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Course Code: CSE-412

Section: 04 Group No: 08

Project Name: Quick Bite – Online Food Ordering & Delivery System

Assignment: Software Design Document (SDD) Format

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Contents

1. Introduction	3
Project Overview	3
Requirements	3
Technology Stack	4
2. Architectural Design	4
Context Diagram	4
Top-Level Components	4
Instantiation of Components	5
3. Component-Level Design	6
Design Components	6
Class Diagram	6
Elaboration of Design Components	7
Database Design	8
4. User Interface Design	9
Screens	9
Navigation Flow	16
5. Conclusion	16

1. Introduction

Project Overview

QuickBite is an online food delivery application that connects customers with restaurants. Customers can browse menus, add food items to their cart, and place orders for home delivery. Restaurants manage their menus and handle incoming orders, while delivery personnel ensure timely delivery. The admin oversees the entire system, making food ordering fast and convenient.



Requirements

Functional Requirements

- **User Management:** Registration, login, profile updates for all roles (Customer, Restaurant, Delivery, Admin).
- **Restaurant Management:** Add, edit, delete menu items, and manage orders.
- Food Ordering: Search food, add to cart, and checkout.
- Order Tracking: Monitor status from pending to delivery.
- **Delivery Assignment:** Assign orders to delivery personnel.
- Admin Features: Manage users, restaurants, and system data.

Non-Functional Requirements

- User-friendly and responsive design.
- Secure authentication and data handling.
- Scalable and reliable performance.

Technology Stack

• Frontend: HTML, CSS, JavaScript

• **Backend:** Node.js (or any server-side tech)

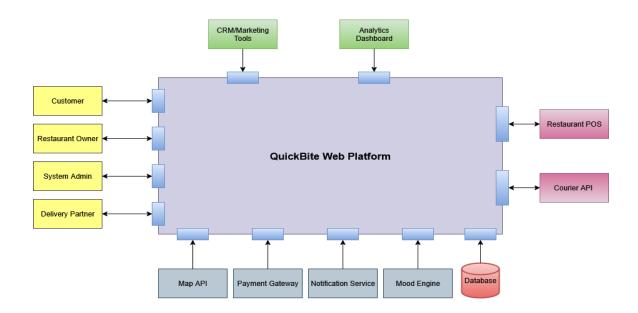
• **Database:** MySQL/PostgreSQL

• Other Services: Payment Gateway, Location API

2. Architectural Design

Context Diagram

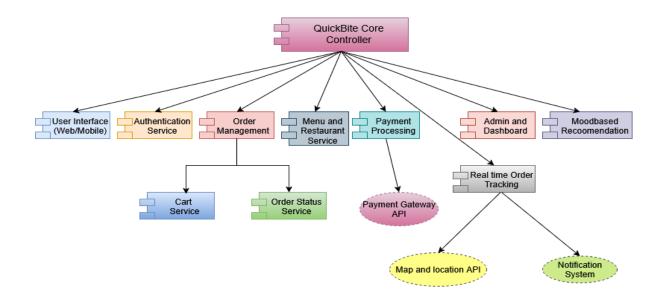
The system interacts with customers, restaurants, delivery staff, admin, and external services (payment gateway, maps).



Architectural Context Diagram

Top-Level Components

- **UI Layer:** Web pages for customers, restaurants, admin, and delivery staff.
- **Application Layer:** Handles core logic like order processing and menu management.
- Data Access Layer: Performs all database operations.
- **Database:** Stores user, order, and menu data.
- External Services: Payment gateway and map API.

