My Rent Apartment - Project Documentation

1. Introduction

My Rent Apartment is a web-based platform designed to simplify the process of listing, searching, and managing rental apartments. Built using Node.js, Express, MongoDB, Bootstrap, and custom CSS, the platform ensures a smooth and responsive experience for users. This documentation outlines the features, database schema, and structure of the project.

2. Features

- User Registration & Authentication (Passport.js) - Apartment Listings with images, price, city, and location - OTP-based email verification - Review system for listings - Chat system between registered users - Geolocation support for listings (latitude & longitude) - Responsive design using Bootstrap and CSS
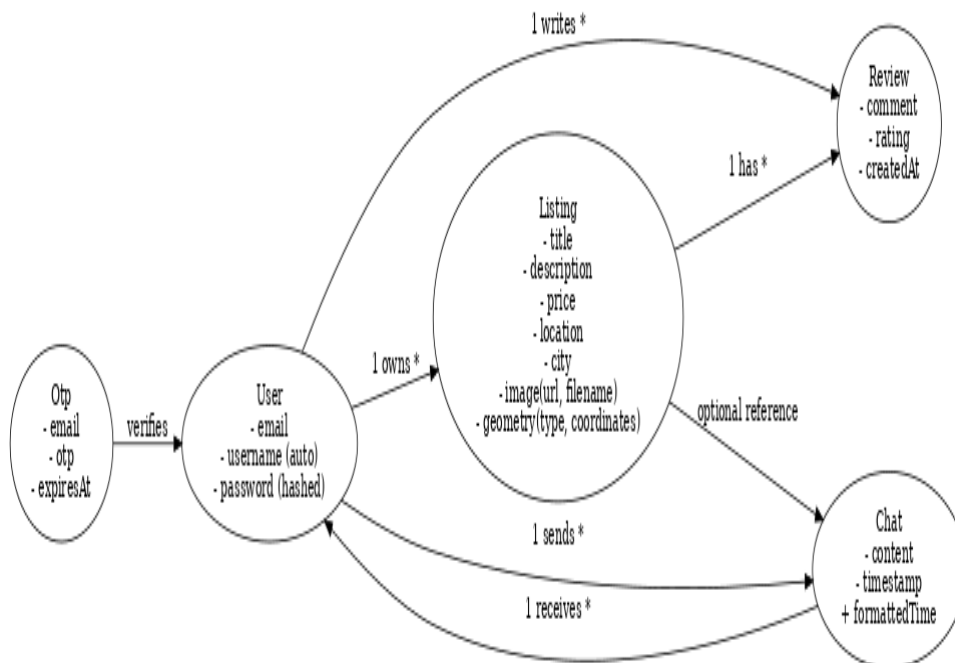
3. Database Design

The project uses MongoDB as the database. The following collections are implemented: - User: Stores user account details (email, username, hashed password) - Listing: Stores apartment details (title, description, price, location, city, image, owner, reviews, geometry) - Review: Stores ratings and comments related to listings - Chat: Stores messages exchanged between users - OTP: Stores one-time password for email verification

4. Entity Relationship Diagram (ERD)

Below is the ERD diagram representing the database schema:

5. Conclusion

My Rent Apartment is a complete rental management solution for both apartment owners and renters. With a clean architecture, optimized queries, and user-friendly features, it is designed to be

scalable and secure.