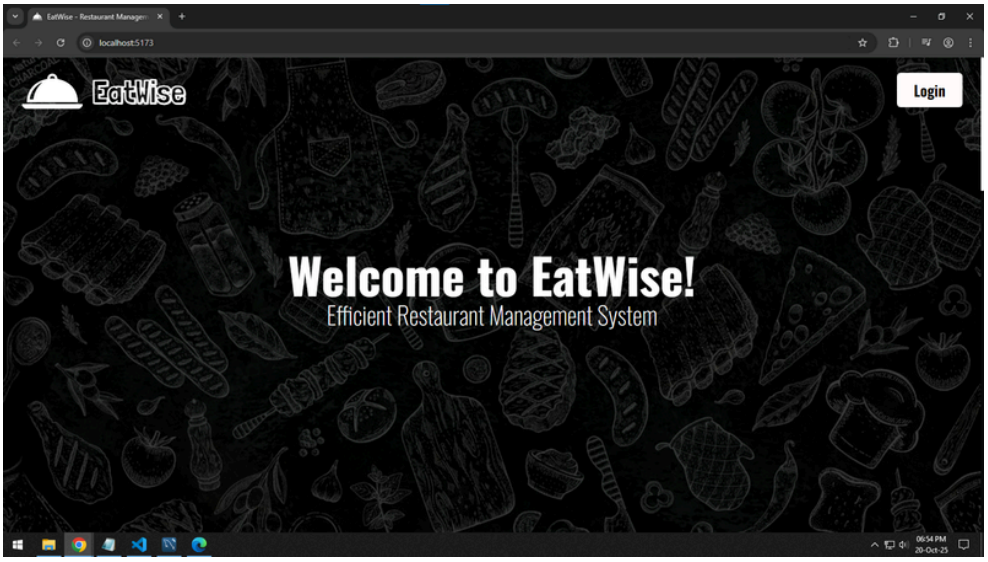


3.1.5 USERS

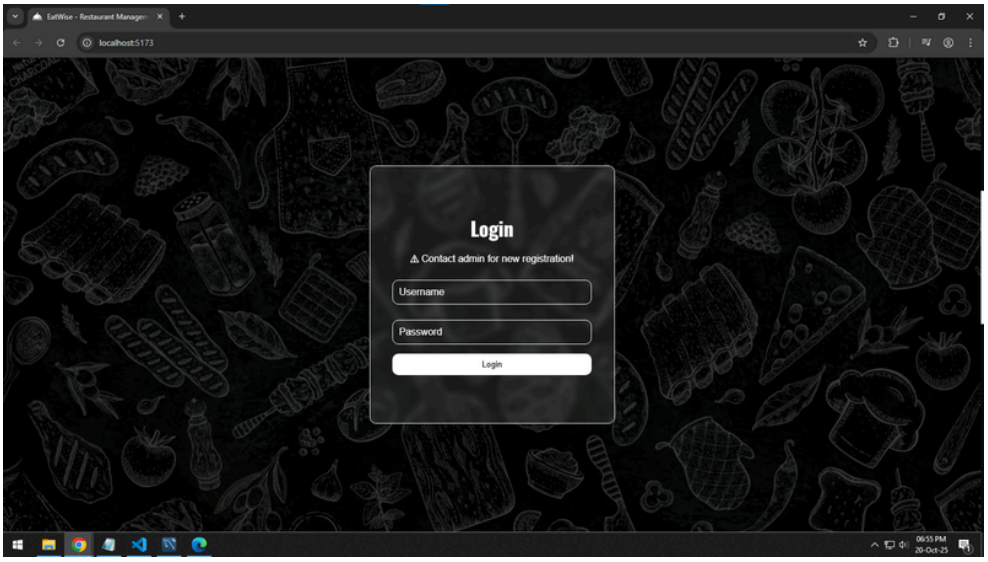


3.2 FRONTEND

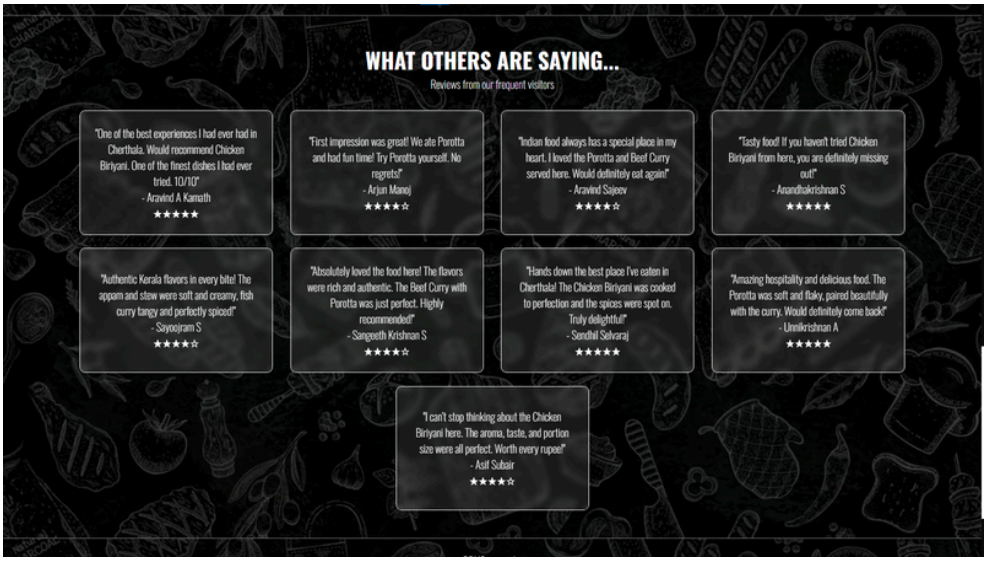
3.2.1 HOME



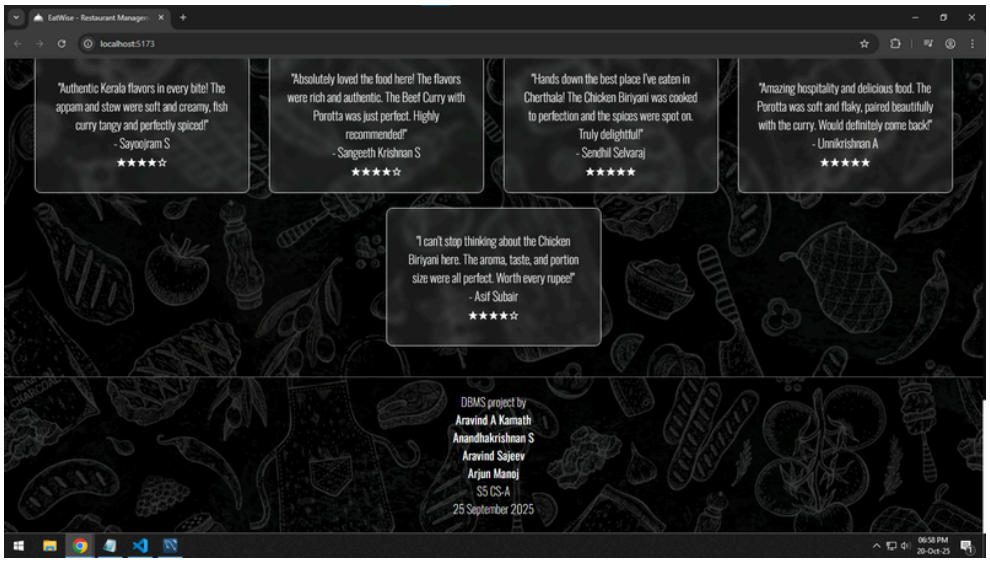
3.2.2 LOGIN



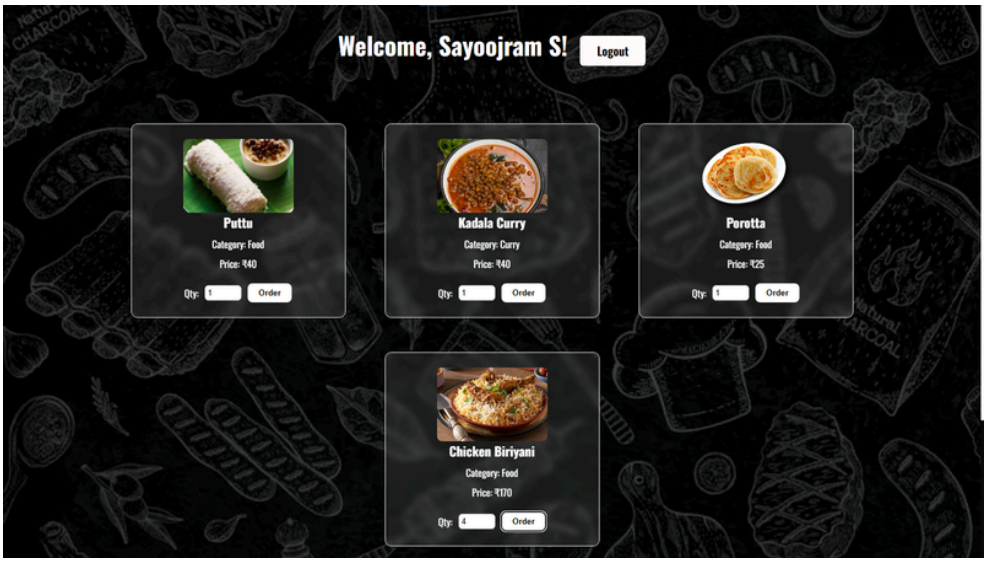
3.2.3 REVIEWS

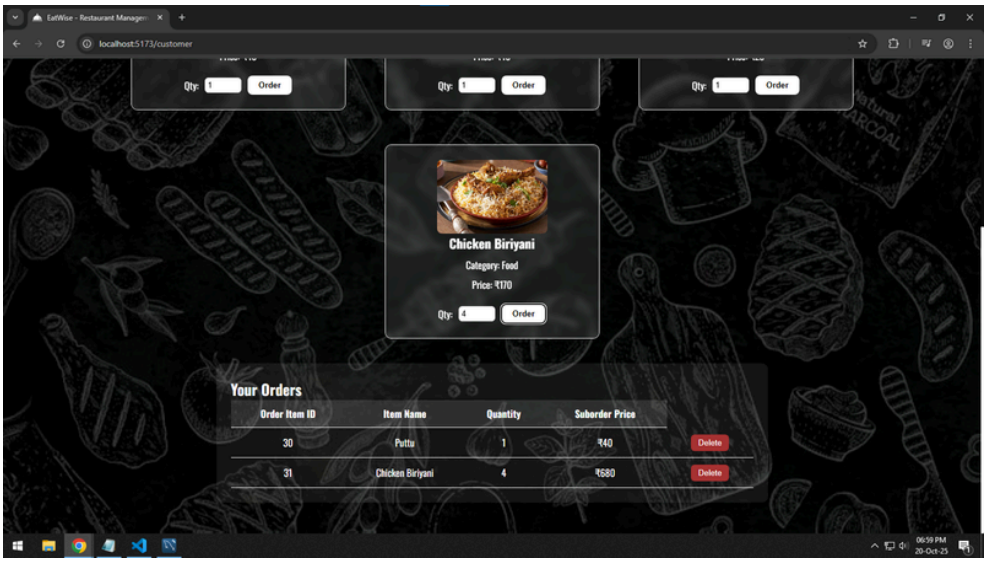


3.2.4 FOOTER

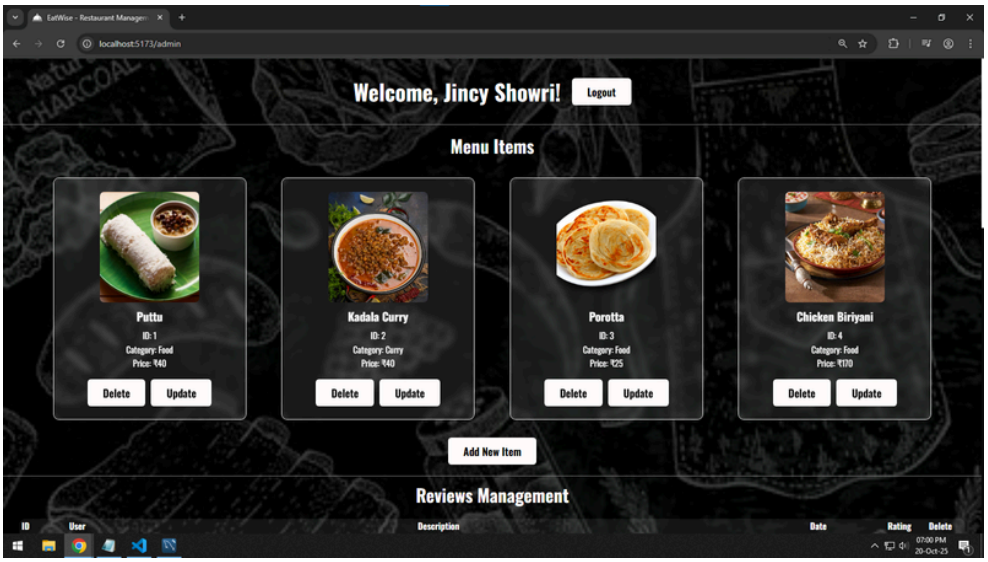


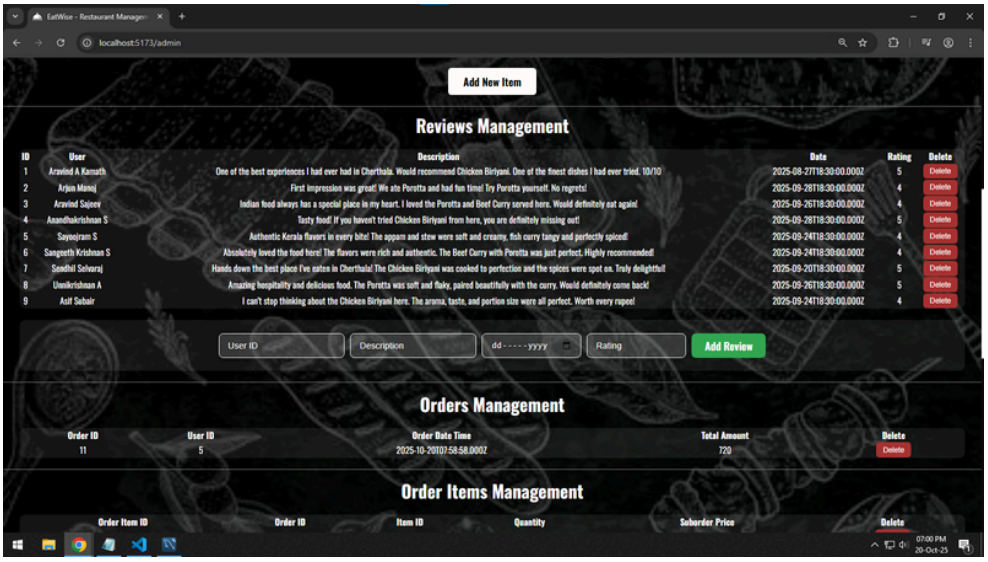
3.2.5 CUSTOMER LOGIN

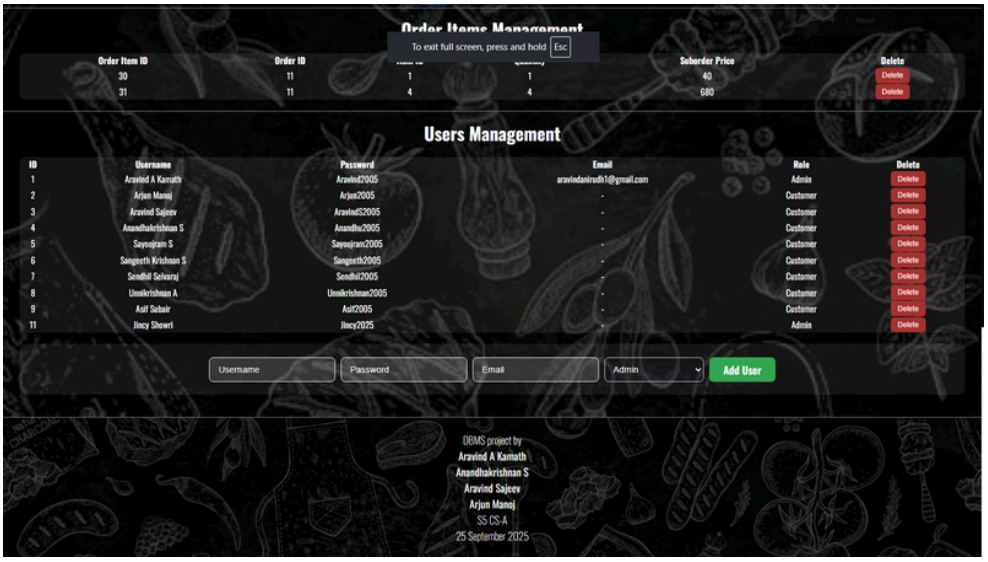




3.2.6 ADMINISTRATOR LOGIN

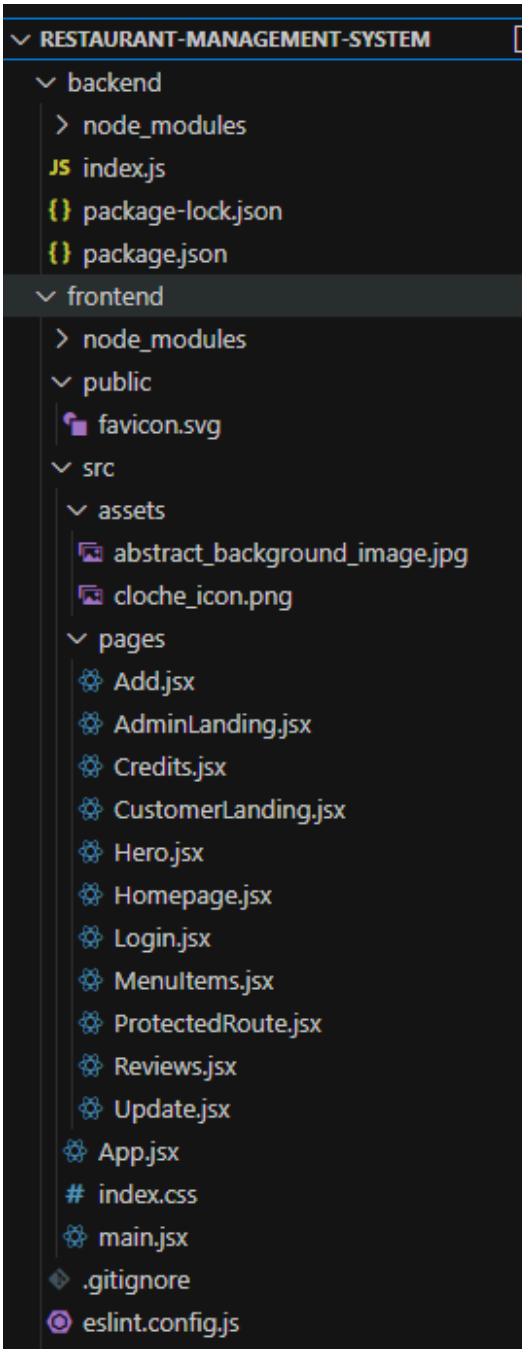


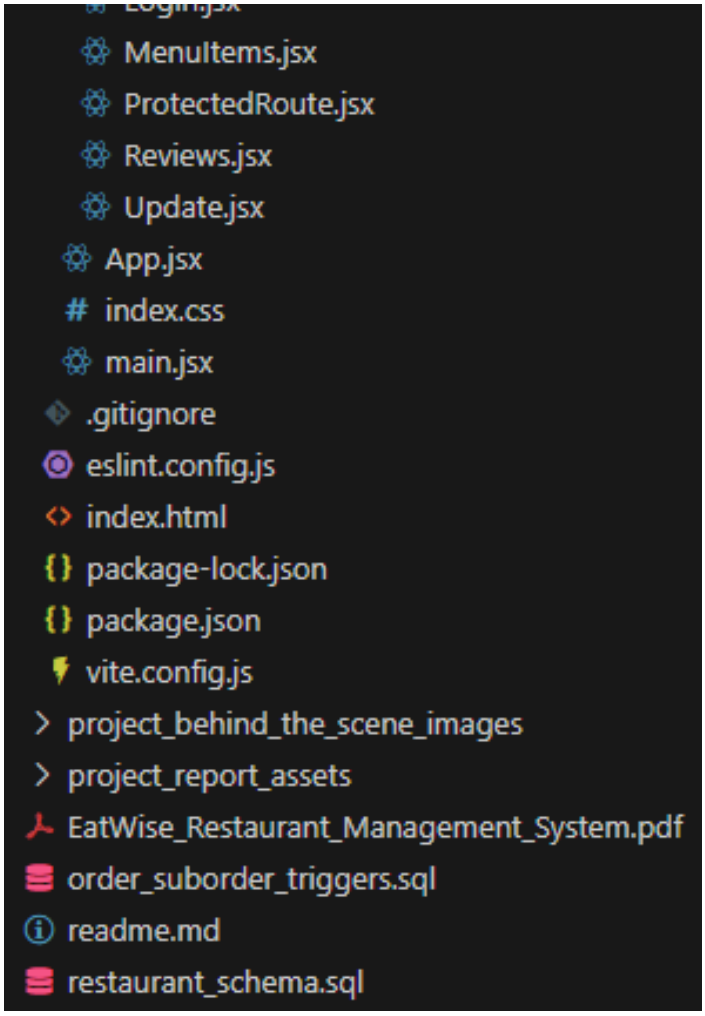




3.3 PROGRAM CODE

PROGRAM FILE STRUCTURE





index.css (single stylesheet for entire website)

```
/* Reset default styles */
* {
 margin: 0;
 padding: 0;
 box-sizing: border-box;
}

/* General styles */
html {
 scroll-behavior: smooth;
}

::-webkit-scrollbar {
 width: 5px;
}

::-webkit-scrollbar-track {
 background-color: rgb(11, 11, 11);
}

::-webkit-scrollbar-thumb {
 background-color: hsl(0, 0%, 100%);
 border-radius: 1px;
}

a {
 color: inherit;
 text-decoration: none;
}

/* Homepage */
.page-background {
 background-color: #181818;
 height: 100vh;
 color: white;
 background-image: url("./assets/abstract_background_image.jpg");
 background-size: cover;
 position: relative;
}

.navbar {
 display: flex;
 flex-direction: row;
 padding: 25px 30px 25px 30px;
 gap: 10px;
 justify-content: space-between;
}

.logo-div h1 {
 font-family: "Londrina Shadow", sans-serif;
 color: white;
 font-size: 3.25rem;
}

.logo-img {
 width: 100px;
}

.logo-div {
 display: flex;
 flex-direction: row;
 align-items: center;
 justify-content: center;
 gap: 1rem;
}

.navbar button {
 background-color: #fffdfd;
 border: none;
 color: black;
 border-radius: 6px;
 padding: 10px 28px;
 font-family: "Oswald", sans-serif;
 font-size: 1.5rem;
 font-weight: 600;
 transition: all 0.3s ease;
 cursor: pointer;
}

.navbar button:hover {
 background-color: #929292;
}

.hero-text {
 font-family: "Oswald", sans-serif;
 text-align: center;
 position: absolute;
 font-size: 2.5rem;
 top: 50%;
 left: 50%;
 transform: translate(-50%, -50%);
 width: 100%;
 z-index: 1;
 line-height: 4.1rem;
}

.hero-text p {
 font-weight: 200;
}

/* Login Page */
.login-section {
 margin: 0;
 display: flex;
 justify-content: center;
 align-items: center;
 height: 100vh;
 background-size: cover;
 background-image: url("./assets/abstract_background_image.jpg");
}

.glass-container {
 width: 400px;
 height: 420px;
 position: relative;
 display: flex;
 align-items: center;
 justify-content: center;
 z-index: 1;
 background: rgba(255, 255, 255, 0.1);
 box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
 border-radius: 10px;
 border: 1px solid #fff;
}

.glass-container::before {
 content: "";
 position: absolute;
 width: 100%;
 height: 100%;
 border-radius: 10px;
 backdrop-filter: blur(5px);
 -webkit-backdrop-filter: blur(5px);
 z-index: -1;
}

.login-box {
 width: 325px;
 margin: 0 auto;
 text-align: center;
 margin: 0;
}

.login-section h2 {
 font-size: 2rem;
 color: #fff;
```

```
 font-family: "Oswald", sans-serif;
}

.login-section form {
 display: flex;
flex-direction: column;
}

.login-section input {
 padding: 10px;
 margin-top: 25px;
 border: none;
 border-radius: 10px;
 background: transparent;
 border: 1px solid #fff;
 color: #fff;
 font-size: 1rem;
 width: 100%;
}

.login-section input::placeholder {
 color: #fff;
}

.login-section input:focus {
 outline: none;
}

.login-section button {
 background: #fff;
 color: black;
 padding: 10px;
 border: none;
 border-radius: 10px;
 cursor: pointer;
 margin-top: 15px;
 transition: all 0.3s ease;
}

.login-section button:hover {
 background: transparent;
 color: white;
 outline: 1px solid #fff;
}

.login-section p {
 font-family: 'Poppins', sans-serif;
 color: #fff;
 margin-top: 15px;
}

/* Reviews Section */
.reviews-section {
  color: white;
  display: flex;
  flex-direction: column;
  font-family: 'Oswald', sans-serif;
