Tolet Tracking

Real Time Project

Bachelor of Technology (B.Tech – II Year / II Semester)

in

Computer Science and Engineering

By

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ACE Engineering College

An AUTONOMOUS Institution

NBA Accredited B. Tech Courses, Accorded NAAC 'A' Grade

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Certificate

This is to certify that the Real Time project work entitled "Tolet Tracking" submitted by P.Kruthika Reddy(22AG1A05H9), J.Sree Balaji (22AG1A05F1), K.Sai Vamshi(22AG1A05G2) in partial fulfillment of Real Time Project work during the academic year 2023-24 is a record of bonafide work carried out by them under our guidance and supervision.

Internal Guide   Project Coordinator

Mrs E.Umarani   Mr. B R Srinivasa Rao

Assistant Professor   Assistant Professor

Head of the Department

Dr. M. V. Vijaya Saradhi

Professor and Head

Department of CSE

Acknowledgement

We would like to express our gratitude to all the people behind the screen who have helped us transform an idea into a real time application.

We would like to express our heart-felt gratitude to our parents without whom we would not have been privileged to achieve and fulfill our dreams.

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Real Time Project

INDEX

Abstract

This abstract introduces a novel solution in the form of a To-let Checking Website, aimed at simplifying the process of assessing rental properties for potential tenants.

The To-let Checking Website offers a comprehensive platform where users can access verified information about rental properties, including photographs, amenities, rental rates, and landlord details. Utilizing a user-friendly interface, the website enables users to search for properties based on their preferences and requirements, such as location, budget, and property type. Key features of the To-let Checking Website include a rating and review system, allowing previous tenants to share their experiences and insights.

Finding and managing rental properties can be a time-consuming and complex process for both landlords and tenants. Landlords struggle to keep track of vacant units, advertise effectively, and screen potential tenants. Tenants face challenges finding suitable rentals, managing applications, and staying updated on new listings.

Moreover, the website incorporates advanced verification mechanisms to ensure the authenticity of listed properties and landlords, thereby mitigating the risks associated with fraudulent listings and unscrupulous individuals.

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Feasibility Study

A to-let tracking system has the potential to streamline the rental process for both landlords and tenants.

1.Technical Feasibility:

• Evaluate the technical requirements for developing the tracking system, including software, hardware, and infrastructure.

2.Economic Feasibility:

• Determine the initial investment required for developing the system, including software development, hardware procurement, and any associated costs like licensing fees or hiring professionals.

3.Operational Feasibility:

• Evaluate how the system will be implemented and integrated into existing workflows of landlords, property managers, and tenants.

4.Legal and Regulatory Feasibility:

•Ensure that the tracking system does not facilitate discriminatory practices in rental property advertising, tenant screening.
•Implement safeguards to protect tenant rights and ensure equal access to rental opportunities for all applicants.
•Evaluate the legal requirements regarding the collection, storage, and processing of personal data related to rental properties, property managers, and tenants.
•Implement measures to safeguard sensitive information and obtain appropriate consent from users for data processing activities.

Literature Survey & Practical observation

Literature Survey:

1.Research Papers: Look for academic papers that discuss various aspects of rental property management systems, including software design, user experience efficiency, and security.

2.Industry Reports: Reports from real estate associations or consulting firms might provide insights into current trends, challenges, and best practices in the management of rental properties.

3.Online Articles and Blogs: Explore blogs, articles, and forums where professionals and enthusiasts discuss their experiences with different property management systems, share tips, and recommend tools.

4.Books: Check for books on property management, software development, and user interface design that may cover relevant topics.

5.Case Studies: Seek out case studies of successful (or unsuccessful) implementations of rental property management systems to understand real-world challenges and solutions

PRACTICAL OBSERVATION:

1.Field Visits: Visit real estate agencies or property management firms to observe how they manage rental properties, interact with tenants, and handle administrative tasks.

2.Software Demos: Attend demonstrations or request trials of existing property management
software to see how they function in practice, their user interface, features, and limitations.

3.Interviews and Surveys: Conduct interviews with property managers, landlords, and tenants to gather insights into their pain points, preferences, and requirements for a to-let management system.

4.User Testing: If possible, conduct usability tests with stakeholders to evaluate the ease of use, efficiency, and effectiveness of different management tools or software prototypes.

5.Data Analysis: Analyze available data on rental properties, such as vacancyrates, rent prices,
maintenance requests, and tenant turnover, to identify patterns and inform the design of a management system.

1. INTRODUCTION

1.1 Purpose

The purpose of a To-Let Tracking Rental Homes system is multi-faceted, aiming to address various challenges and enhance efficiency in the management of rental properties. Here are some key purposes:

1.Increased Efficiency and Transparency:

•To-let tracking aims to create a more efficient workflow. Landlords can manage vacancies, applications, and communication in one place. Tenants can search for rentals, submit applications, and pay rent conveniently.
•The platform fosters transparency by providing a central location for information sharing. while tenants can easily access lease agreements and maintenance request history.

2. Improved Decision-Making:

•This allows them to analyze market trends, optimize rental pricing, and identify high-performing properties.
•Tenants can leverage search filters to find properties that meet their specific needs and budget, making data-driven decisions about their rental choices.

3. Enhanced Tenant Quality and Reduced Vacancies:

•To-let tracking can improve tenant quality by integrating with background check services and streamlining communication. This allows landlords to make informed decisions about potential renters.
•By providing a more efficient way to list vacancies and manage applications, to-let tracking can help reduce vacancy periods, leading to increased rental income for landlords.

1.2 Scope

The scope of a To-Let Tracking Rental Homes system encompasses a wide range of functionalities and features aimed at facilitating the efficient management of rental properties. These includes:

1. Property Listing Management:
•Creation and management of property listings, including details such as location, amenities, rental rates, and availability status.

2. Tenant Management:
•Tenant onboarding, including application submission, background screening.

3. **Communication and Notification:**
    •Communication tools for landlords, property managers, and tenants to facilitate timely and transparent communication.
    •Automated notifications and alerts for lease renewals, rent payments, maintenance requests, and other important events.

4. **Analytics and Reporting:**
    •Analytics dashboard providing insights into key performance metrics, such as occupancy rate Rental homes, tenant turnover, and maintenance expenses.
    •Customizable reports and visualizations to track trends, identify opportunities for improvement, and inform strategic decision-making.

1.3 Real-Time usage and Applications

1. Instant Availability Tracking:

- Ensures that the property availability status is always current, reducing the chances of double-booking or confusion.

2. Immediate Tenant Notifications:

- Sends real-time notifications to prospective tenants about new listings or changes in availability, increasing the chances of quick occupancy.

3. Efficient Application Processing:

- Streamlines the application process by allowing landlords to review applications and respond promptly.

4. Dynamic Pricing:

- Adjusts rental prices in real time based on demand, occupancy rates, and market trends.

5. Enhanced Communication:

- Facilitates immediate communication between landlords and tenants, improving responsiveness and tenant satisfaction.

1.4 Target Audience

1. Landlords and Property Owners

- **Individual Landlords:** Those who own one or a few rental properties and need a simple, efficient way to manage them.

2. Property Management

- **Large Property Management Firms:** Firms handling extensive portfolios needing scalable solutions with advanced features like financial reporting, maintenance tracking, and tenant communicate.

3.Tenants and Prospective Renters

- **Current Tenants:** Tenants who need convenient ways to pay rent, request maintenance, and communicate with their landlords or property managers.