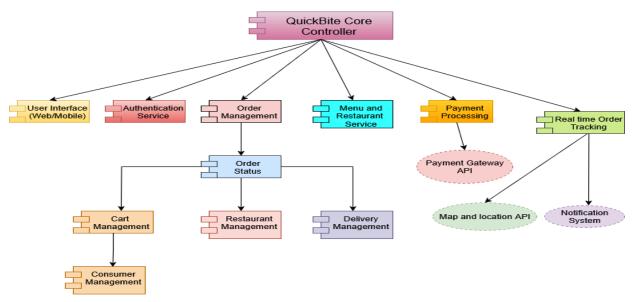


Top-Level Component Diagram

Instantiation of Components

Each component has specific roles:

- **UI Layer:** Interfaces for browsing, ordering, and managing menus.
- **Application Layer:** Handles user login, order lifecycle, and delivery assignments.
- Data Access Layer: CRUD operations for all entities.
- **Database:** Persistent storage for users, orders, and menus.
- External Services: Secure payment and location tracking.



Instantiations of the System

3. Component-Level Design

Design Components

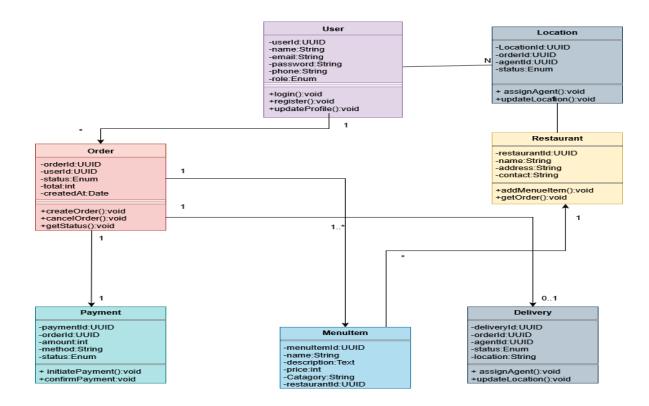
Main classes:

- User (Parent Class): Customer, Restaurant, Delivery, Admin inherit from this.
- **FoodItem:** Represents menu items.
- Order & OrderItem: Handle ordering process.
- Cart: Manages selected items.
- **Review:** Customer feedback.

Class Diagram

Shows relationships:

• Users place Orders, Restaurants have FoodItems, Orders have OrderItems and more.

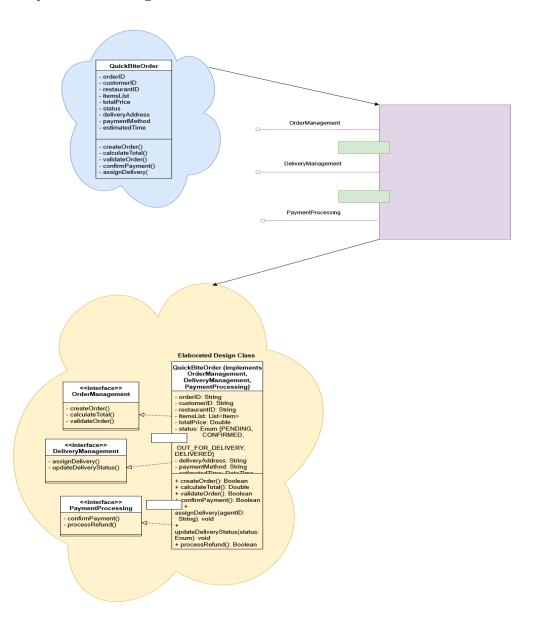


Class Diagram

Elaboration of Design Components

The diagram shows the **QuickBiteOrder** class that handles orders, delivery, and payment.

- Stores details: orderID, customerID, itemsList, totalPrice, status.
- Main actions: createOrder(), calculateTotal(), confirmPayment(), assignDelivery().
- Uses three interfaces: **OrderManagement**, **DeliveryManagement**, **PaymentProcessing**.