  padding: 50px 20px;
  background-size: cover;
  background-image: url("./assets/abstract_background_image.jpg");
}

.reviews-section h2 {
  text-align: center;
  font-size: 2.5rem;
}

.reviews-section p {
  text-align: center;
  font-size: 1.25rem;
  font-weight: 200;
}

.reviews-container {
  margin-top: 10px;
  display: flex;
  flex-wrap: wrap;
  align-items: center;
justify-content: center;
 text-align: center;
}

.review-card {
 width: 350px;
 height: 225px;
 position: relative;
 display: flex;
 flex-direction: column;
 align-items: center;
 justify-content: center;
 z-index: 1;
 background: rgba(255, 255, 255, 0.1);
 box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
 border-radius: 10px;
 border: 1px solid #fff;
 padding: 20px 25px;
 margin: 1.5rem 1rem 0 1rem;
}

.review-card::before {
 content: "";
 position: absolute;
 width: 100%;
 height: 100%;
 border-radius: 10px;
 backdrop-filter: blur(5px);
 -webkit-backdrop-filter: blur(5px);
 z-index: -1;
}

/* Credits Section */
.credits-section {
 color: white;
 display: flex;
 flex-direction: column;
 font-family: 'Oswald', sans-serif;
 padding: 25px 20px;
 font-size: 1.2rem;
 background-size: cover;
 background-image: url("./assets/abstract_background_image.jpg");
 text-align: center;
}

.light-emphasis {
 font-weight: 200;
}

/* Customer Landing Page */
.customer-landing-section {
 color: white;
 font-family: 'Oswald', sans-serif;
 padding-bottom: 50px;
 min-height: 100vh;
 background-size: cover;
 background-image: url("./assets/abstract_background_image.jpg");
}

.customer-landing-section-header {
 display: flex;
 gap: 20px;
 align-items: center;
 justify-content: center;
 padding: 30px 0;
}

.customer-landing-section-header h2 {
 font-size: 2.5rem;
}

.customer-landing-section-header button {
 background-color: #fffdfd;
 border: none;
 color: black;
 border-radius: 6px;
 padding: 10px 28px;
 font-family: "Oswald", sans-serif;
```

```
font-size: 1.2rem;
 font-weight: 600;
 transition: all 0.3s ease;
 cursor: pointer;
}

.customer-landing-section-header button:hover {
 background-color: #929292;
}

.menu-items-container {
 display: flex;
 flex-wrap: wrap;
 justify-content: center;
 align-items: flex-start;
 gap: 2rem;
 margin: 40px 0;
}

.text-aligner {
 text-align: center;
}

.font-changer {
 font-family: 'Oswald', sans-serif;
 font-size: 1.2rem;
}

.menu-item-card {
 width: 350px;
 position: relative;
 display: flex;
 flex-direction: column;
 align-items: center;
 justify-content: flex-start;
 z-index: 1;
 background: rgba(255, 255, 255, 0.1);
 box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
 border-radius: 10px;
 border: 1px solid #fff;
 padding: 24px 20px;
 margin: 1.5rem 1rem 0 1rem;
}

.menu-item-card::before {
 content: "";
 position: absolute;
 top: 0;
 left: 0;
 width: 100%;
 height: 100%;
 border-radius: 10px;
 backdrop-filter: blur(5px);
 -webkit-backdrop-filter: blur(5px);
 z-index: -1;
}

.menu-item-card img {
 width: 180px;
 height: 120px;
 object-fit: cover;
 border-radius: 8px;
}

.menu-item-card h3 {
 font-size: 1.3rem;
 margin-bottom: 8px;
}

.menu-item-card p {
 font-size: 1rem;
 margin-bottom: 8px;
}

.menu-item-actions {
 display: flex;
 align-items: center;
 gap: 10px;
 margin-top: 12px;
}

.menu-item-card button {
 background: #fff;
 color: black;
 padding: 8px 18px;
 border: none;
 border-radius: 8px;
 cursor: pointer;
 font-weight: 600;
 transition: all 0.2s;
}

.menu-item-card button:hover {
 background: #929292;
 color: white;
}

.order-items-container {
 margin: 40px auto 0 auto;
 max-width: 900px;
 background: rgba(255,255,255,0.08);
 border-radius: 10px;
 box-shadow: 0 2px 8px rgba(0,0,0,0.08);
 padding: 24px;
 min-height: 120px;
 max-height: 400px;
 overflow-y: auto;
 color: white;
 position: relative;
}

.order-items-table {
 width: 100%;
 border-collapse: collapse;
 color: white;
 background: transparent;
}

.order-items-table th, .order-items-table td {
 padding: 10px;
 border-bottom: 1px solid #fff;
 text-align: center;
