

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..