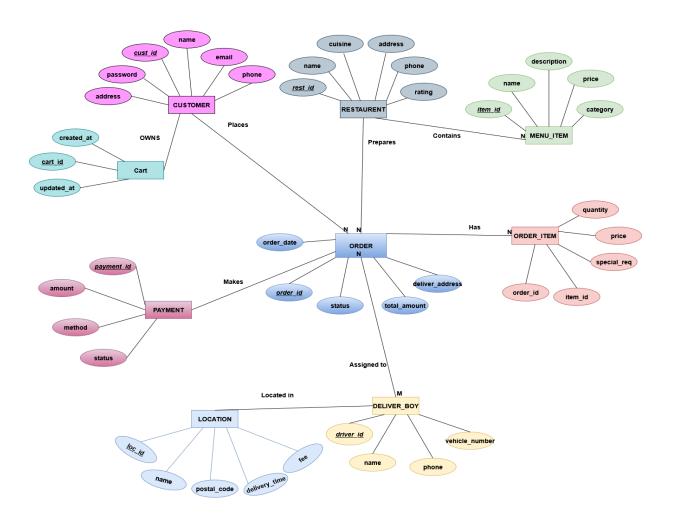


Elaboration Design Component

Database Design

Entities: Users, Restaurants, FoodItems, Orders, OrderItems, Reviews **Tables:**

- Users (userId, name, email, password, type)
- Restaurants (restaurantId, name, cuisine)
- FoodItems (foodId, restaurantId, name, price)
- Orders (orderId, customerId, status)
- OrderItems (orderItemId, orderId, foodId, quantity) ,etc

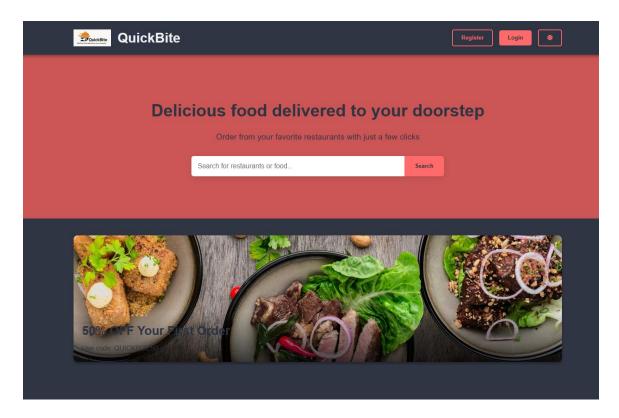


4. User Interface Design

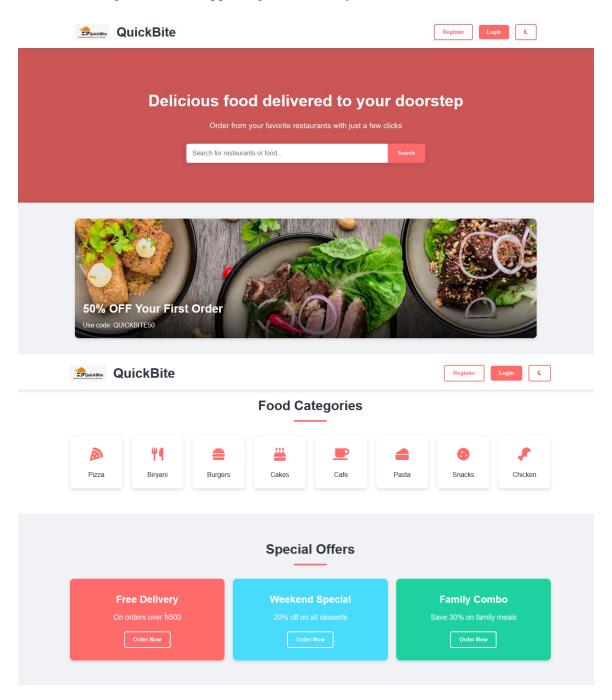
Screens

- Home Page: Search bar, offers, featured restaurants.
- **Login/Register:** For all roles.
- Menu Page: View and select food.
- Cart Page: Items with checkout.
- Admin Dashboard: Manage users and restaurants, etc.

This is a Dark mode of hero section.



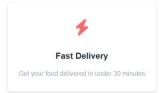
From here in light mode full app design till 26th July 2025.