4. Maintenance and Service Providers

- **Maintenance Firms:** providing repair and maintenance services that need a system to receive and manage work orders.

2.Overall Description

2.1 User Interfaces & Characteristics

1. Dashboard

- **Overview:** A summary view providing key metrics such as property availability, occupancy rates, rental income, pending applications, and maintenance requests.
- **Customizable Widgets:** Allows users to personalize their dashboard to display the most relevant information.

2. Property Listings

- **Search and Filter:** Advanced search and filter options to help users find properties based on location, price, size, and amenities.

3.Communication Tools

- **Notification Center:** Real-time alerts and notifications for important updates like new applications, rent due dates, and maintenance requests.

CHARACTERISTICS:

1. User-Friendly Design

- **Intuitive Navigation:** Simple and clear navigation to ensure users can easily find and access the features they need.
- **Responsive Design:** Mobile-friendly interface that works seamlessly across different devices and screen sizes.

2. Scalability

- **Flexible Architecture:** Ability to handle an increasing number of properties and users without compromising performance.

3.Security

- **Access Controls:** User roles and permissions to control access to different parts of the system.

2.2 System Interfaces& Communication Interfaces

The system interface of a to-let tracking system should feature a user-friendly dashboard with customizable widgets for key metrics like occupancy rates and maintenance requests. Property listings should offer advanced search, filter options, and an interactive map view. Tenant management includes detailed profiles and an application tracker.

The communication interface should include an in-app messaging system for direct and group chats, real-time alerts, and customizable notifications. Email integration allows automated updates and templates for common communications. A tenant portal should facilitate announcements, feedback, and queries. Additionally, integrated voice and video call features enable seamless face-to-face communication, enhancing interaction and efficiency for all users.

3. System Analysis

3.1 Existing System& Draw backs

1.Online Portals:

- Examples include Zillow, Realtor.com, and Rent.com. These platforms offer property listings, search filters, virtual tours, tenant reviews, and rental application submissions.

2. Mobile Apps:

- Apps like Zillow Rentals, Apartments.com, and RentHop provide mobile-friendly interfaces, push notifications, in-app messaging, and real-time updates for rental properties.

3. Property Management Software:

- Tools such as Buildium, AppFolio, and TenantCloud offer comprehensive property management solutions, including maintenance tracking, tenant screening, and rent collection.

4.Social Media Platforms:

- Platforms like Facebook Marketplace and Craigslist enable community-driven listings and direct communication with landlords, often featuring real-time updates.

DRAWBACKS:

1. Inaccurate Listings:

- Outdated or incorrect information misleads prospective tenants, with properties often listed as available when they are not.

2. Scams and Fraud:

- Less regulated platforms like Craigslist are prone to fake listings and fraudulent landlords, making it difficult for users to verify the authenticity of listings.

3. Limited Search Filters:

- Many systems offer only basic search filters, lacking more nuanced options such as pet policies, parking availability, and lease length.

3.2 Proposed System & Overcoming draw backs

1. Verified Listing Platforms:

- Implementation of a robust verification process for landlords and properties to ensure the authenticity and accuracy of listings.

2. Advanced Search Filters:

- Development of more detailed and customizable search filters, including options for pet policies, parking availability, lease length, neighborhood safety, and nearby amenities.

3. Enhanced User Interfaces:

- Design of intuitive, user-friendly interfaces for both web and mobile applications, with clear navigation and streamlined property discovery processes

Overcoming Drawbacks:

1. Inaccurate Listings:

- Outdated or incorrect information misleads prospective tenants, with properties often listed as available when they are not.

2. Scams and Fraud:

- Less regulated platforms like Craigslist are prone to fake listings and fraudulent landlords, making it difficult for users to verify the authenticity of listings.

3. Limited Search Filters:

- Many systems offer only basic search filters, lacking more nuanced options such as pet policies, parking availability, and lease length.

3.3 Team Size

- Font-End Developer/Project Manager: J.Sree Balaji
- Back-End Developer: K.Sai Vamshi
- Documentation Specialist: P.Kruthika Reddy
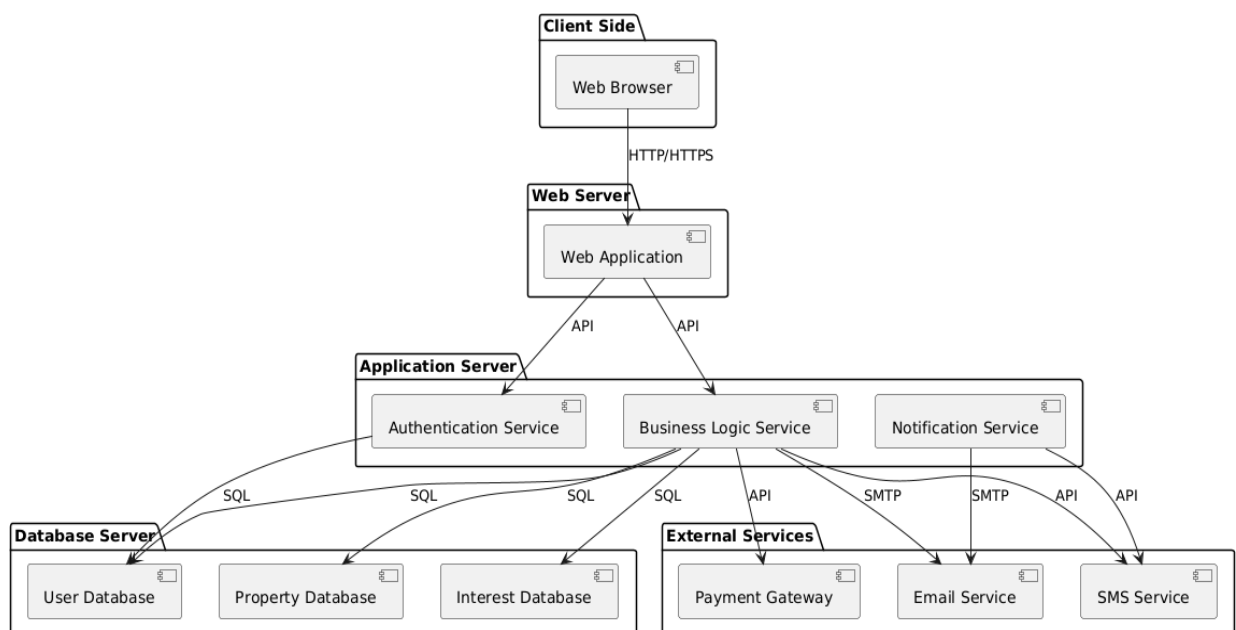
4.Software and Hardware requirements

Software:

- The system will be developed using PHP for backend development.

