**Room/PG Searching Platform [ StayEase ]**

**Project Overview:**

Room/PG Searching Platform is a dual-platform application (React web app + React Native mobile app) that allows users to search, view, and book available rooms and PG accommodations. The backend is powered by Java Servlets and JSPs, booking flows, and admin management. The platform is designed for both tenants and landlords, promoting a seamless booking and property management experience across devices.

**Functional Requirements**

**For Tenants (Web & Mobile):**

* **Dashboard:**
  + View featured listings and quick links
  + See upcoming bookings and saved properties
* **Search & Filters:**
  + Search PGs/rooms by city, area, or landmark
  + Filter by price, occupancy type, gender, and availability
* **Room/PG Details:**
  + View full listing: images, description, rent, rules, owner info
* **Booking System:**
  + Send a booking or visit request
  + See booking status (Pending / Approved / Rejected)
  + Cancel or reschedule a request
* **Favourites / Wishlist:**
  + Save listings for quick access later
* **Complaint or Service Request:**
  + Submit a maintenance or service issue to landlord
  + View status (Open / In Progress / Resolved)
* **Reviews:**
  + Rate and review rooms/PGs after staying
* **Profile Management:**
  + View and edit user profile

**Landlord Portal (Web & Mobile):**

* **Login:**
  + Landlords log in using their own credentials to manage only their own properties.
* **Manage Listings:**
  + Add, edit, or delete properties they own
  + Upload images, set rent, amenities, and availability
* **Booking Requests:**
  + View and respond (approve/reject) to booking or visit requests from tenants
  + See booking history and tenant contact details
* **Complaints/Requests from Tenants:**
  + View complaints for their own properties
  + Update status (e.g., Resolved, Pending)
* **Basic Stats:**
  + See how many bookings their listings got
  + View tenant feedback

**Admin Portal (Web Only):**

* **Login:**
  + Protected admin login
  + Full control over all system data
* **User Management:**
  + View or remove tenants/landlords
* **Platform-Wide Listings Control:**
  + View and moderate any property listing
  + Remove fake/abusive listings
* **Global Complaint Handling:**
  + View all complaints
  + Intervene or mark resolved if needed
* **Analytics & Reporting:**
  + Total listings
  + Most active landlords
  + Bookings per month
  + Most-searched locations
* **System Configuration :**
  + Set rules, upload policies, or post global announcements

**Technical Stack**

**Frontend:**

* React
* React Native (Mobile app)
* CSS for styling
* JavaScript

**Backend:**

* Java Servlets + JSP
* MySQL database
* MVC structure: JSP for views (admin panel), Servlets as controllers, DAOs for data access

**Database Entities:**

* User (Tenant/Landlord)
* Property (Room/PG)
* Booking
* Complaint
* Review

**Project Workflow:**

**1. Tenant Journey (Web & Mobile):**

* **Login / Dashboard:**
  + Tenant logs in and is directed to their dashboard
  + Dashboard shows saved properties, upcoming bookings, and featured listings
* **Search & View Rooms/PGs:**
  + Tenant searches by area or city
  + Listings are shown with filters (price, type)
  + Detailed page displays images, description, rent, and availability
* **Send Booking or Visit Request:**
  + Tenant selects preferred dates and submits a request to visit or book a property
  + Confirmation is shown after request submission
* **Track Booking Status:**
  + Tenant can view the status of all requests (Pending, Approved, Rejected)
* **Submit Complaints:**
  + Option to raise service or maintenance requests to the landlord
* **Manage Profile:**
  + Tenant can view and edit their personal details (name, contact info, etc.)

**2. Landlord Journey (Web & Mobile):**

* **Login & Dashboard:**
  + Landlord logs in to access their personal dashboard
  + Dashboard shows their listings and recent activity
* **Manage Listings:**
  + Add, edit, or delete their own room/PG listings
  + Upload photos and update rent, availability
* **Manage Booking Requests:**
  + View incoming visit or booking requests from tenants
  + Approve or reject requests based on availability
* **View & Resolve Complaints:**
  + View complaints related to their listed properties
  + Update complaint status (e.g., Resolved, In Progress)
* **View Stats:**
  + See basic stats like number of bookings and tenant reviews

**3. Admin Journey (Web Only)**

* **Admin Login & Dashboard:**
  + Admin logs in through a protected portal with full platform access
  + Dashboard shows overall activity and control panels
* **User Management:**
  + View, verify, or remove tenant and landlord accounts
* **Platform-Wide Listings Control:**
  + View and moderate all listings
  + Remove or flag fake/abusive listings
* **Global Complaint Handling:**
  + View all complaints across the platform
  + Intervene and mark issues resolved if landlords don't act
* **Analytics & Reporting:**
  + Access overall stats like:
    - Total listings
    - Most active landlords
    - Bookings per month
    - Most-searched locations
* **System Configuration:**
  + Upload policies or post global announcements to users

**Project Deliverables:**

**1. Source Code**

* **Web Client:**  
  stayease-web/ folder containing React components for user interface, navigation, service integrations, and styling.
* **Mobile Client:**  
  stayease-mobile/ folder containing React Native screens, navigation setup, and API communication for mobile functionality.
* **Back End:**  
  stayease-backend/ folder containing Java Servlet and JSP files for handling business logic, booking management, and admin operations, connected with a MySQL database.
* **Structure:**  
  Clean and modular folder structure maintained across web, mobile, and backend parts for easy understanding and scalability.

**2. Documentation**

* **README.md:**  
  Includes instructions to set up and run the project (npm start / Expo start / Tomcat deployment), database schema overview, and a complete list of backend API endpoints used.
* **System Diagrams:**  
  Flowcharts or UML diagrams explaining the user journey, admin functionality, and how web and mobile apps interact with the backend system.

**3. Presentation / Demonstration**

* **Live Demo Includes:**
  + **For Users (Tenants):**
    - Search and view available rooms/PGs
    - Submit booking or visit requests
    - Track booking status and manage profile
  + **For Admins/Landlords:**
    - Login to admin portal
    - Add/edit room or PG listings
    - Approve/reject booking requests
    - View user complaints and platform activity reports
* **Summary:**  
  The final presentation will outline the overall architecture, technology stack used (React, React Native, JSP, Servlets, MySQL), all key features implemented, and the project timeline.