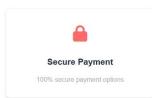


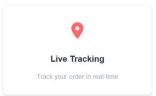


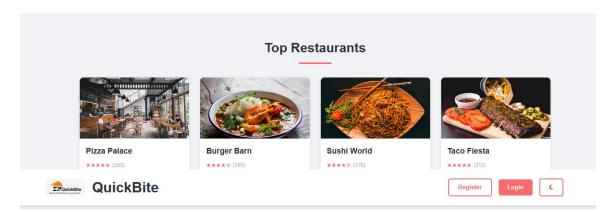


Why Choose QuickBite?

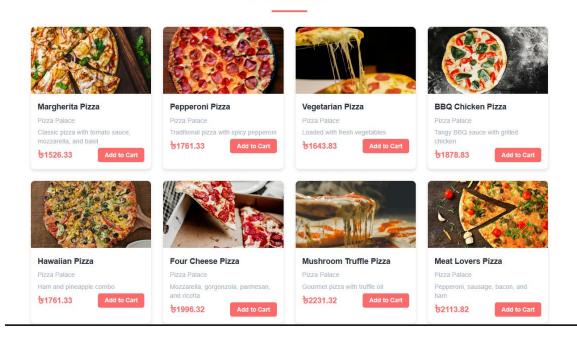








Pizza Items











Cakes Items



Chocolate Cake

Sweet Delights

Rich chocolate cake with fudge icing



Red Velvet Cake

Sweet Delights

₺2701.32 Add to Cart



Cheesecake

Sweet Delights New York style chees

৳1996.32 Add to Cart



Black Forest

Sweet Delights

Chocolate cake with cherries and

₺2583.82

Add to Cart



Tiramisu

Italian coffee-flavored d

Add to Cart ₺2231.32



Carrot Cake

Sweet Delights With cream cheese frosting and

to 2466.32

Add to Cart



Lemon Drizzle Cake

Sweet Delights

Tangy lemon glaze on moist cake ৳2113.82



Victoria Sponge

Classic British cake with jam and

₺2231.32

Register



QuickBite QuickBite

Add to Cart



Opera Cake

French layered coffee and chocolate

t2936.32

Add to Cart



Light and airy sponge cake ₺2348.82



Fruit Cake

b2701.32

Dense cake with dried fruits and nuts Add to Cart



Angel Food Cake

Light sponge cake with whipped

₽2113.82

Add to Cart



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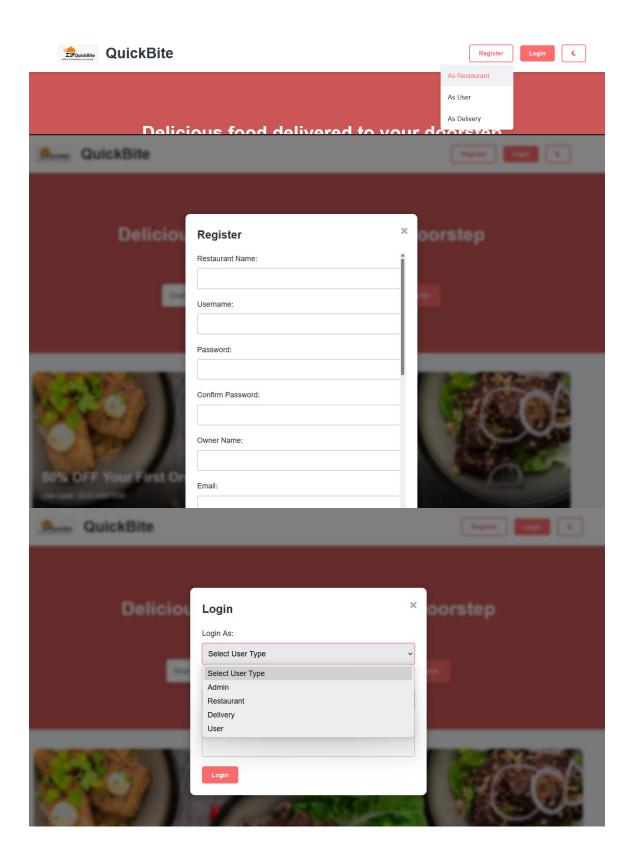
Contact Us

