**HomiFi (PG Management System)**

**ABSTRACT**

The PG Management System is a web-based platform designed to simplify the process of finding and managing paying guest accommodations for both tenants and PG owners. This system bridges the gap between people searching for PGs and those offering them, eliminating the traditional hassles of in-person inquiries, lack of verified details, and poor communication. The platform provides a seamless interface for tenants to search and book PGs while allowing owners to manage listings and tenant interactions, with an admin module ensuring the security and integrity of the system.

**PROBLEM STATEMENT**

Finding a PG accommodation is often a time-consuming and inefficient process for tenants. Similarly, PG owners struggle with maintaining availability, dealing with unverified bookings, and organizing tenant records manually. There is a lack of a centralized system where PGs can be browsed, booked, and managed in a transparent and user-friendly manner. The need arises for a reliable platform that digitizes this entire workflow, making it easier for both parties and increasing accountability through admin oversight.

**PROJECT FRAMEWORK**

Frontend: ReactJS

Backend: Firebase (Authentication, Firestore, Hosting)

**HARDWARE REQUIREMENTS**

Operating System: Windows 10 / Windows 11

Hard disk: Minimum 40 GB

RAM: Minimum 4 GB

Processor: Minimum Intel i3 or equivalent

Peripherals: Keyboard and Mouse

**MODULES USED**

**1. Guest User Module**

* View public PG listings
* Apply filters (location, rent, amenities)
* Register or login to initiate bookings

**2. Tenant Module**

* Browse and filter PGs
* View PG details, amenities, availability, and pricing
* Send booking requests
* Manage current bookings and view history
* Submit reviews and ratings post-stay

**3. PG Owner Module**

* Register/login to access dashboard
* Create and manage PG listings with photos, rent, and facilities
* Accept/reject tenant requests
* View current and past tenants
* Update or delete listings as needed

**4. Admin Module**

* Approve or reject new PG owner registrations
* Monitor all listings for authenticity
* Handle abuse reports and user issues
* View analytics (bookings, popular PGs, etc.)
* Ban fake or suspicious users

**5. Booking Module**

* Real-time booking status updates
* Manage booking requests (pending, confirmed, cancelled)
* Show booking history in dashboards for both tenants and owners

**KEY FEATURES**

* Secure Login and Role-based Access
* Real-time Booking Updates
* Dashboard for PG Owners and Tenants

**FUTURE SCOPE**

* + Review and Rating System to Ensure Transparency
  + Geolocation-based Search for Tenants

**BIBLIOGRAPHY**

* + www.geeksforgeeks.org
  + www.google.com
  + ChatGPT
  + Firebase Documentation
  + ReactJS Official Docs