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PROJECT REPORT

HOUSE RENT APP USING MERN STACK



TEAM MEMBERS

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Project Overview

Purpose:

To streamline the property rental process by providing a platform for renters, owners, and administrators to manage and interact effectively.

Features:

(a) For Renters:

- Account creation and login.
- View available properties with detailed information.
- Request bookings and track their status.

(b) For Admins:

- User approval and management.
- Manage properties and bookings.

(c) For Owners:

- Account activation upon admin approval.
- CRUD operations on properties.
- Update property availability and booking status.

Architecture

Frontend:

Built using React.js with Material UI for a responsive and user-friendly interface. Axios is used for API integration.

Backend:

Developed with Node.js and Express.js to handle business logic and API endpoints.

Database:

MongoDB stores user data, property details, and booking records. JWT is used for secure user authentication.

Setup Instructions

Prerequisites:

- Node.js (preferably LTS version)
- MongoDB (local installation or cloud-based service like MongoDB Atlas)

Installation:

1. Clone the repository:

git clone

https://github.com/Navenesvar/Naan_Mudhalvan_MERN_Stack_Project_House_Rent_App.git

2. Backend Setup:

Run the following commands

`cd Naan_Mudhalvan_MERN_Stack_Project_House_Rent_App/backend`

npm install

npm start

The backend will run on <http://localhost:8000>.

3. Frontend Setup:

Run the following commands

`cd Naan_Mudhalvan_MERN_Stack_Project_House_Rent_App/frontend`

npm install

npm start

The frontend will run on <http://localhost:3000>.

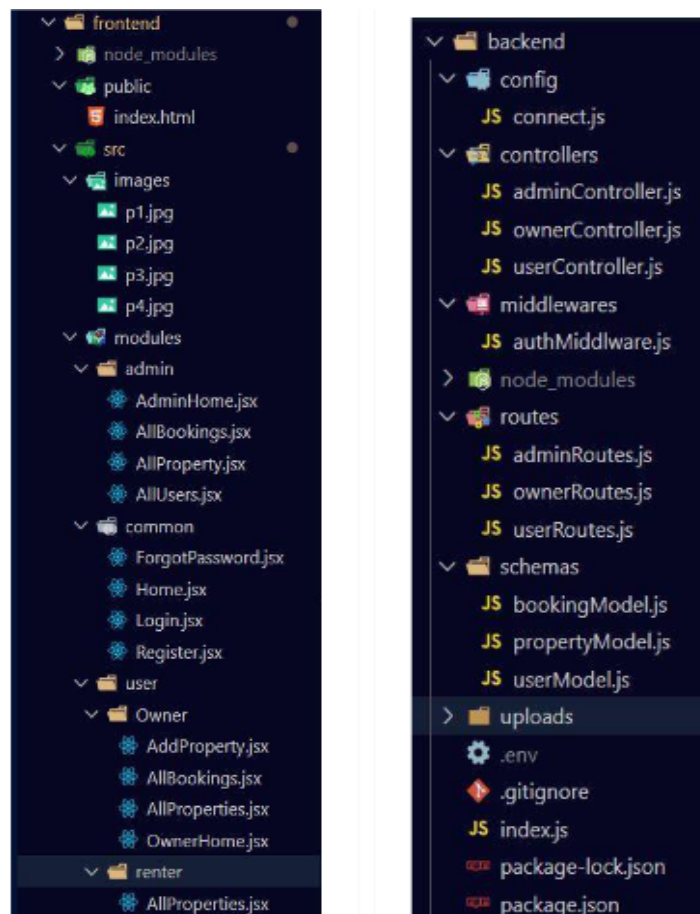
Folder Structure

Frontend:

_Organized with components for views and hooks for state management.

Backend:

Well-structured with routes, models, and controllers for scalability.



Running the Application

Frontend:

Run the following command in the frontend directory:

```
npm start
```

Backend:

Run the following command in the backend directory:

```
npm start
```

API Documentation

Endpoints:

- POST /api/auth/register: User registration.
- POST /api/auth/login: User login with JWT authentication.
- GET /api/properties: Fetch available properties.
- POST /api/bookings: Create a booking request.

More detailed API documentation available in the project repository.

Authentication

Authentication is handled using JSON Web Tokens (JWT). Each user is assigned a token upon login to securely interact with the application.