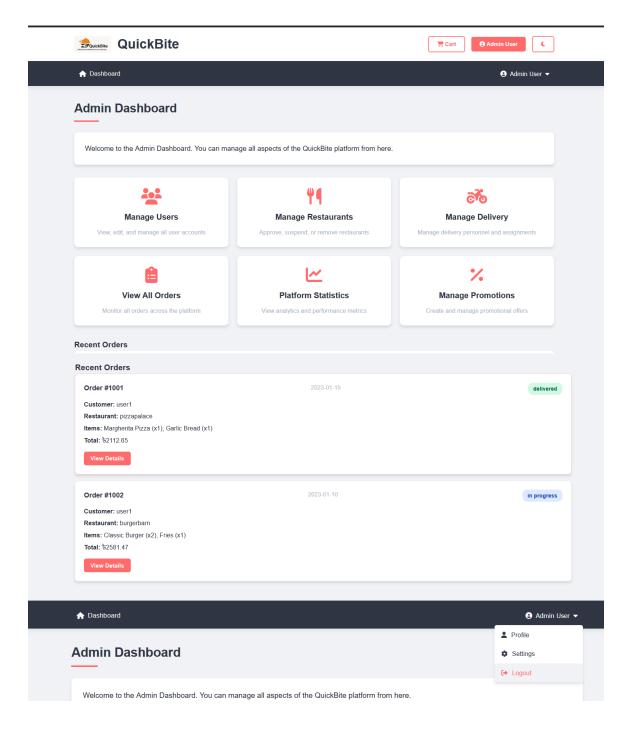
• 123 Food Street, Foodville

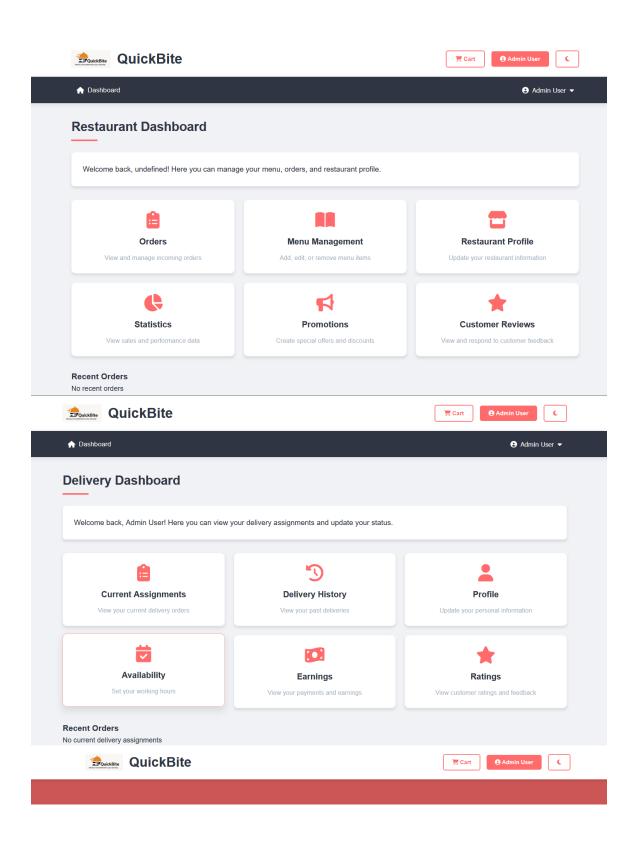
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Navigation Flow

• **Customer:** Home \rightarrow Browse \rightarrow Cart \rightarrow Checkout \rightarrow Track Order

• **Restaurant:** Dashboard → Manage Menu → View Orders

• **Delivery:** Login → Accept Order → Update Status

• **Admin:** Login → Manage Everything

5. Conclusion

QuickBite provides a complete solution for online food delivery. It ensures easy ordering for customers, efficient menu and order management for restaurants, and smooth delivery operations. With a scalable design, secure architecture, and user-friendly interface, QuickBite aims to deliver a seamless and reliable experience for all stakeholders.