**Pain Points Addressed**

1. **Fragmented Rental Process:**

* **Pain:** Prospective tenants often face multiple disconnected channels, websites, in-person visits, and phone calls to search, contact, and book property rentals.
* **Solution:** Our system centralizes the entire rental process by providing:
  + A **user-friendly web interface** (built with React) that enables tenants to search and filter listings.
  + **User authentication and profiles**, allowing seamless interaction and secure booking requests.
  + A **dashboard for property owners** to manage their listings and booking requests, all in a single, integrated platform.

1. **Inefficient Communication Between Owners and Tenants:**

* **Pain:** Communication between property owners and potential tenants is often unstructured and delayed.
* **Solution:**
  + The platform facilitates **direct communication** by displaying property owner details only after authentication.
  + Integration of email links and contact forms (protected by login) enhances **responsiveness and security**.

1. **Lack of Verification and Security:**

* **Pain:** Traditional rental platforms can have issues with unverified accounts and insecure booking processes.
* **Solution:**
  + Our system uses **JWT authentication** to verify users, ensuring only registered and approved users can make booking requests or manage listings.
  + **Role-based access control** restricts the functionality available to tenants versus property owners.
  + Sensitive actions (like contacting an owner or submitting a booking request) are protected behind secure routes, enforcing the correct workflow.

1. **Unreliable Data and Information:**

* **Pain:** Prospective tenants sometimes get outdated or incomplete property information from multiple sources.
* **Solution:**
  + The backend integrates with a **centralized PostgreSQL database** that stores up-to-date property listings, along with detailed information (images, location, price, amenities).
  + **Cloud-based hosting (Heroku/Render)** ensures high availability and reliable access to data.

1. **Poor User Experience on Mobile Devices:**

* **Pain:** Many rental platforms are not optimized for mobile, causing a poor user experience for busy renters and owners on the go.
* **Solution:**
  + The front end is built using React with a **responsive design**, ensuring an optimal experience on desktops, tablets, and smartphones.
  + Interactive UI elements like **image sliders, dynamic search filters, and clear call-to-action buttons** provide a modern and intuitive interface.

1. **Time-Consuming Maintenance and Updates:**

* **Pain:** Manually updating rental listings and responding to booking requests can be overwhelming for property owners using traditional methods.
* **Solution:**
  + The property owner dashboard allows users to **create, edit, and delete listings** easily.
  + Automated backend processes streamline the **booking request workflow**, reducing manual administrative overhead.
  + Real-time notifications and status updates help users keep track of their rental process more efficiently.

7. **Deployment Complexity and Maintenance:**

* **Pain:** Deploying and maintaining a full-feature Java backend can be challenging for small teams without dedicated DevOps resources.
* **Solution:**
  + Our project leverages modern cloud platforms like **Heroku or Render**, which simplify deployment, scaling, and maintenance.
  + **Continuous integration and deployment (CI/CD)** pipelines reduce the manual effort required to update the application.