}

.order-items-table th {
 background: rgba(255,255,255,0.12);
}

/* Admin Landing Page */
.admin-landing-section {
 color: white;
 font-family: 'Oswald', sans-serif;
 padding-bottom: 20px;
 min-height: 100vh;
 background-size: cover;
 background-image: url("./assets/abstract_background_image.jpg");
}

.admin-landing-section-header {
 display: flex;
 gap: 20px;
 align-items: center;
 justify-content: center;
 padding: 30px 0;
}

.admin-landing-section-header h2 {
 font-size: 2.5rem;
}

.admin-landing-section-header button {
 background-color: #fffdfd;
 border: none;
 color: black;
 border-radius: 6px;
 padding: 10px 28px;
```

```
font-family: "Oswald", sans-serif;
 font-size: 1.2rem;
 font-weight: 600;
 transition: all 0.3s ease;
 cursor: pointer;
}

.admin-landing-section-header button:hover {
 background-color: #929292;
}

.admin-menu-items-container {
 display: flex;
 flex-wrap: wrap;
 justify-content: center;
 align-items: flex-start;
 gap: 2rem;
 margin: 10px 0;
}

.admin-menu-item-card {
 width: 350px;
 position: relative;
 display: flex;
 flex-direction: column;
 align-items: center;
 justify-content: flex-start;
 z-index: 1;
 background: rgba(255, 255, 255, 0.1);
 box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
 border-radius: 10px;
 border: 1px solid #fff;
 padding: 24px 20px;
 margin: 1.5rem 1rem 0 1rem;
}

.admin-menu-item-card::before {
 content: "";
 position: absolute;
 top: 0;
 left: 0;
 width: 100%;
 height: 100%;
 border-radius: 10px;
 backdrop-filter: blur(5px);
 -webkit-backdrop-filter: blur(5px);
 z-index: -1;
}

.admin-menu-item-card img {
 width: 180px;
 height: 200px;
 object-fit: cover;
 border-radius: 8px;
 margin-bottom: 10px;
}

.admin-menu-item-card h3 {
 font-size: 1.3rem;
 margin-bottom: 8px;
}

.admin-menu-item-card p {
 font-size: 1rem;
 margin-bottom: 2px;
}

.admin-menu-item-actions {
 display: flex;
 align-items: center;
 gap: 10px;
 margin-top: 15px;
}

.admin-menu-item-card button {
 background: #fff;
 color: black;
 padding: 8px 18px;
 border: none;
 border-radius: 8px;
 cursor: pointer;
 font-weight: 600;
 transition: all 0.2s;
}
.admin-menu-item-card button:hover {
 background: #929292;
 color: white;
}

.admin-menu-item-actions button,
.admin-menu-items-container + div button {
 background-color: #fffdfd;
 border: none;
 color: black;
 border-radius: 6px;
 padding: 10px 28px;
 font-family: "Oswald", sans-serif;
 font-size: 1.2rem;
 font-weight: 600;
 transition: all 0.3s ease;
 cursor: pointer;
}

.admin-menu-item-actions button:hover,
.admin-menu-items-container + div button:hover {
 background-color: #929292;
 color: white;
}

.admin-form {
 display: flex;
 gap: 10px;
 margin: 20px 0;
 background: rgba(255,255,255,0.08);
 border-radius: 10px;
 box-shadow: 0 2px 8px rgba(0,0,0,0.08);
 padding: 24px;
 align-items: center;
 justify-content: center;
}

.admin-form input,
.admin-form select {
 background: rgba(255,255,255,0.15);
 border: 1px solid #fff;
 border-radius: 8px;
 padding: 10px 16px;
 color: white;
 font-size: 1rem;
 transition: box-shadow 0.2s;
 box-shadow: 0 2px 6px rgba(0,0,0,0.08);
 min-width: 180px;
 height: 44px;
 margin-bottom: 0;
}

.admin-form select {
 background: rgba(30,41,59,0.25);
 color: #fff;
 border: 1px solid #fff;
 border-radius: 8px;
 padding: 10px 16px;
 font-size: 1rem;
 box-shadow: 0 2px 6px rgba(0,0,0,0.08);
 min-width: 180px;
 height: 44px;
}

.admin-form select option {
 background: #222;
 color: #fff;
}

.admin-form label.admin-role-label {
 color: white;
 font-size: 1rem;
```

```
 min-width: 60px;
 text-align: left;
 margin-right: 0;
 margin-bottom: 0;
 height: 44px;
 display: flex;
 align-items: center;
}

.admin-form button {
 background: #32a852;
 color: white;
 border: none;
 border-radius: 8px;
 padding: 10px 24px;
 font-weight: 600;
 cursor: pointer;
 transition: background 0.2s;
 min-width: 120px;
 height: 44px;
 display: flex;
 align-items: center;
 justify-content: center;
}

.admin-form button:hover {