- Frontend will be designed using HTML, CSS, and JavaScript

for a responsive user interface.
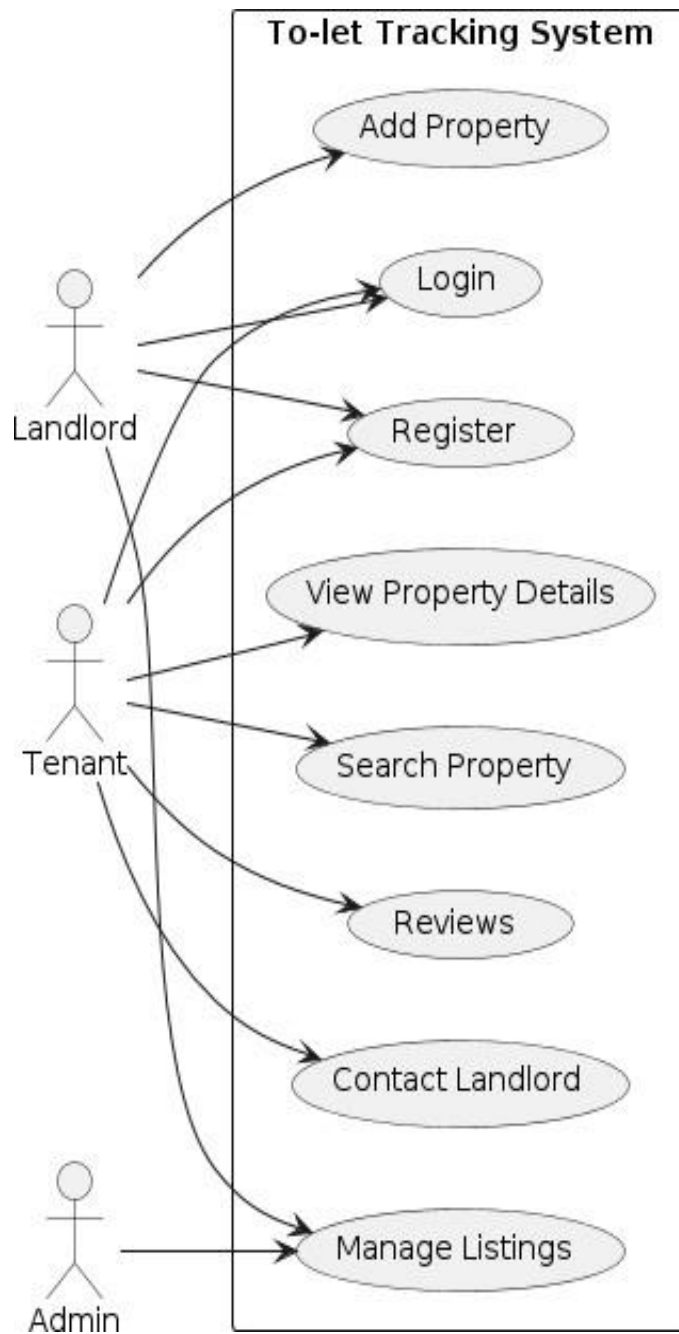
Hardware:

- A separate database server may be needed to host the database management system (e.g., MySQL,).
- Processor: Intel i5 or higher, RAM: 8GB or more, Storage: SSD with at least 256GB.

