Requirement Analysis for an AirCNC

Introduction

This document outlines the requirement analysis for developing a web application named AirCNC. The objective is to create a platform that facilitates property rentals, providing a seamless experience for both hosts and guests. This analysis covers functional requirements, non-functional requirements, and the technology stack needed for this project.

Functional Requirements

1. User Authentication

- Sign Up/Sign In: Users must be able to register using email or social media accounts.

- Profile Management: Users can manage their personal information and settings.

2. Property Management (For Hosts)

- Listing Creation: Hosts can create property listings with descriptions, photos, and pricing.

- Manage Bookings: Hosts should have a calendar view of all upcoming bookings.

3. Search Functionality (For Guests)

- Search Filters: Guests can filter properties by location, price range, amenities, and availability dates.

- Property Details Page: Each listing should have detailed information including photos, reviews, and host information.

4. Booking Management

- Reservation System: Guests can book properties and receive confirmation notifications.

- Cancellation Policies: Clear guidelines on cancellation terms must be provided.

5. Payment Processing

- Secure Payment Gateway: Integration with payment systems to handle transactions securely.

- Transaction History: Users can view their past transactions and booking history.

6. Review System

- Ratings and Feedback: Guests can leave reviews for properties they have stayed in, enhancing trust within the platform.

Technology Stack

To build a this web application, the following technology stacks might be used :

- Frontend Technologies:

- Programming Languages: JavaScript

- Frameworks: React.js, React Router

- Markup Languages: HTML5, CSS3, Tailwind

- Backend Technologies:

- Frameworks: Node.js

- Database Management Systems: MongoDB, Firebase

- Payment Processing: Stripe

Conclusion

This requirement analysis provides a comprehensive overview of what is needed to develop an Airbnb-like web application. By focusing on both functional and non-functional requirements, along with a robust technology stack, the project aims to deliver a high-quality platform that meets the needs of both hosts and guests effectively.