 background: #218c3a;
}

.admin-landing-section input::placeholder {
 color: white !important;
}

/* Add New Items page */
.add-section {
 min-height: 100vh;
 display: flex;
 align-items: center;
 justify-content: center;
 background-image: url('../src/assets/abstract_background_image.jpg');
 background-size: cover;
 color: white;
}

.add-glass-container {
 width: 420px;
 font-family: 'Oswald', sans-serif;
 padding: 36px 32px;
 background: rgba(255,255,255,0.12);
 border-radius: 16px;
 box-shadow: 0 4px 16px rgba(0,0,0,0.12);
 border: 1px solid #fff;
 position: relative;
 display: flex;
 flex-direction: column;
 align-items: center;
 justify-content: center;
 z-index: 1;
}

.add-glass-container::before {
 content: "";
 position: absolute;
 width: 100%;
 height: 100%;
 border-radius: 16px;
 backdrop-filter: blur(8px);
 -webkit-backdrop-filter: blur(8px);
 z-index: -1;
}

.add-glass-container h2 {
 font-size: 2rem;
 margin-bottom: 24px;
 text-align: center;
}

.add-form {
 display: flex;
 flex-direction: column;
 gap: 18px;
 width: 100%;
 align-items: center;
}

.add-form input,
.add-form select {
 width: 90%;
 background: rgba(255,255,255,0.18);
 border: 1px solid #fff;
 border-radius: 8px;
 padding: 12px 16px;
 color: white;
 font-size: 1rem;
 margin-bottom: 0;
}

.add-form input:focus,
.add-form select:focus {
 outline: none;
 box-shadow: 0 0 0 2px #929292;
}

.add-form button {
 background: #32a852;
 color: white;
 border: none;
 border-radius: 8px;
 padding: 12px 24px;
 font-weight: 600;
 cursor: pointer;
 transition: background 0.2s;
 margin-top: 10px;
}

.add-form button:hover {
 background: #218c3a;
}

.add-form input::placeholder {
 color: #fff;
 opacity: 1;
}

/* Update menu items style */
.update-section {
 min-height: 100vh;
 display: flex;
 align-items: center;
 justify-content: center;
 background-image: url('../src/assets/abstract_background_image.jpg');
 background-size: cover;
 color: white;
}

.update-glass-container {
 width: 420px;
 font-family: 'Oswald', sans-serif;
 padding: 36px 32px;
 background: rgba(255,255,255,0.12);
 border-radius: 16px;
 box-shadow: 0 4px 16px rgba(0,0,0,0.12);
 border: 1px solid #fff;
 position: relative;
 display: flex;
 flex-direction: column;
 align-items: center;
 justify-content: center;
 z-index: 1;
}

.update-glass-container::before {
 content: "";
```

```
 position: absolute;
 width: 100%;
 height: 100%;
 border-radius: 16px;
 backdrop-filter: blur(8px);
 -webkit-backdrop-filter: blur(8px);
 z-index: -1;
}

.update-glass-container h2 {
 font-size: 2rem;
 margin-bottom: 24px;
 text-align: center;
}

.update-form {
 display: flex;
 flex-direction: column;
 gap: 18px;
 width: 100%;
 align-items: center;
}

.update-form input,
.update-form select {
 width: 90%;
 background: rgba(255,255,255,0.18);
 border: 1px solid #fff;
 border-radius: 8px;
 padding: 12px 16px;
 color: white;
 font-size: 1rem;
 margin-bottom: 0;
}

.update-form input:focus,
.update-form select:focus {
 outline: none;
 box-shadow: 0 0 0 2px #929292;
}

.update-form button {
 background: #32a852;
 color: white;
 border: none;
 border-radius: 8px;
 padding: 12px 24px;
 font-weight: 600;
 cursor: pointer;
 transition: background 0.2s;
 margin-top: 10px;
}

.update-form button:hover {
 background: #218c3a;
}

.update-form input::placeholder {
 color: #fff;
 opacity: 1;
}

.update-back-btn {
 background-color: #fffdfd;
 border: none;
 color: black;
 border-radius: 6px;
 padding: 10px 28px;
 font-family: "Oswald", sans-serif;
 font-size: 1.2rem;
 font-weight: 600;
 transition: all 0.3s ease;
 cursor: pointer;
 margin-top: 18px;
 text-align: center;
 text-decoration: none;
 display: inline-block;
}

.update-back-btn:hover {
 background-color: #929292;
 color: white;
}
```

main.jsx

```
import { StrictMode } from 'react'
import { createRoot } from 'react-dom/client'
import './index.css'
import App from './App.jsx'

createRoot(document.getElementById('root')).render(
 <StrictMode>
  <App />
 </StrictMode>,
)
```