- Backup and Security: Regular backups using tools like cloud-based solutions, : SSL certificates, firewalls, and regular security audits.

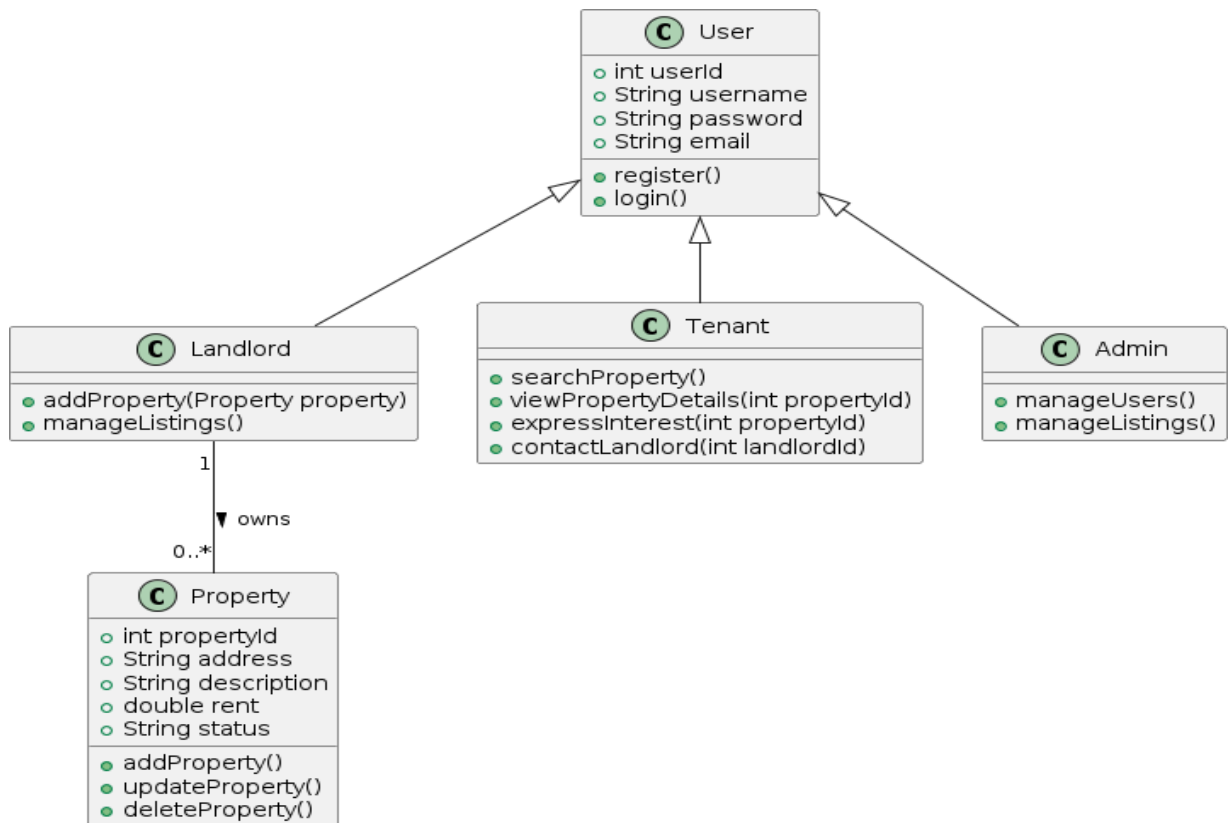## 5.Architecture Diagram / Flow Diagram / Hierarchical Chart / Pie Chart
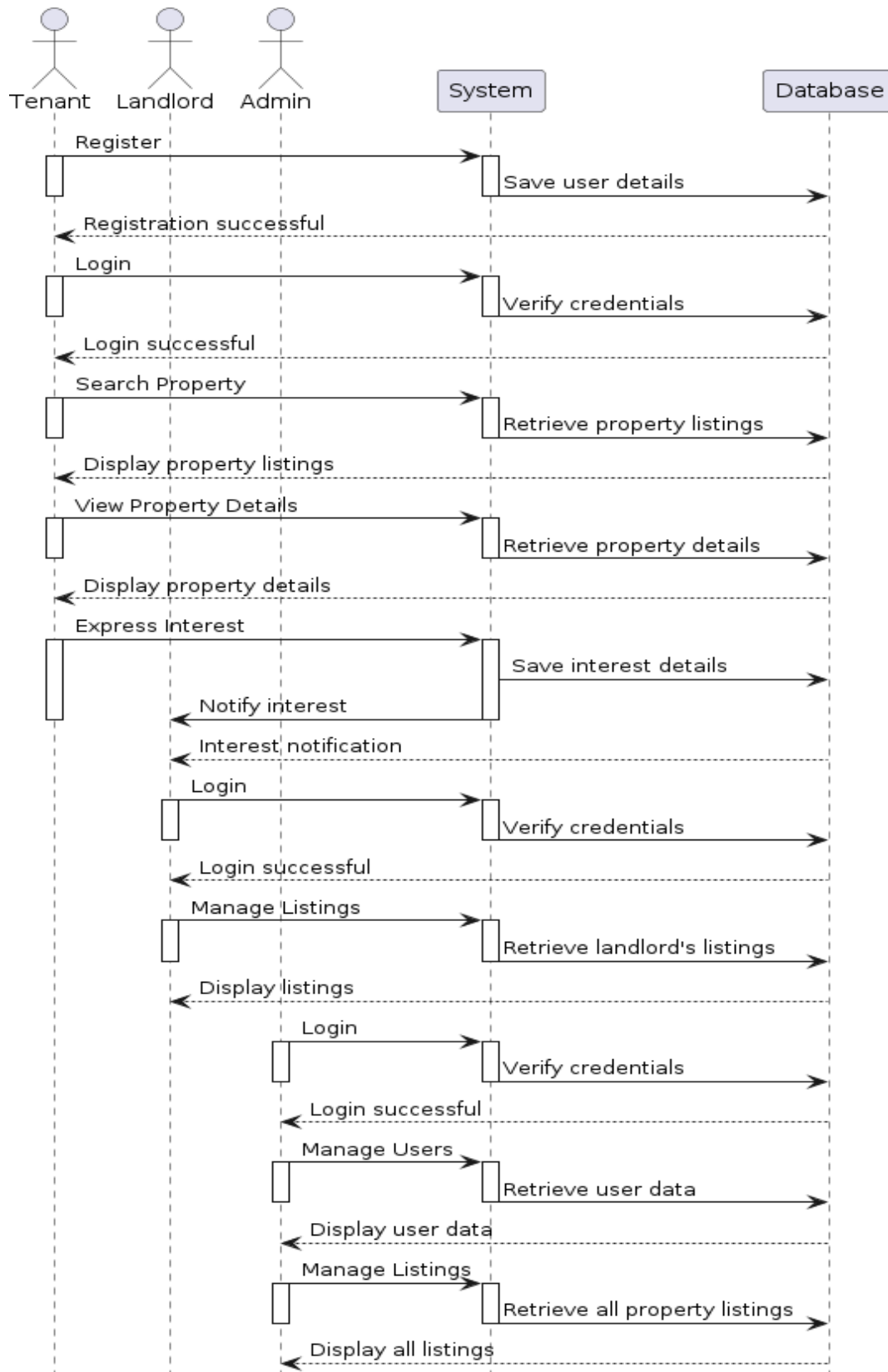
6.Software Design

