

Detailed Design Document: Foodie

1. Introduction

1.1 Purpose

- This document serves to provide a comprehensive overview of the design and architecture of Foodie, outlining its features, functionality, and technical specifications.

1.2 Scope

- Foodie is a mobile application designed to streamline the food ordering process for users. It offers a user-friendly experience for discovering restaurants, placing orders, and receiving food deliveries. Users can customize their orders, track deliveries in real-time, and receive notifications for order updates.

1.3 Objectives

- Provide an intuitive interface for food selection and ordering.
- Implement robust security measures to protect user data and transactions.
- Ensure scalability to handle increased order volumes and restaurant partnerships.

2. System Overview

2.1 System Architecture

- Foodie follows a client-server architecture, with a mobile app serving as the client and a back-end server handling order processing, restaurant communication, and user authentication.

2.2 Key Features

- User registration and authentication
- Restaurant discovery with menu browsing
- Customizable order placement
- Real-time order tracking
- Secure payment gateway integration

2.3 User Roles

- Guest
- Registered User

2.4 Technologies Used

- Front-end: React Native
- Back-end: Node.js
- Database: MongoDB
- Authentication: JWT

3. Database Design

3.1 Entity-Relationship Diagram

- User Entity:
 - Username: User's identification
 - Email: User's communication address
 - Password: Securely stored for authentication

Orders Entity:

- OrderID: Unique identifier for each order
- UserID: Foreign key linking to the User entity
- RestaurantID: Foreign key linking to the Restaurant entity
- Items: Details of the ordered items
- TotalAmount: Total cost of the order
- OrderStatus: Current status of the order (e.g., confirmed, preparing, delivered)

Restaurant Entity:

- RestaurantID: Unique identifier for each restaurant
- Name: Restaurant name
- Menu: List of items available for order
- Location: Restaurant's address

4. Deployment

- The Foodie app will be deployed on platforms like the Apple App Store and Google Play Store, ensuring widespread accessibility and seamless updates for users..