App.jsx

```
import './index.css'; {/* This single CSS file is used for the entire website. Styles are also provided inline in some cases */}
import { BrowserRouter, Routes, Route } from 'react-router-dom';
import ProtectedRoute from './pages/ProtectedRoute';
import Homepage from './pages/Homepage';
import CustomerLanding from './pages/CustomerLanding';
import AdminLanding from './pages/AdminLanding';
import Add from './pages/Add';
import Update from './pages/Update';

const App = () => {
 return (
  <BrowserRouter>
   <Routes>
    {/* Displays <Homepage /> if '/' is the path - it is the main starting project for this website for a user */}
    <Route path="/" element={<Homepage />} />
    {/* Allows login as customer and admin and allows admin to add and update menu_items table via two separate routes '/add' and '/update/:id' */}
    <Route path="/customer" element={
     <ProtectedRoute allowedRole="Customer">
      <CustomerLanding />
     </ProtectedRoute>
    } />
    <Route path="/admin" element={
     <ProtectedRoute allowedRole="Admin">
      <AdminLanding />
     </ProtectedRoute>
    } />
    <Route path="/add" element={
     <ProtectedRoute allowedRole="Admin">
      <Add />
     </ProtectedRoute>
    } />
    <Route path="/update/:id" element={
     <ProtectedRoute allowedRole="Admin">
      <Update />
     </ProtectedRoute>
    } />
   </Routes>
  </BrowserRouter>
 );
}

export default App;
```

Update.jsx

```
import axios from "axios";
import React, { useState } from "react";
import { Link, useLocation, useNavigate } from "react-router-dom";

const Update = () => {
 // Hook for navigation and getting the current location
 const navigate = useNavigate();
 const location = useLocation();

 // This is for getting the id of the item to be updated from the URL
 const itemId = location.pathname.split("/")[2];

 // State to hold the item details
 const [item, setItem] = useState({
  item_name: "",
  category: "",
  price: "",
  item_picture: ""
 });

 // Fetch the current item details when the component mounts
 React.useEffect(() => {
  axios.get(`http://localhost:8800/menu_items/${itemId}`)
   .then(res => setItem(res.data))
   .catch(err => console.log(err));
 }, [itemId]);

 // Handle input changes
 const handleChange = e => {
  setItem(prev => ({ ...prev, [e.target.name]: e.target.value }));
 };

 // Handle form submission to update the item
 const handleSubmit = async e => {
  e.preventDefault();
  try {
   await axios.put(`http://localhost:8800/menu_items/${itemId}`, item);
   navigate("/admin");
  } catch (err) {
   alert("Update failed");
  }
 };

 return (
  <section className="update-section">
   <div className="update-glass-container">
    <h2>Update Menu Item</h2>
    <form className="update-form" onSubmit={handleSubmit}>
     <input
      type="text"
      name="item_name"
      placeholder="Item Name"
      value={item.item_name}
      onChange={handleChange}
      required
     />
     <input
      type="text"
      name="category"
      placeholder="Category"
      value={item.category}
      onChange={handleChange}
      required
     />
     <input
      type="number"
      name="price"
      placeholder="Price"
      value={item.price}
      onChange={handleChange}
      required
     />
```

```
 <input
 type="text"
 name="item_picture"
 placeholder="Image URL"
 value={item.item_picture}
 onChange={handleChange}
 />
 <button type="submit" className="font-changer">Update Item</button>
 </form>
 <Link to="/admin" className="update-back-btn">Back</Link>
 </div>
 </section>
 );
};

export default Update;
```

Reviews.jsx

```
import { useEffect, useState } from "react";
import axios from 'axios';

const Reviews = () => {
 // State to hold reviews data
 const [reviews, setReviews] = useState([]);

 // Fetch reviews from the backend when the component mounts
 useEffect(() => {
  const fetchReviews = async () => {
   try {
    const res = await axios.get("http://localhost:8800/reviews");
    setReviews(res.data);
   } catch (err) {
    console.log(err);
   }
  };
  fetchReviews();
 }, []);

 // Function to render star ratings
 const renderStars = (rating) => {
 const rounded = Math.round(rating); // rounds 4.1 to 4, 4.7 to 5
 return Array.from({ length: 5 }, (_, i) =>
  <span key={i}>{i < rounded ? '★' : '☆'}</span>
 );
 };

 return (
  <section className="reviews-section">
   <h2>WHAT OTHERS ARE SAYING...</h2>
   <p>Reviews from our frequent visitors</p>
   <div className="reviews-container">
    {reviews.map((review) => (
     <div className="review-card" key={review.review_id}>
     <p className="review-card-description">"{review.description}"</p>
     <p className="review-author">- {review.username}</p>
     <p className="rating-value">{renderStars(review.rating)}</p>
     </div>
   ))}
   </div>
  </section>
 );
};

export default Reviews;
```

ProtectedRoute.jsx

```
import { Navigate } from 'react-router-dom';

const ProtectedRoute = ({ children, allowedRole }) => {
 const user = JSON.parse(localStorage.getItem('user'));
 if (!user) {
  return <Navigate to="/" replace />;
 }
 if (allowedRole && user.role !== allowedRole) {
  return <Navigate to="/" replace />;
 }
 return children;
};

export default ProtectedRoute;
```

MenuItems.jsx

```
import React from 'react'
import { useState, useEffect } from 'react'
import axios from 'axios'
import { Link, useNavigate } from 'react-router-dom'

const MenuItems = () => {
 // State to hold menu items
 const [menuItems, setMenuItems] = useState([]);

 // Fetch menu items from the backend when the component mounts
 useEffect(() => {
  const fetchMenuItems = async () => {
   try {
    const res = await axios.get("http://localhost:8800/menu_items");
    setMenuItems(res.data);
   } catch (err) {
    console.log(err);
   }
  };
  fetchMenuItems();
 }, []);

 // Function to handle deletion of a menu item
 const handleClick = async (id) => {
  try {
   await axios.delete("http://localhost:8800/menu_items/" + id);
   // To refresh the page after deletion
   window.location.reload();
  } catch (err) {
   console.log(err);
  }
 }

 return (
  <div>
   <h1 style={{textAlign: 'center', marginTop: "15px", fontSize: "2rem"}}>Menu
Items</h1>
   <div className="admin-menu-items-container">
    {menuItems.map((item) => (
     <div className="admin-menu-item-card" key={item.item_id}>
      {item.item_picture && (
       <img src={item.item_picture} alt={`Picture of menu item
${item.item_name}`} />
      )}
      <h3>{item.item_name}</h3>
      <p>ID: {item.item_id}</p>
      <p>Category: {item.category}</p>
      <p>Price: ₹{item.price}</p>
      <div className="admin-menu-item-actions">
       <button className='delete-button' onClick={() =>
handleClick(item.item_id)}>Delete</button>
```

```
      <button className='update-button'><Link to=
{`/update/${item.item_id}`}>Update</Link></button>
 </div>
 </div>
 ))}
 </div>
 <div style={{textAlign: 'center', marginTop: '2rem'}}>
 <button><Link to="/add">Add New Item</Link></button>
 </div>
 </div>
 )
}

export default MenuItems
```

Login.jsx

```
import { useState } from 'react';
import { useNavigate } from 'react-router-dom';

const Login = () => {
 // State variables for form inputs and error message
 const [username, setUsername] = useState('');
 const [password, setPassword] = useState('');
 const [error, setError] = useState('');
 const navigate = useNavigate();

 // Handle login form submission
 const handleSubmit = async (e) => {
  e.preventDefault();
  setError('');
  try {
   const res = await fetch('http://localhost:8800/login', {
    method: 'POST',
    headers: { 'Content-Type': 'application/json' },
    body: JSON.stringify({ username, password })
   });
   const data = await res.json();
   if (!res.ok) {
    setError(data.error || 'Login failed');
    return;
   }
   localStorage.setItem('user', JSON.stringify(data));
   if (data.role === 'Admin') {
    navigate('/admin');
   } else {
    navigate('/customer');
   }
  } catch (err) {
   setError('Server error');
  }
 };

 return (
  <section className="login-section" id="login-section">
   <div className="glass-container">
    <div className="login-box">
     <h2>Login</h2>
     <p>&#9888; Contact admin for new registration!</p>
     <form onSubmit={handleSubmit}>
      <input
       type="text"
       id="username"
       name="username"
       required
       placeholder="Username"
       value={username}
       onChange={e => setUsername(e.target.value)}
      />
      <input
      type="password"
      id="password"
      name="password"
      required
      placeholder="Password"
      value={password}
      onChange={e => setPassword(e.target.value)}
      />
      <button type="submit">Login</button>
     </form>
     {/* Display error message in red in case of error */}
     {error && <p style={{ color: 'red', marginTop: '10px' }}>{error}</p>}
    </div>
   </div>
  </section>
 );
}

export default Login;
```

Homepage.jsx

```
import Hero from './Hero';
import Login from './Login';
import Reviews from "./Reviews";
import Credits from "./Credits";

const Homepage = () => {
 return (
  // Using React fragments (<></>) to avoid unnecessary divs and passing multiple
elements
  <>
  {/* Hero, Login, Reviews, Credits are separately written in their respective .jsx
files. Clean horizontal rule (HR) is added between these for aesthetics */}
  <Hero />
  <hr style={{ height: '1px', borderWidth: '0', backgroundColor: 'gray' }} />
  <Login />
  <hr style={{ height: '1px', borderWidth: '0', backgroundColor: 'gray' }} />
  <Reviews />
  <hr style={{ height: '1px', borderWidth: '0', backgroundColor: 'gray' }} />
  <Credits />
  <hr style={{ height: '1px', borderWidth: '0', backgroundColor: 'gray' }} />
  </>
 );
}

export default Homepage;
```

