Project Documentation: Chennai PG Finder

*(A MERN Stack-Based PG/Hostel Finding Platform for Chennai Bachelors)*

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**1. Introduction**

**Project Name**

**Chennai PG Finder**  
*Tagline*: *"Find Safe, Affordable PGs & Hostels for Bachelors in Chennai."*

**Why This Project?**

* Chennai attracts **thousands of students/professionals** yearly, but finding a **verified, budget-friendly PG** is chaotic.
* Existing platforms (NoBroker, NestAway) lack **bachelor-centric filters** (e.g., gender-specific, food options).
* **No centralized, scam-free platform** for Chennai PGs.

**Target Audience**

* **Students/Professionals** (18-30 years) moving to Chennai.
* **Women/Men** seeking gender-specific stays.
* **PG Owners** wanting legit tenants.

**2. Purpose & Usefulness**

**Problem Statement**

* Newcomers face **fraudulent listings, no price transparency, and safety concerns**.
* Time wasted visiting **unverified PGs**.

**Solution Offered**

* **Verified Listings**: Police-verified PG owners.
* **Advanced Filters**: Budget, location, amenities, gender-specific.
* **User Reviews**: Avoid scams via peer feedback.

**3. Key Features**

**User Side (Frontend)**

* **Search & Filters**: Location (OMR, Anna Nagar), rent range, food included, etc.
* **PG Profiles**: Photos, amenities (Wi-Fi, AC), contact owner (WhatsApp/chat).
* **Map View**: Google Maps integration.
* **Ratings & Reviews**: User-generated feedback.

**Admin Side (Backend)**

* **PG Owner Portal**: Submit listings (admin-approved).
* **Admin Dashboard**: Verify/reject listings, handle complaints.
* **Payment Gateway**: For premium listings (Razorpay).

**Future Scope**

* **Mobile App** (React Native).
* **Community Forum**: Roommate finder, Q&A.
* **AI Chatbot**: Instant PG queries.

**4. Technical Stack**

**Languages**

* **Frontend**: JavaScript (React.js), HTML5, CSS3
* **Backend**: JavaScript (Node.js)
* **Database**: NoSQL (MongoDB)

**Frameworks & Libraries**

* **Frontend**: React.js, Redux (state management), Axios (API calls)
* **Backend**: Express.js, Mongoose (MongoDB ODM)
* **Styling**: Bootstrap 5, CSS Modules
* **APIs**: Google Maps API, Twilio (SMS), JWT (authentication)

**Styling**

* **Responsive Design**: Bootstrap grid + Flexbox.
* **UI Kit**: Font Awesome (icons), Google Fonts.

**5. Development Roadmap**

**Phase 1 (MVP - 4 Weeks)**

* User auth (JWT).
* Basic PG listings + filters.
* Admin dashboard skeleton.

**Phase 2 (Advanced - 2 Weeks)**

* Map integration.
* Payment gateway.
* Review system.

**6. Conclusion**

This project solves a **real-world problem** with scalable tech (MERN). It’s **portfolio-friendly** and has **monetization potential** via ads/premium listings.