Usecase Diagram:

Class Diagram:

User
- o int userId
- o String username
- o String password
- o String email
- register()
- login()

Landlord
- addProperty(Property property)
- manageListings()

Tenant
- searchProperty()
- viewPropertyDetails(int propertyId)
- expressInterest(int propertyId)
- contactLandlord(int landlordId)

Admin
- manageUsers()
- manageListings()

1

▼ owns

0..*

Property
- o int propertyId
- o String address
- o String description
- o double rent
- o String status
- addProperty()
- updateProperty()
- deleteProperty()

Sequence Diagram:

Activity Diagram:

Start → Open To-let Tracking Application → Login → Login Successful?
- yes → Search for Property → View Property Listings → Select a Property → View Property Details → Interested in Property?
  - yes → Express Interest → Contact Landlord
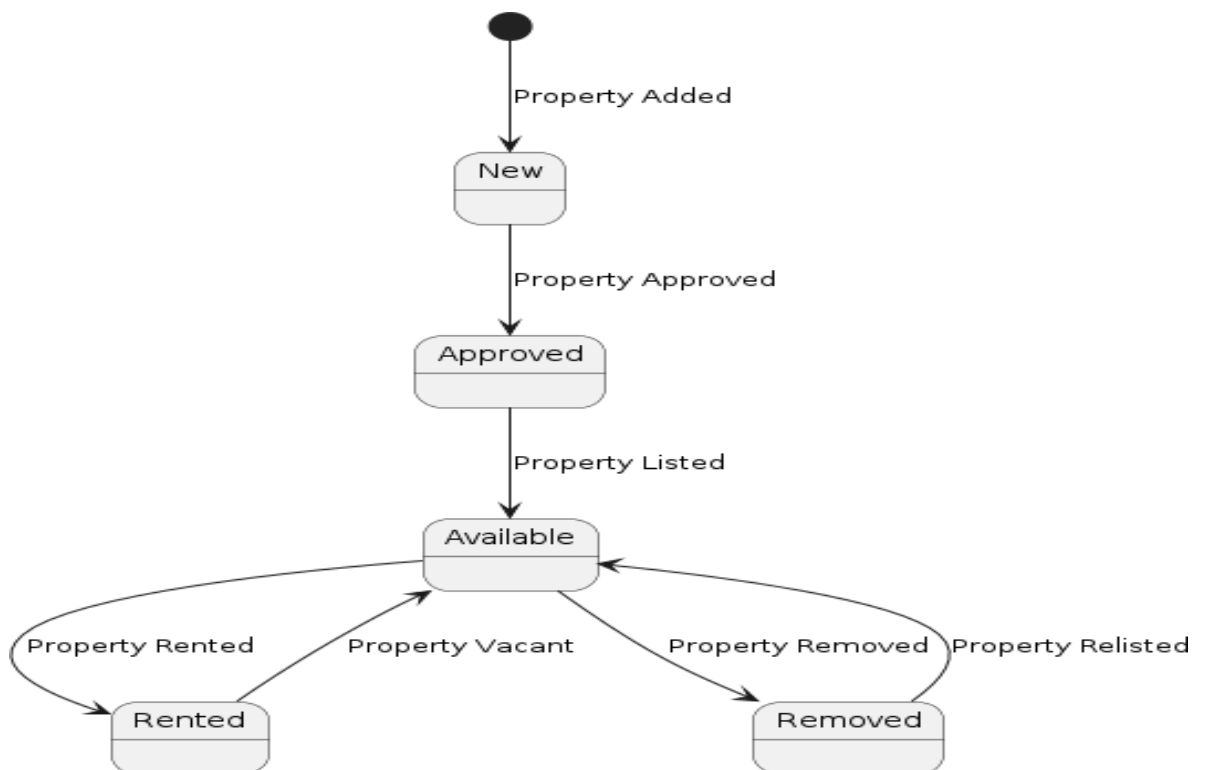 - no → Search for Another Property
- no → Show Login Error
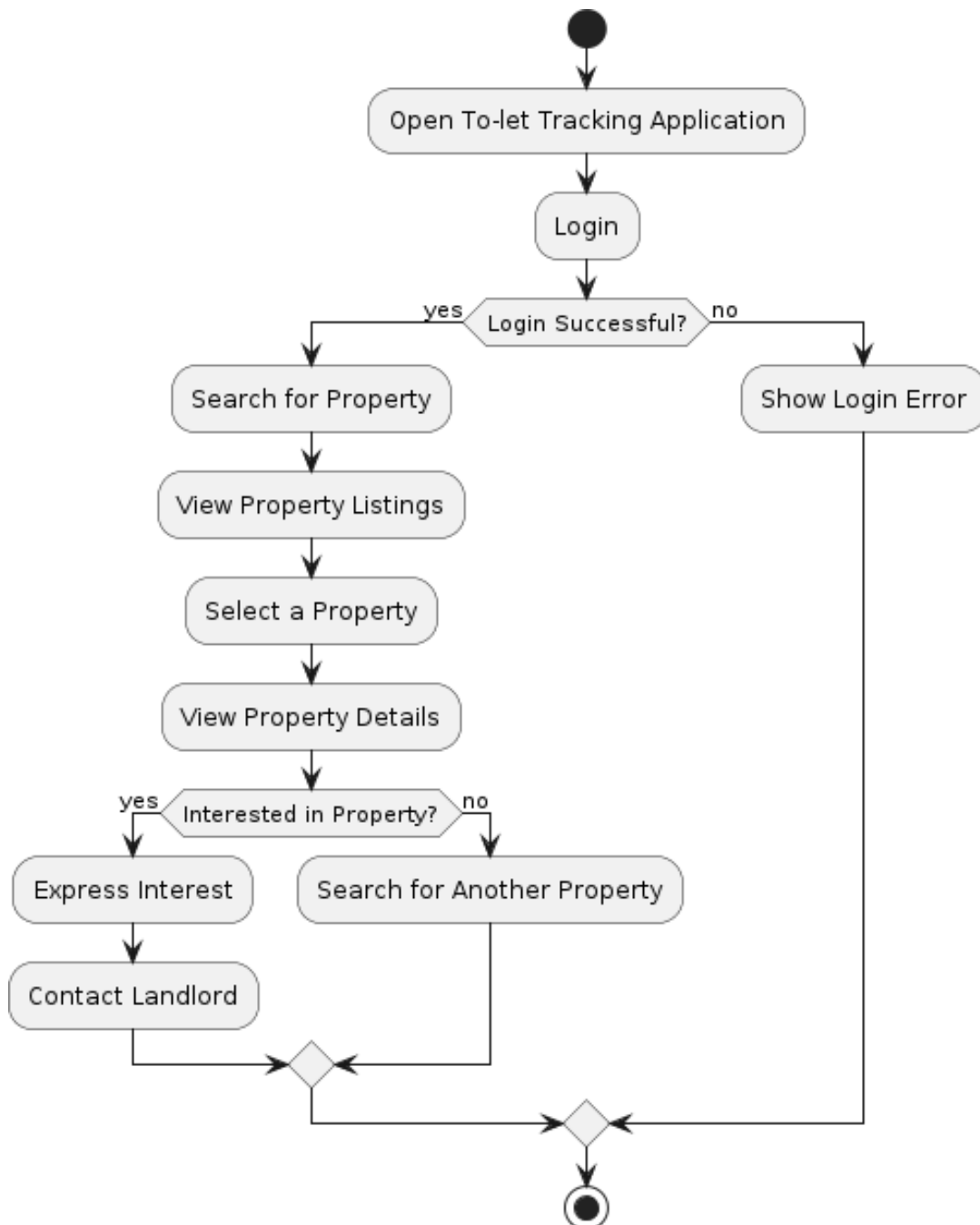
Component Diagram:
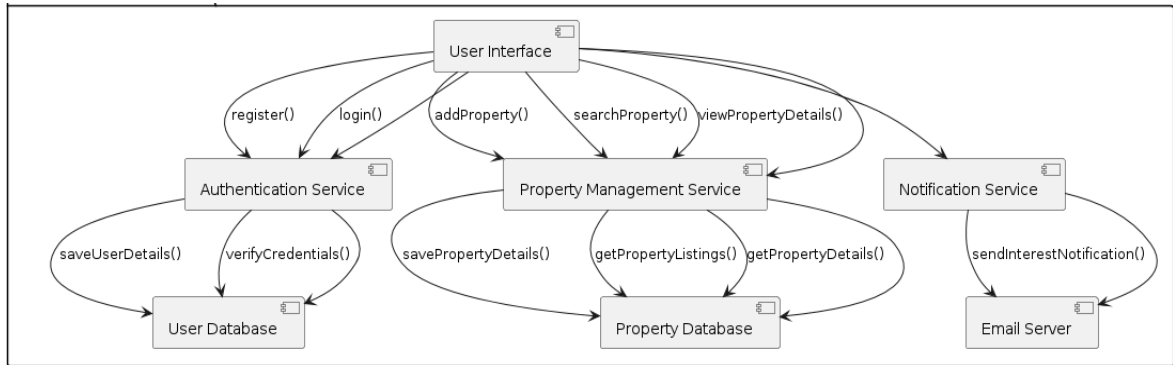
Statechart Diagram:

Collaboration Diagram:

Deployment Diagram:

7.   Module Description

To implement this project, we have designed following modules.

7.1 Main Page:

Header: Navigation bar with links to Home, About, sevice, contact, and Login pages

. About Us: Short section about the website and its mission.

Contact details and other relevant information.

7.5 Login Page:

Login Form: Fields for username/email and password.

Sign Up Option: Link to a registration page for new users

7.2 About Page:

Introduction: Detailed information about the website, its mission, and vision.

7.3 Contact page:

Phone Support: Contact number for direct phone support.

Contact Us: Encouragement to reach out for more information or personalized assistance.

7.4 Service page:

Introduction: Brief description of the Tolet Tracking System and its purpose.

Key Benefits: Highlight the primary advantages of using the system (e.g., efficiency, convenience, transparency).

Additional Considerations:

User-Friendly Interface: Explanation of the intuitive design and easy navigation.

Customization Options: Information on customizable features and settings to suit specific needs.

8.Implementation (Pseudo Code)