Hero.jsx

```
import cloche_icon from "../assets/cloche_icon.png"; // Import the cloche or dish
icon image from assets for logo

const Hero = () => {
 return (
  <section className="homepage page-background">
   <div className="navbar">
    <div className="logo-div">
     <img src={cloche_icon} alt="EatWise Logo" className="logo-img"/>
     <h1>EatWise</h1>
    </div>
    <a href="#login-section">
     <button type="button">Login</button>
    </a>
   </div>
```

```
<div className="hero-text">
 <h1>Welcome to EatWise!</h1>
 <p>Efficient Restaurant Management System</p>
 </div>
 </section>
 )
}

export default Hero
```

CustomerLanding.jsx

```
import { useNavigate } from 'react-router-dom';
import { useEffect, useState } from 'react';

const CustomerLanding = () => {
 // Navigation hook to redirect users to different routes
 const navigate = useNavigate();
 // State variables to hold menu items, order items, and quantities
 const [menuItems, setMenuItems] = useState([]);
 const [orderItems, setOrderItems] = useState([]);
 const [quantities, setQuantities] = useState({});
 // To store logged-in user details from localStorage
 const user = JSON.parse(localStorage.getItem('user'));

 // During logout, remove user from localStorage and navigate to '/' or <Homepage
/>
 const handleLogout = () => {
  localStorage.removeItem('user');
  navigate('/');
 };

 // Retrieve menu items from backend and store in state variable
 useEffect(() => {
  fetch('http://localhost:8800/menu_items')
   .then(res => res.json())
   .then(data => setMenuItems(data));
 }, []);

 // Retrieve order items for the logged-in user and store in state variable
 useEffect(() => {
  if (user) {
   fetch(`http://localhost:8800/order_items?user_id=${user.user_id}`)
    .then(res => res.json())
    .then(data => setOrderItems(data));
  }
 }, [user]);

 // Handle quantity change
 const handleQuantityChange = (itemId, value) => {
  setQuantities(q => ({ ...q, [itemId]: value }));
 };

 // Handle order button
 const handleOrder = (item) => {
  const quantity = parseInt(quantities[item.item_id] || 1);
  if (!user) return;
  fetch('http://localhost:8800/order_items', {
   method: 'POST',
   headers: { 'Content-Type': 'application/json' },
   body: JSON.stringify({
    user_id: user.user_id,
    item_id: item.item_id,
    quantity,
    price: item.price
   })
  })
   .then(async res => {
    const data = await res.json();
    if (!res.ok || !data.success) {
     alert('Order failed: ' + (data.error || 'Unknown error'));
     console.error('Order error:', data);
     return;
    }
    // Refresh order items
    fetch(`http://localhost:8800/order_items?user_id=${user.user_id}`)
    .then(res => res.json())
    .then(data => setOrderItems(data));
   })
   .catch(err => {
    alert('Network error');
    console.error('Network error:', err);
   });
 };

 return (
  <section className="customer-landing-section">
   <div className="customer-landing-section-header">
    <h2>Welcome, {user?.username}!</h2>
    <button onClick={handleLogout} style={{marginTop:
'20px'}}>Logout</button>
   </div>

   <div className="menu-items-container">
    {menuItems.map(item => (
     <div className="menu-item-card" key={item.item_id}>
      {item.item_picture
      ? <img src={item.item_picture} alt={item.item_name} />
      : null}
      <h3>{item.item_name}</h3>
      <p>Category: {item.category}</p>
      <p>Price: ₹{item.price}</p>
      <div className="menu-item-actions">
       <label htmlFor={`quantity-${item.item_id}`}>Qty:</label>
       <input
        type="number"
        min="1"
        value={quantities[item.item_id] || 1}
        onChange={e => handleQuantityChange(item.item_id, e.target.value)}
        style={{ width: '60px', borderRadius: '6px', border: '1px solid #ccc', padding:
'4px' }}
        id={`quantity-${item.item_id}`}
       />
       <button onClick={() => handleOrder(item)}>Order</button>
      </div>
     </div>
    ))}
   </div>

   <div className="order-items-container">
    <h2>Your Orders</h2>
    <table className="order-items-table">
     <thead>
      <tr>
       <th>Order Item ID</th>
       <th>Item Name</th>
       <th>Quantity</th>
       <th>Suborder Price</th>
      </tr>
     </thead>
     <tbody>
      {orderItems.map(order => (
       <tr key={order.order_items_id}>
        <td>{order.order_items_id}</td>
        <td>{order.item_name}</td>
        <td>{order.quantity}</td>
        <td>₹{order.suborder_price}</td>
        <td>
         <button
          style={{ background: '#a83232', color: 'white', border: 'none', borderRadius: '6px',
padding: '6px 12px', cursor: 'pointer' }}
          onClick={() => {
           fetch(`http://localhost:8800/order_items/${order.order_items_id}`, {
            method: 'DELETE'
           })
           .then(res => res.json())
           .then(data => {
            if (data.success) {
```

```
// Refresh order items
 fetch(`http://localhost:8800/order_items?user_id=${user.user_id}`)
 .then(res => res.json())
 .then(data => setOrderItems(data));
 } else {
 alert('Delete failed');
 }
 });
 }}
 >Delete</button>
 </td>
 </tr>
 ))}
 </tbody>
 </table>
 </div>
 </section>
 );
};

export default CustomerLanding;
```

Credits.jsx

```
const Credits = () => {
 return (
  <section className='credits-section'>
    <p className="light-emphasis">DBMS project by</p>
    <p>Aravind A Kamath</p>
    <p>Anandhakrishnan S</p>
    <p>Aravind Sajeev</p>
    <p>Arjun Manoj</p>
    <p className="light-emphasis">S5 CS-A</p>
    <p className="light-emphasis">25 September 2025</p>
  </section>
 )
}

export default Credits
```