User Interface

RentEase

[Home](#)

[Login](#)

[Register](#)

Sign up

Renter Full Name/Owner Name

O2

Email Address

Password

p@123
p@12345

User Type

root@gmail.com
o@gmail.com
o1@gmail.com
r@gmail.com

SIGN UP

Already have an account? [Sign In](#)

RentEase

[Home](#)

[Login](#)

[Register](#)

Sign In

Email Address

o2@gmail.com

Password

SIGN IN

Forgot your password? [Click here](#)

Don't have an account? [Sign Up](#)

Property type

Residential

Property Ad type

Rent

Property Full Address

mun park

Property Images

Choose Files r1.jpg

Owner Contact No.

6373839292

Property Amt.

30000

Additional details for the Property

Property for rent

Submit form

Want to post your Property? [Register as Owner](#)

Filter By: Address

All Ad Types

All Types

photos


Location:
villa 1 Nungambakkam Chennai

Property Type:
residential

Ad Type:
rent

For more details, click on get info

Get Info




Location:
villa 1 Meenambakkam Chennai

Property Type:
residential

Ad Type:
rent

For more details, click on get info

Get Info




Location:
JS Park

Property Type:
residential

Ad Type:
rent

For more details, click on get info

Get Info



Location:
JS tower

Property Type:
residential

Ad Type:
rent

For more details, click on get info

Get Info

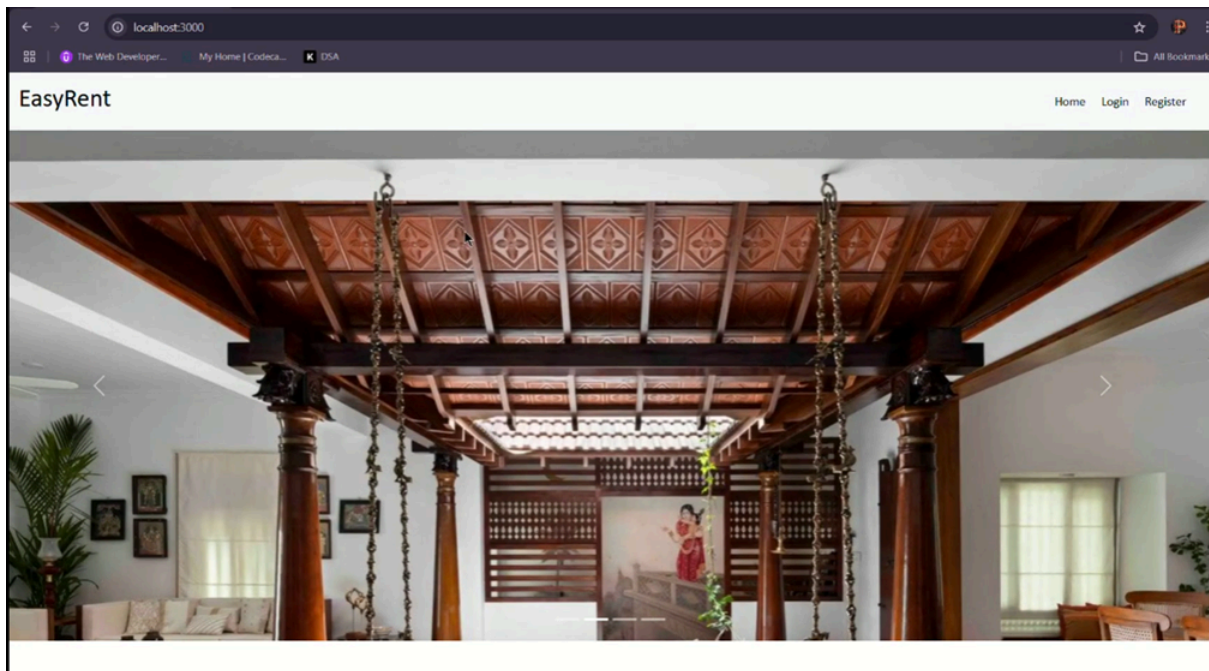
Testing

Testing involves manual validation of user stories and key functionalities, such as booking requests and property management.

Screenshots or Demo

To understand the functionality and user interface of the House Rent App, please refer to the demo video below:

[Demo Video - House Rent App \(MERN Stack\)](#)



Known Issues

Example:

Booking status updates may take a moment to reflect due to caching.

Future Enhancements

- Add payment gateway integration for seamless rental transactions.
- Implement advanced property search filters (e.g., location, price range).
- Enable multi-language support for wider reach.