AdminLanding.jsx

```
import { useNavigate } from "react-router-dom";
import { useEffect, useState } from "react";
import MenuItems from "./MenuItems";
import Credits from "./Credits";

const AdminLanding = () => {
 // Navigation hook
 const navigate = useNavigate();

 // Logout function for removing user from local storage and redirecting to home
 const handleLogout = () => {
  localStorage.removeItem("user");
  navigate("/");
 };

 // Get user from local storage
 const user = JSON.parse(localStorage.getItem("user"));

 // Reviews state
 const [reviews, setReviews] = useState([]);
 useEffect(() => {
  fetch("http://localhost:8800/reviews")
   .then((res) => res.json())
   .then((data) => setReviews(data));
 }, []);

 // Delete review function
 const handleDeleteReview = (id) => {
  fetch(`http://localhost:8800/reviews/${id}`, { method: "DELETE" })
   .then((res) => res.json())
   .then((data) => {
    if (data.success) {
     setReviews((reviews) => reviews.filter((r) => r.review_id !== id));
    } else {
    alert("Delete failed");
    }
    });
    };

    // Users state
    const [users, setUsers] = useState([]);
    useEffect(() => {
    fetch("http://localhost:8800/users")
    .then((res) => res.json())
    .then((data) => setUsers(data));
    }, []);

    // Delete user function
    const handleDeleteUser = (id) => {
    fetch(`http://localhost:8800/users/${id}`, { method: "DELETE" })
    .then((res) => res.json())
    .then((data) => {
    if (data.success) {
    setUsers((users) => users.filter((u) => u.user_id !== id));
    } else {
    alert("Delete failed");
    }
    });
    };

    // Orders Management state
    const [orders, setOrders] = useState([]);
    useEffect(() => {
     fetch("http://localhost:8800/orders")
      .then((res) => res.json())
      .then((data) => setOrders(data));
    }, []);

    // Delete order function
    const handleDeleteOrder = (id) => {
     fetch(`http://localhost:8800/orders/${id}`, { method: "DELETE" })
      .then((res) => res.json())
      .then((data) => {
       if (data.success) {
        setOrders((orders) => orders.filter((o) => o.order_id !== id));
       } else {
        alert("Delete failed");
       }
      });
    };

    // Order Items Management state
    const [orderItems, setOrderItems] = useState([]);
    useEffect(() => {
     fetch("http://localhost:8800/order_items?all=true")
      .then((res) => res.json())
      .then((data) => setOrderItems(data));
    }, []);

    // Delete order item function
    const handleDeleteOrderItem = (id) => {
     fetch(`http://localhost:8800/order_items/${id}`, { method: "DELETE" })
      .then((res) => res.json())
      .then((data) => {
       if (data.success) {
        setOrderItems((items) =>
         items.filter((oi) => oi.order_items_id !== id)
        );
       } else {
        alert("Delete failed");
       }
      });
    };

    return (
     <>
     <section className="admin-landing-section">
      <div className="admin-landing-section-header">
       <h2>Welcome, {user?.username}!</h2>
       <button onClick={handleLogout}>Logout</button>
      </div>
```

```
<hr
style={{ height: "1px", borderWidth: "0", backgroundColor: "gray" }}
/>
<div className="admin-landing-section-content">
<div className="admin-landing-menu-items" style={{marginBottom: '20px'}}>
<MenuItems />
</div>
<hr
style={{ height: "1px", borderWidth: "0", backgroundColor: "gray" }}
/>
{/* Reviews Management Section */}
<div style={{ marginTop: "10px", padding: "0 30px" }}>
<h2 className="text-aligner" style={{ fontSize: "2rem" }}>Reviews
Management</h2>
<table
style={{
width: "100%",
color: "white",
background: "rgba(255,255,255,0.08)",
borderRadius: "10px",
marginTop: "20px",
}}
>
<thead>
<tr>
<th className="text-aligner">ID</th>
<th className="text-aligner">User</th>
<th className="text-aligner">Description</th>
<th className="text-aligner">Date</th>
<th className="text-aligner">Rating</th>
<th className="text-aligner">Delete</th>
</tr>
</thead>
<tbody>
{reviews.map((r) => (
<tr key={r.review_id}>
<td className="text-aligner">{r.review_id}</td>
<td className="text-aligner">{r.username}</td>
<td className="text-aligner">{r.description}</td>
<td className="text-aligner">{r.date}</td>
<td className="text-aligner">{r.rating}</td>
<td className="text-aligner">
<button
onClick={() => handleDeleteReview(r.review_id)}
style={{
background: "#a83232",
color: "white",
border: "none",
borderRadius: "6px",
padding: "6px 12px",
cursor: "pointer",
}}
>
Delete
</button>
</td>
</tr>
))}
</tbody>
</table>
{/* Add Review Form */}
<form
className="admin-form"
onSubmit={async (e) => {
e.preventDefault();
const form = e.target;
const body = {
user_id: form.user_id.value,
description: form.description.value,
date: form.date.value,
rating: form.rating.value,
};
const res = await fetch("http://localhost:8800/reviews", {
method: "POST",
headers: { "Content-Type": "application/json" },
body: JSON.stringify(body),
});
const data = await res.json();
if (data.success) {
form.reset();
fetch("http://localhost:8800/reviews")
.then((res) => res.json())
.then((data) => setReviews(data));
} else {
alert(data.error ? `Add failed: ${data.error}` : "Add failed");
}
}}
>
<input
name="user_id"
type="number"
placeholder="User ID"
required
/>
<input
name="description"
type="text"
placeholder="Description"
required
/>
<input name="date" type="date" required />
<input
name="rating"
type="number"
min="1"
max="5"
placeholder="Rating"
required
/>
<button type="submit" className="font-changer">Add Review</button>
</form>
</div>
<hr
style={{ height: "1px", borderWidth: "0", backgroundColor: "gray" }}
/>

  {/* Orders Management Section */}
  <div style={{ marginTop: "15px", marginBottom: "20px", padding: "0 30px"
}}>
    <h2 className="text-aligner" style={{ fontSize: "2rem" }}>Orders
Management</h2>
    <table
     style={{
      width: "100%",
      color: "white",
      background: "rgba(255,255,255,0.08)",
      borderRadius: "10px",
      marginTop: "20px",
     }}
    >
     <thead>
      <tr>
       <th className="text-aligner">Order ID</th>
       <th className="text-aligner">User ID</th>
       <th className="text-aligner">Order Date Time</th>
       <th className="text-aligner">Total Amount</th>
       <th className="text-aligner">Delete</th>
      </tr>
     </thead>
     <tbody>
      {orders.map((o) => (
       <tr key={o.order_id}>
        <td className="text-aligner">{o.order_id}</td>
        <td className="text-aligner">{o.user_id}</td>
        <td className="text-aligner">{o.order_date_time}</td>
        <td className="text-aligner">{o.total_amount}</td>
        <td className="text-aligner">
         <button
          onClick={() => handleDeleteOrder(o.order_id)}
          style={{
           background: "#a83232",
           color: "white",
           border: "none",
           borderRadius: "6px",
           padding: "6px 12px",
           cursor: "pointer",
```

```
}}
>
Delete
</button>
</td>
</tr>
))}
</tbody>
</table>
</div>
<hr
style={{ height: "1px", borderWidth: "0", backgroundColor: "gray" }}
/>
{/* Order Items Management Section */}
<div style={{ marginTop: "15px", marginBottom: "20px", padding: "0px 30px"
}}>
<h2 className="text-aligner" style={{ fontSize: "2rem" }}>Order Items
Management</h2>
<table
style={{
width: "100%",
color: "white",
background: "rgba(255,255,255,0.08)",
borderRadius: "10px",
marginTop: "20px",
}}
>
<thead>
<tr>
<th className="text-aligner">Order Item ID</th>
<th className="text-aligner">Order ID</th>
<th className="text-aligner">Item ID</th>
<th className="text-aligner">Quantity</th>
<th className="text-aligner">Suborder Price</th>
<th className="text-aligner">Delete</th>
</tr>
</thead>
<tbody>
{orderItems.map((oi) => (
<tr key={oi.order_items_id}>
<td className="text-aligner">{oi.order_items_id}</td>
<td className="text-aligner">{oi.order_id}</td>
<td className="text-aligner">{oi.item_id}</td>
<td className="text-aligner">{oi.quantity}</td>
<td className="text-aligner">{oi.suborder_price}</td>
<td className="text-aligner">
<button
onClick={() => handleDeleteOrderItem(oi.order_items_id)}
style={{
background: "#a83232",
color: "white",
border: "none",
borderRadius: "6px",
padding: "6px 12px",
cursor: "pointer",
}}
>
Delete
</button>
</td>
</tr>
))}
</tbody>
</table>
</div>

<hr
style={{ height: "1px", borderWidth: "0", backgroundColor: "gray" }}
/>
{/* Users Management Section */}
<div style={{ marginTop: "15px",padding: "0 30px" }}>
<h2 className="text-aligner" style={{ fontSize: "2rem" }}>Users
Management</h2>
<table
style={{
width: "100%",
color: "white",
background: "rgba(255,255,255,0.08)",
borderRadius: "10px",
marginTop: "20px",
}}
>
<thead>
<tr>
<th className="text-aligner">ID</th>
<th className="text-aligner">Username</th>
<th className="text-aligner">Password</th>
<th className="text-aligner">Email</th>
<th className="text-aligner">Role</th>
<th className="text-aligner">Delete</th>
</tr>
</thead>
<tbody>
{users.map((u) => (
<tr key={u.user_id}>
<td className="text-aligner">{u.user_id}</td>
<td className="text-aligner">{u.username}</td>
<td className="text-aligner">{u.password}</td>
<td className="text-aligner">{u.email || "-"}</td>
<td className="text-aligner">{u.role}</td>
<td className="text-aligner">
<button
onClick={() => handleDeleteUser(u.user_id)}
style={{
background: "#a83232",
color: "white",
border: "none",
borderRadius: "6px",
padding: "6px 12px",
cursor: "pointer",
}}
>
Delete
</button>
</td>
</tr>
))}
</tbody>
</table>
  {/* Add User Form */}
  <form
   className="admin-form"
   onSubmit={async (e) => {
    e.preventDefault();
    const form = e.target;
    const body = {
     username: form.username.value,
     password: form.password.value,
     email: form.email.value,
     role: form.role.value,
    };
    const res = await fetch("http://localhost:8800/users", {
     method: "POST",
     headers: { "Content-Type": "application/json" },
     body: JSON.stringify(body),
    });
    const data = await res.json();
    if (data.success) {
     form.reset();
     fetch("http://localhost:8800/users")
      .then((res) => res.json())
      .then((data) => setUsers(data));
    } else {
     alert(data.error ? `Add failed: ${data.error}` : "Add failed");
    }
   }}
  >
   <input
    name="username"
    type="text"
    placeholder="Username"
    required
   />
   <input
    name="password"
    type="text"
    placeholder="Password"
    required
   />
```

```
 <input name="email" type="email" placeholder="Email" />
<select
name="role"
required
style={{
background: "rgba(30,41,59,0.15)",
color: "white",
border: "1px solid #ccc",
borderRadius: "8px",
padding: "8px 12px",
fontSize: "1rem",
}}
>
<option value="" disabled>
Role
</option>
<option value="Admin">Admin</option>
<option value="Customer">Customer</option>
</select>
<button type="submit" className="font-changer">Add User</button>
</form>
</div>
</div>
</section>
<hr
style={{ height: "1px", borderWidth: "0", backgroundColor: "gray" }}
/>
<Credits />
</>
);
};

export default AdminLanding;
```

Add.jsx

```
import { useState } from 'react'; // Importing useState hook from React
import { useNavigate } from 'react-router-dom'; // Importing useNavigate hook
from react-router-dom for navigation
import axios from 'axios'; // Importing axios for making HTTP requests

const Add = () => {
 // State to hold the new menu item details
 const [menuItem, setMenuItem] = useState({
  item_id: "",
  item_picture: "",
  item_name: "",
  category: "",
  price: null,
 });

 // Hook for navigation
 const navigate = useNavigate();

 // Function to handle input changes and update the state
 const handleChange = (e) => {
  setMenuItem((prev) => ({ ...prev, [e.target.name]: e.target.value }));
 };

 // Function to send updated data to backend server
 const handleClick = async (e) => {
  e.preventDefault(); // To prevent refreshing of the page when clicking the button
  try {
   await axios.post("http://localhost:8800/menu_items", menuItem);
   navigate("/admin");
  } catch (err) {
   console.log(err);
  }
 }

 return (
  <section className="add-section">
   <div className="add-glass-container">
    <h2>Add New Item</h2>
    <form className="add-form">
     <input type="text" placeholder="Item ID" onChange={handleChange}
name='item_id' required />
 <input type="text" placeholder="Item Picture URL" onChange={handleChange}
name='item_picture' required />
 <input type="text" placeholder="Item Name" onChange={handleChange}
name='item_name' required />
 <input type="text" placeholder="Category" onChange={handleChange}
name='category' required />
 <input type="number" placeholder="Price" onChange={handleChange}
name='price' required />
 <button type="submit" onClick={handleClick} className='font-changer'>Add
Item</button>
 </form>
 </div>
 </section>
 );
};

export default Add;
```

index.js (backend)

```
import express from 'express';
import mysql from 'mysql2';
import cors from 'cors';
const app = express();

// Code to connect to MySQL database
// If there is an authentication problem, ALTER USER 'root'@'localhost'
IDENTIFIED WITH mysql_native_password BY 'your_password';
const db = mysql.createConnection({
  host: 'localhost',
  user: 'root',
  password: 'Aravind2005',
  database: 'restaurant_schema'
});

// Without middleware, you cannot send json in the body of a post request
app.use(express.json());
// Without CORS middleware, you cannot make requests from frontend to
backend. You can also specify domain names here like localhost:3000
app.use(cors());

// Basic route to check if backend is running
app.get('/', (req, res) => {
  res.json("Hello this is the backend!");
});

// Login route
app.post('/login', (req, res) => {
  const { username, password } = req.body;
  const q = "SELECT * FROM users WHERE username = ? AND password = ?";
  db.query(q, [username, password], (err, results) => {
    if (err) return res.status(500).json({ error: 'Database error' });
    if (results.length === 0) {
      return res.status(401).json({ error: 'Invalid credentials' });
    }
    // Return role and user info
    const user = results[0];
    return res.json({ role: user.role, user_id: user.user_id, username: user.username
});
  });
});

// Retrieve all users
app.get('/users', (req, res) => {
  const q = "SELECT * FROM users";
  db.query(q, (err, data) => {
    if (err) return res.status(500).json({ error: err });
    return res.json(data);
  });
});

// Delete user by id
app.delete('/users/:id', (req, res) => {
  const user_id = req.params.id;
  const q = "DELETE FROM users WHERE user_id = ?";
  db.query(q, [user_id], (err, data) => {
    if (err) return res.status(500).json({ error: err });
    return res.json({ success: true });
  });
});

// Admin's menu_items management routes
// Retrieve all menu items
app.get('/menu_items', (req, res) => {
  const q = "SELECT * FROM menu_items";
  db.query(q, (err, data) => {
    if (err) return res.json(err);
    return res.json(data);
  });;
});

// Create new menu item
app.post('/menu_items', (req, res) => {
 const q = "INSERT INTO menu_items (`item_id`, `item_name`, `category`,
`price`, `item_picture`) VALUES (?)";
 const values = [req.body.item_id, req.body.item_name, req.body.category,
req.body.price, req.body.item_picture];
 db.query(q, [values], (err, data) => {
 if (err) return res.json(err);
 return res.json("Menu item created successfully!");
 });
});

// Delete menu item by id
app.delete('/menu_items/:id', (req, res) => {
 const menuItemId = req.params.id;
 const q = "DELETE FROM menu_items WHERE item_id = ?";
 db.query(q, [menuItemId], (err, data) => {
 if (err) return res.json(err);
 return res.json("Menu item deleted successfully!");
 });
})

// Update menu item by id
app.put('/menu_items/:id', (req, res) => {
 const menuItemId = req.params.id;
 const q = "UPDATE menu_items SET `item_name` = ?, `category` = ?, `price` =
?, `item_picture` = ? WHERE item_id = ?";
 const values = [
 req.body.item_name,
 req.body.category,
 req.body.price,
 req.body.item_picture
 ];
 db.query(q, [...values, menuItemId], (err, data) => {
 if (err) return res.json(err);
 return res.json("Menu item updated successfully!");
 });
})

// Customer/visitor/guest reviews routes
// Rerieve all reviews (for admin)
app.get('/reviews', (req, res) => {
 const q = "SELECT reviews.*, users.username FROM reviews JOIN users ON
reviews.user_id = users.user_id";
 db.query(q, (err, data) => {
 if (err) return res.status(500).json({ error: err });
 return res.json(data);
 });
});

// Delete review by id
app.delete('/reviews/:id', (req, res) => {
 const review_id = req.params.id;
 const q = "DELETE FROM reviews WHERE review_id = ?";
 db.query(q, [review_id], (err, data) => {
 if (err) return res.status(500).json({ error: err });
 return res.json({ success: true });
 });
});

// Get a single menu item by id
app.get('/menu_items/:id', (req, res) => {
 const menuItemId = req.params.id;
 const q = "SELECT * FROM menu_items WHERE item_id = ?";
 db.query(q, [menuItemId], (err, data) => {
 if (err) return res.status(500).json({ error: err });
 if (data.length === 0) return res.status(404).json({ error: "Menu item not found"
});
 return res.json(data[0]);
 });
});

// Add new review
app.post('/reviews', (req, res) => {
 const { user_id, description, date, rating } = req.body;
 if (!user_id || !description || !date || !rating) {
 return res.status(400).json({ error: 'Missing required fields' });
```

```
}
 const q = "INSERT INTO reviews (user_id, description, date, rating) VALUES (?,
?, ?, ?)";
 db.query(q, [user_id, description, date, rating], (err, result) => {
 if (err) return res.status(500).json({ error: err });
 if (result && result.affectedRows > 0) {
 return res.json({ success: true });
 } else {
 return res.status(500).json({ error: 'Insert failed' });
 }
 });
});

// Add new user
app.post('/users', (req, res) => {
  const { username, password, email, role } = req.body;
  if (!username || !password || !role) {
    return res.status(400).json({ error: 'Missing required fields' });
  }
  // Check for duplicate username
  const checkQ = "SELECT * FROM users WHERE username = ?";
  db.query(checkQ, [username], (err, results) => {
    if (err) return res.status(500).json({ error: err });
    if (results.length > 0) {
      return res.status(409).json({ error: 'Username already exists' });
    }
    const q = "INSERT INTO users (username, password, email, role) VALUES (?,
?, ?, ?)";
    db.query(q, [username, password, email, role], (err, result) => {
      if (err) return res.status(500).json({ error: err });
      if (result && result.affectedRows > 0) {
        return res.json({ success: true });
      } else {
        return res.status(500).json({ error: 'Insert failed' });
      }
    });
  });
});

// Add order item (creates order if needed)
app.post('/order_items', (req, res) => {
  const { user_id, item_id, quantity, price } = req.body;
  if (!user_id || !item_id || !quantity || !price) {
    return res.status(400).json({ error: 'Missing required fields' });
  }
  // Find or create an order for today
  const now = new Date();
  const order_date_time = now.toISOString().slice(0, 19).replace('T', ' ');
  const total_amount = price * quantity;
  // Check if an order exists for this user today
  const findOrderQ = "SELECT order_id FROM orders WHERE user_id = ? AND
DATE(order_date_time) = CURDATE()";
  db.query(findOrderQ, [user_id], (err, orders) => {
    if (err) return res.status(500).json({ error: err });
    let order_id;
    if (orders.length > 0) {
      order_id = orders[0].order_id;
      insertOrderItem(order_id);
    } else {
      // Create new order
      const createOrderQ = "INSERT INTO orders (user_id, order_date_time,
total_amount) VALUES (?, ?, ?)";
      db.query(createOrderQ, [user_id, order_date_time, total_amount], (err, result)
=> {
        if (err) return res.status(500).json({ error: err });
        order_id = result.insertId;
        insertOrderItem(order_id);
      });
    }
    function insertOrderItem(order_id) {
      const suborder_price = price * quantity;
      const q = "INSERT INTO order_items (order_id, item_id, quantity,
suborder_price) VALUES (?, ?, ?, ?)";
      db.query(q, [order_id, item_id, quantity, suborder_price], (err, data) => {
        if (err) return res.status(500).json({ error: err });
        return res.json({ success: true });
      });
    }
  });
});

// Delete order item
app.delete('/order_items/:id', (req, res) => {
 const order_items_id = req.params.id;
 const q = "DELETE FROM order_items WHERE order_items_id = ?";
 db.query(q, [order_items_id], (err, data) => {
 if (err) return res.status(500).json({ error: err });
 return res.json({ success: true });
 });
});

// Retrieve all orders (for admin)
app.get('/orders', (req, res) => {
 const q = "SELECT * FROM orders";
 db.query(q, (err, data) => {
 if (err) return res.status(500).json({ error: err });
 return res.json(data);
 });
});

// Delete order by id
app.delete('/orders/:id', (req, res) => {
 const order_id = req.params.id;
 const q = "DELETE FROM orders WHERE order_id = ?";
 db.query(q, [order_id], (err, data) => {
 if (err) return res.status(500).json({ error: err });
 return res.json({ success: true });
 });
});

// Retrieve all order_items (for admin) or for a user
app.get('/order_items', (req, res) => {
 if (req.query.all === 'true') {
 const q = "SELECT order_items_id, order_id, item_id, quantity, suborder_price
FROM order_items";
 db.query(q, (err, data) => {
 if (err) return res.status(500).json({ error: err });
 return res.json(data);
 });
 } else if (req.query.user_id) {
 const user_id = req.query.user_id;
 const q = `SELECT oi.order_items_id, oi.order_id, oi.item_id, oi.quantity,
oi.suborder_price, mi.item_name
 FROM order_items oi
 JOIN orders o ON oi.order_id = o.order_id
 JOIN menu_items mi ON oi.item_id = mi.item_id
 WHERE o.user_id = ?`;
 db.query(q, [user_id], (err, data) => {
 if (err) return res.status(500).json({ error: err });
 return res.json(data);
 });
 } else {
 return res.status(400).json({ error: 'Missing query parameter' });
 }
});

// Start the server
app.listen(8800, () => { console.log('Connected to backend!'); });
```

4. HARDWARE AND SOFTWARE REQUIREMENTS

HARDWARE REQUIREMENTS

- CPU: Dual-core (2 logical cores) 1.6 GHz or better
- RAM: 4 GB (2 GB free after OS and background processes)
- Disk: 2 GB free (project + node_modules + Database storage); SSD recommended but not required
- Network: Local network or loopback (localhost) access; no special bandwidth required

SOFTWARE REQUIREMENTS

- Operating System: Windows 10/11, macOS 10.15+, or any modern Linux distribution
- Database Software: MySQL (MySQL Community Server 8.x recommended)
- NodeJS v16+ and npm
- Modern Web Browser (Google Chrome or Mozilla Firefox recommended)

5. CONCLUSION

The world has become a place where there is a lot of technological development, where every single thing done physically has been transformed into a digitized or computerized form. This project is in the restaurant/food/hotel business domain.

Our website takes this approach to the next level by providing a lot of features to both customers and administrators to manage their restaurant system efficiently. Orders, Reviews, Menu, Suborder, Users - all this information is centralized for maximum convenience and efficiency. This website eliminates the need for manual labour of fetching orders and updating them. Everyone in the restaurant - whether it is waiter, cashier, customer can modify and interact with this website, creating a hassle-free experience for everyone.

In the customer side, customer has a landing page after successful login which allows customer to see the menu items, create order and view suborders. For administrator side, all the relations can be viewed and modified

6. REFERENCES

1. Learning ReactJS, ExpressJS, NodeJS, MySQL - YouTube (https://www.youtube.com)
2. Glitches, bug fixes and doubts - Google (https://www.google.com)