Tolet.html:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>TO-LET TRACKING</title>
    <link rel="stylesheet" href="styles/tolet.css">
</head>
<body>
    <div class="main">
        <div class="navbar">
            <div class="icon">
                <h2 class="logo">TOLET TRACKING</h2>
            </div>
            <div class="menu">
                <ul>
                    <li><a href="#">HOME</a></li>
                    <li><a href="about.html">ABOUT</a></li>
                    <li><a href="service.html">SERVICE</a></li>
                    <li><a href="contact.html">CONTACT</a></li>
                </ul>
            </div>
            <div class="search">
                <input class="srch" type="search" name="" placeholder="Type To
text">
                <a href="#"> <button class="btn">Search</button></a>
            </div>
        </div>
        <div class="content">
            <div class="content">
                <h1>TOLET TRACKING</h1>
                <form>
                    <div class="form">
                        <h2>Login Here</h2>
                        <input type="user" name="user" placeholder="Enter user
name Here" required>
                        <input type="password" name="" placeholder="Enter
Password Here" required>
                        <button class="btnn"><a type="submit">Login</a></button>
                        <p class="link">Don't have an account<br>
                            <a href="signup.html">Sign up </a> here</a>
```
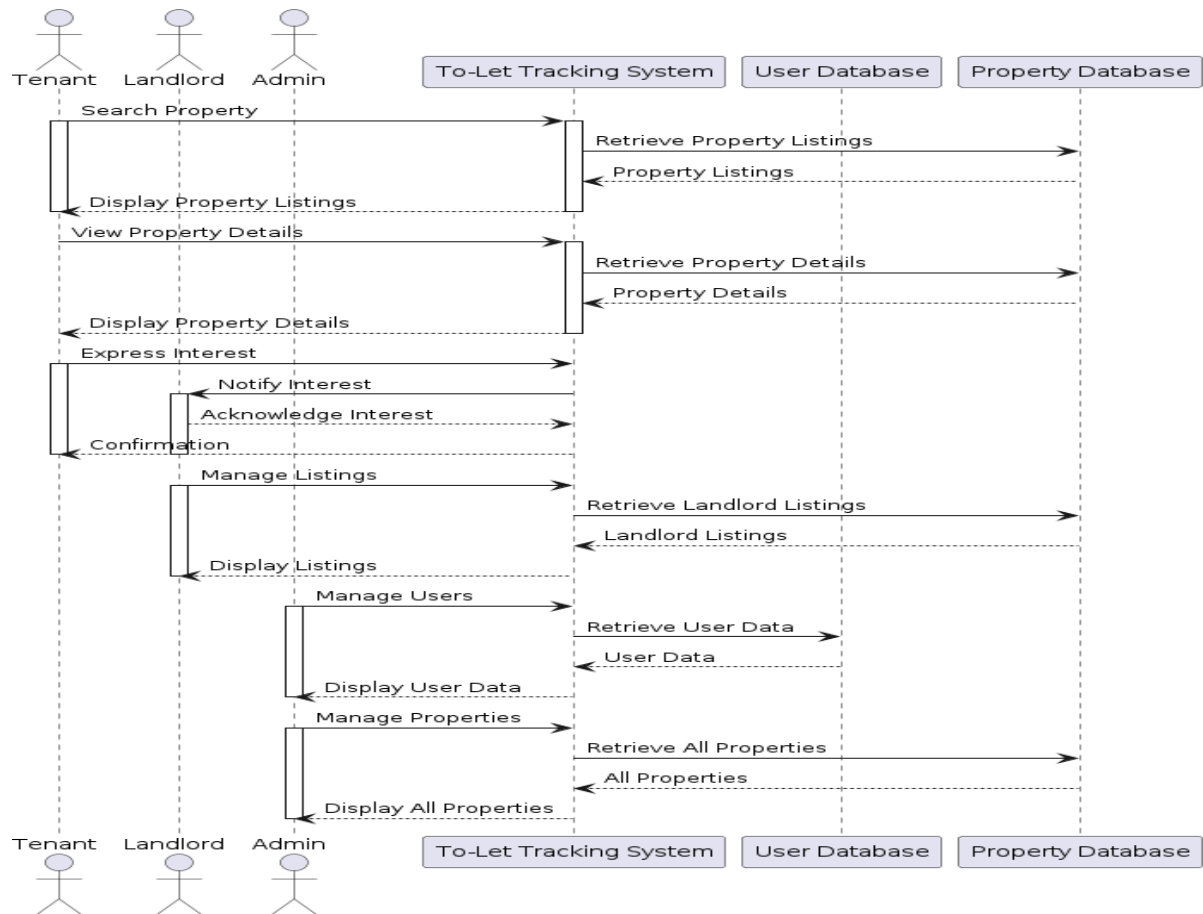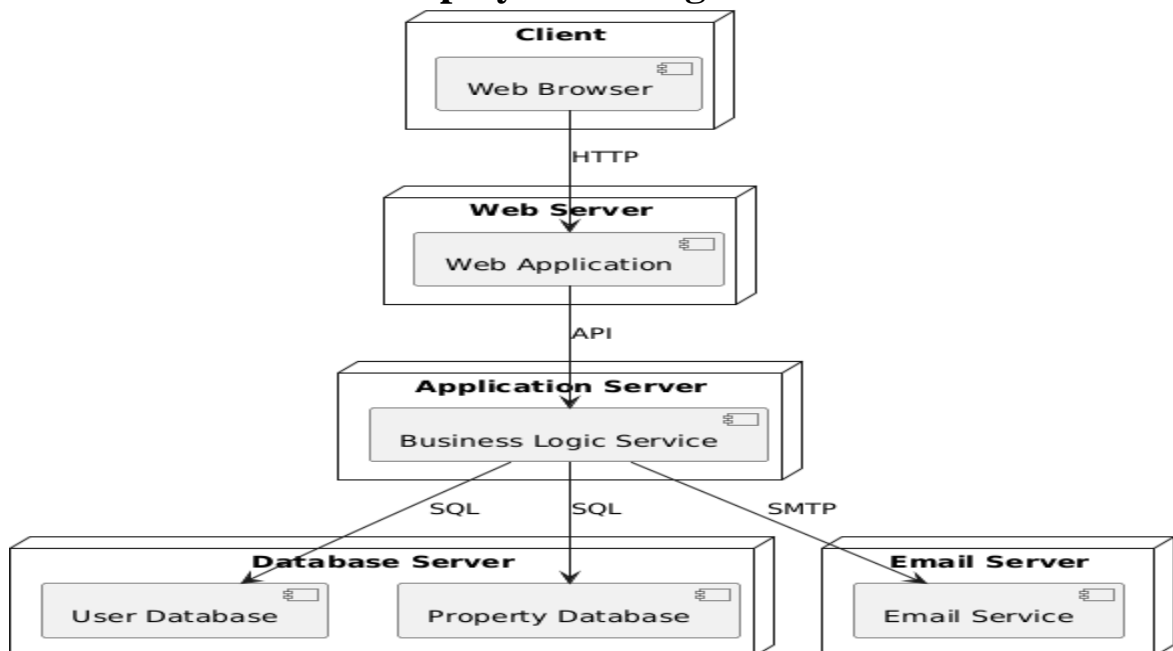
```html
                        </p>
                        <p class="liw">Log in with</p>
                        <div class="icons">
                              <a href="https:/www.facebook.com"><ion-icon
name="logo-facebook"></ion-icon></a>
                              <a href="https:/www.instagram.com"><ion-icon
name="logo-instagram"></ion-icon></a>
                              <a href="https:/www.twitter.com"><ion-icon
name="logo-twitter"></ion-icon></a>
                              <a href="https:/www.google.com"><ion-icon
name="logo-google"></ion-icon></a>
                              <a href="https:/www.skype.com"><ion-icon name="logo-
skype"></ion-icon></a>
                        </div>
                    </div>
                </form>
            </div>
        </div>
    </div>
    </div>
    <script src="https://unpkg.com/ionicons@5.4.0/dist/ionicons.js"></script>
    <script>
        document.getElementById('signup-form').addEventListener('submit', async
(e) => {
            e.preventDefault();
            const username = document.getElementById('signup-username').value;
            const email  =  document.getElementById('signup-email').value;
            const password = document.getElementById('signup-password').value;
            const response = await fetch('http://localhost:3000/signup', {
              method: 'POST',
              headers: { 'Content-Type': 'application/json' },
              body: JSON.stringify({ username, email, password }),
            });
            if (response.ok) {
              window.location.href = '/listing.html';
            } else {
              alert('Signup failed');
            }
        });
        document.getElementById('login-form').addEventListener('submit', async
(e) => {
            e.preventDefault();
            const email  =  document.getElementById('login-email').value;
            const password = document.getElementById('login-password').value;
            const response = await fetch('http://localhost:3000/login', {
              method: 'POST',
              headers: { 'Content-Type': 'application/json' },
              body: JSON.stringify({ email, password }),
            });
```

```
        if (response.ok) {
          const data = await response.json();
          localStorage.setItem('token', data.token);
          window.location.href = '/listing.html';
        } else {
          alert('Login failed');
        }
      });
    </script>
</body>
</html>
```

About.html:

```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>About Us - YourRentalWebsite</title>
    <link rel="stylesheet" href="styles/about.css">
</head>
<body>
    <header>
        <nav>
            <ul>
                <li><a href="tolet.html">Home</a></li>
                <li><a href="#">About</a></li>
                <li><a href="service.html">service</a></li>
                <li><a href="contact.html">Contact</a></li>
            </ul>
        </nav>
    </header>
    <main>
        <section class="about-us">
            <h1>About Us</h1>
            <p>Welcome to Tolet Tracking, your number one source for finding the
perfect rental home. We're dedicated
                to providing you the very best listings, with a focus on
reliability, customer service, and uniqueness.
            </p>
            <p>Founded in 2024 by ACE Engineering College Students, Tolet
Tracking has come a long way from its
                beginnings. When ACE Engineering College Students first started
out, their passion for helping people
                find their dream homes drove them to start their own
business.</p>
            <p>We now serve customers all over Telangana, and are thrilled that
```

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we're able to turn our passion into our
                own website.</p>
            <p>We hope you enjoy our services as much as we enjoy offering them
to you. If you have any questions or
                comments, please don't hesitate to contact us.</p>
            <p>Sincerely,<br>
                ACE Engineering College Students, Founder</p>
        </section>
        <section class="our-mission">
            <h2>Our Mission</h2>
            <p>Our mission is to simplify the rental process by providing a
seamless, transparent, and user-friendly
                platform. We strive to connect renters with landlords
efficiently, ensuring a hassle-free experience for
                both parties.</p>
        </section>
        <section class="team">
            <h2>Meet Our Team</h2>
            <div class="team-member">
                <h3>ACE Engineering College Students</h3>
            </div>
            <div class="team-member">
                <h3 class="names1">Team Member Names:</h3>
                <p
class="para21">1.sreebalaji<br>2.kruthika<br>3.saivamshi</p>
            </div>
        </section>
    </main>
    <footer>
        <p>&copy; [Current Year] YourRentalWebsite. All rights reserved.</p>
        <nav>
            <ul>
                <li><a href="privacy.html">Privacy Policy</a></li>
                <li><a href="terms.html">Terms of Service</a></li>
            </ul>
        </nav>
    </footer>
</body>
</html>
```

Contact.html:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Contact Us - House Rental</title>
    <link rel="stylesheet" href="styles/contact.css">
```

```html
</head>
<body>
    <div class="contact-container">
        <h1>Contact Us</h1>
        <p>If you have any questions or need further information, please fill
out the form below.</p>
        <form action="submit_form.php" method="post">
            <label for="name">Name:</label>
            <input type="text" id="name" name="name" required>
            <label for="email">Email:</label>
            <input type="email" id="email" name="email" required>
            <label for="message">Message:</label>
            <textarea id="message" name="message" rows="5" required></textarea>
            <button type="submit">Send Message</button>
        </form>
    </div>
</body>
</html>
```

Listing.html:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>House Listings</title>
    <link rel="stylesheet" href="styles/listing.css">
</head>
<body>
    <header>
        <h1>Available House Listings</h1>
        <nav>
            <ul>
                <li><a href="tolet.html">Home</a></li>
                <li><a href="#">Listings</a></li>
                <li><a href="contact.html">Contact</a></li>
            </ul>
        </nav>
    </header>
    <section id="listings">
        <h2>Our Properties</h2>
        <div class="listing">
            <img src="./listimg/house1.jpg" alt="House 1">
            <h3>Beautiful Family House</h3>
            <p>Location: Hyderabad, HYD</p>
            <p>Price: 45,000/month</p>
            <button>View Details</button>
        </div>
```

```html
        <div class="listing">
            <img src="./listimg/house2.jpg" alt="House 2">
            <h3>Modern Apartment</h3>
            <p>Location: Hyderabad, HYD</p>
            <p>Price: 20,000/month</p>
            <button>View Details</button>
        </div>
        <div class="listing">
            <img src="./listimg/house3.jpg" alt="House 3">
            <h3>Cozy Cottage</h3>
            <p>Location: Moinabad, MN</p>
            <p>Price: 15,000/day</p>
            <button>View Details</button>
        </div>
    </section>
    <section id="add-property">
        <h2>Add Your Property</h2>
        <form action="property.php" method="post">
            <label for="address">address:</label>
            <input type="text" id="address" name="address" required>
            <label for="price">price:</label>
            <input type="number" id="price" name="price" required>
            <label for="description">description:</label>
            <input type="text" id="description" name="description"
required>
            <label for="image">Image URl:</label>
            <input type="url" id="image" name="image" required>
            <label for="owner name">owner name:</label>
            <input type="text" id="owner name" name="owner name"
required>
            <label for="owner contact">owner contact:</label>
            <input type="number" id="owner contact" name="owner contact"
required>
            <label for="date">date:</label>
            <input type="datetime" id="date" name="date" required>
            <button type="submit">Add Property</button>
        </form>
    </section>
    <footer>
        <p>&copy; 2024 House Rental Services. All rights reserved.</p>
    </footer>
</body>
</html>
```

Service.html:

```html
<!DOCTYPE html>
<html lang="en">
<head>
```

```html
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>House Rental Services</title>
    <link rel="stylesheet" href="styles/service.css">
</head>
<body>
    <header>
        <h1>Welcome to Tolet Tracking</h1>
        <nav>
            <ul>
                <li><a href="tolet.html">Home</a></li>
                <li><a href="#services">Services</a></li>
                <li><a href="#contact">Contact</a></li>
            </ul>
        </nav>
    </header>
    <section id="home">
        <h2>Find Your Perfect Rental Home</h2>
        <p>Explore a wide range of rental properties available to suit your
needs.</p>
    </section>
    <section id="services">
        <h2>Our Services</h2>
        <div class="service">
            <h3>Property Listings</h3>
            <p>Browse through our extensive list of rental properties with
detailed descriptions and photos.</p>
        </div>
        <div class="service">
            <h3>Rental Assistance</h3>
            <p>Get professional assistance from our team to help you find the
right home.</p>
        </div>
        <div class="service">
            <h3>Tenant Support</h3>
            <p>We provide ongoing support for tenants throughout the rental
period.</p>
        </div>
    </section>
    <section id="contact">
        <h2>Contact Us</h2>
        <form action="submit_form.php" method="post">
            <label for="name">Name:</label>
            <input type="text" id="name" name="name" required>
            <label for="email">Email:</label>
            <input type="email" id="email" name="email" required>
            <label for="message">Message:</label>
            <textarea id="message" name="message" required></textarea>
            <button type="submit">Submit</button>
```

```
            </form>
        </section>
        <footer>
            <p>&copy; 2024 House Rental Services. All rights reserved.</p>
        </footer>
</body>
</html>
```

Signup.html:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Signup - Online House Rental</title>
    <link rel="stylesheet" href="styles/signup.css">
</head>
<body>
    <div class="form-container">
        <h2>Sign Up</h2>
        <form action="connect.php" method="post">
            <label for="username">Username</label>
            <input type="text" id="username" name="username" required>
            <label for="email">Email</label>
            <input type="email" id="email" name="email" required>
            <label for="password">Password</label>
            <input type="password" id="password" name="password" required>
            <button type="submit">Sign Up</button>
        </form>
        <p style="color: #ff7200;">Already have an account? <a
href="tolet.html">Login</a></p>
    </div>
</body>
</html>
```

Tolet.css:

```
*{
    margin: 0;
    padding: 0;
}
.main{
    width: 100%;
    background: linear-gradient(to top, rgba(0,0,0,0.5)50%,rgba(0,0,0,0.5)50%),
url(tolet\ logo1.svg);
    background-position: center;
```

```css
        background-size: cover;
        height: 100vh;
    }
    .navbar{
        width: 1200px;
        height: 75px;
        margin: auto;
    }
    .icon{
        width: 200px;
        float: left;
        height: 70px;
    }
    .logo{
        color: #ff7200;
        font-size: 35px;
        font-family: Arial;
        padding-left: 20px;
        float: left;
        padding-top: 10px;
        margin-top: 5px
    }
    .menu{
        width: 400px;
        float: left;
        height: 70px;
    }
    ul{
        float: left;
        display: flex;
        justify-content: center;
        align-items: center;
    }

    ul li{
        list-style: none;
        margin-left: 62px;
        margin-top: 27px;
        font-size: 14px;
    }
    ul li a{
        text-decoration: none;
        color: #fff;
        font-family: Arial;
        font-weight: bold;
        transition: 0.4s ease-in-out;
    }
    ul li a:hover{
    }
```

```
    color: #ff7200;

}
```

```css
.search{
    width: 330px;
    float: left;
    margin-left: 270px;
}
.srch{
    font-family: 'Times New Roman';
    width: 200px;
    height: 40px;
    background: transparent;
    border: 1px solid #ff7200;
    margin-top: 13px;
    color: #fff;
    border-right: none;
    font-size: 16px;
    float: left;
    padding: 10px;
    border-bottom-left-radius: 5px;
    border-top-left-radius: 5px;
}
.btn{
    width: 100px;
    height: 40px;
    background: #ff7200;
    border: 2px solid #ff7200;
    margin-top: 13px;
    color: #fff;
    font-size: 15px;
    border-bottom-right-radius: 5px;
    border-bottom-right-radius: 5px;
    transition: 0.2s ease;
    cursor: pointer;
}
.btn:hover{
    color: #000;
}
.btn:focus{
    outline: none;
}
.srch:focus{
    outline: none;
}
.content{
    width: 1200px;
    height: auto;
    margin: auto;
    color: #fff;
    position: relative;
}
```

```css
.content .par{
    padding-left: 20px;
    padding-bottom: 25px;
    font-family: Arial;
    letter-spacing: 1.2px;
    line-height: 30px;
}
.content h1{
    font-family: 'Times New Roman';
    font-size: 50px;
    padding-left: 20px;
    margin-top: 9%;
    letter-spacing: 2px;
}
.content .cn{
    width: 160px;
    height: 40px;
    background: #ff7200;
    border: none;
    margin-bottom: 10px;
    margin-left: 20px;
    font-size: 18px;
    border-radius: 10px;
    cursor: pointer;
    transition: .4s ease;

}
.content .cn a{
    text-decoration: none;
    color: #000;
    transition: .3s ease;
}
.cn:hover{
    background-color: #fff;
}
.content span{
    color: #ff7200;
    font-size: 65px
}
.form{
    width: 250px;
    height: 380px;
    background: linear-gradient(to top, rgba(0,0,0,0.8)50%,rgba(0,0,0,0.8)50%);
    position: absolute;
    top: -20px;
    left: 870px;
    transform: translate(0%,-5%);
    border-radius:  10px;
    padding: 25px;
```

```css
}
.form h2{
    width: 220px;
    font-family: sans-serif;
    text-align: center;
    color: #ff7200;
    font-size: 22px;
    background-color: #fff;
    border-radius: 10px;
    margin: 2px;
    padding: 8px;
}
.form input{
    width: 240px;
    height: 35px;
    background: transparent;
    border-bottom: 1px solid #ff7200;
    border-top: none;
    border-right: none;
    border-left: none;
    color: #fff;
    font-size: 15px;
    letter-spacing: 1px;
    margin-top: 30px;
    font-family: sans-serif;
}
.form input:focus{
    outline: none;
}
::placeholder{
    color: #fff;
    font-family: Arial;
}
.btnn{
    width: 240px;
    height: 40px;
    background: #ff7200;
    border: none;
    margin-top: 30px;
    font-size: 18px;
    border-radius: 10px;
    cursor: pointer;
    color: #fff;
    transition: 0.4s ease;
}
.btnn:hover{
    background: #fff;
    color: #ff7200;
}
```

```css
.btnn a{
    text-decoration: none;
    color: #000;
    font-weight: bold;
}
.form .link{
    font-family: Arial, Helvetica, sans-serif;
    font-size: 17px;
    padding-top: 20px;
    text-align: center;
}
.form .link a{
    text-decoration: none;
    color: #ff7200;
}
.liw{
    padding-top: 15px;
    padding-bottom: 10px;
    text-align: center;
}
.icons a{
    text-decoration: none;
    color: #fff;
}
.icons ion-icon{
    color: #fff;
    font-size: 30px;
    padding-left: 14px;
    padding-top: 5px;
    transition: 0.3s ease;
}
.icons ion-icon:hover{
    color: #ff7200;
}
```

About.css:

```css
/* General Styles */
body {
    font-family: Arial, sans-serif;
    margin: 0;
    padding: 0;
    line-height: 1.6;
}
header {
    background: #333;
    color: #fff;
    padding: 10px 0;
```

```css
}
header nav ul {
    list-style: none;
    padding: 0;
}
header nav ul li {
    display: inline;
    margin-right: 10px;
}
header nav ul li a {
    color: #fff;
    text-decoration: none;
}
/* Main Content */
main {
    padding: 20px;
    background: #f4f4f4;
}
h1, h2 {
    color: #333;
}
.about-us, .our-mission, .team {
    margin-bottom: 20px;
    background: #fff;
    padding: 20px;
    border-radius: 5px;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
}
/* Team Section */
.team-member {
    display: flex;
    align-items: center;
    margin-bottom: 20px;
}
.names1{
padding-bottom: 60px;
}
.para21{
    padding-left: 25px;
    padding-top: 0px;
    font-size: 18px;
    font-style:initial;
}
.team-member h3 {
    margin: 0;
}
/* Footer */
footer {
    background: #333;
```

```css
    color: #fff;
    text-align: center;
    padding: 10px 0;
}
footer nav ul {
    list-style: none;
    padding: 0;
}
footer nav ul li {
    display: inline;
    margin-right: 10px;
}
footer nav ul li a {
    color: #fff;
    text-decoration: none;
}
```

Contact.css:

```css
body {
    font-family: Arial, sans-serif;
    background-color: #f4f4f4;
    margin: 0;
    padding: 0;
    display: flex;
    justify-content: center;
    align-items: center;
    height: 100vh;
}
.contact-container {
    background-color: white;
    padding: 20px;
    border-radius: 8px;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
    max-width: 500px;
    width: 100%;
}
h1 {
    margin-top: 0;
    color: #333;
}
p {
    margin: 10px 0;
    color: #666;
}
label {
    display: block;
    margin: 10px 0 5px;
```

```css
    color: #333;
}
input, textarea {
    width: calc(100% - 20px);
    padding: 10px;
    margin-bottom: 10px;
    border: 1px solid #ccc;
    border-radius: 4px;
    box-sizing: border-box;
}
button {
    width: 100%;
    padding: 10px;
    background-color: #5cb85c;
    color: white;
    border: none;
    border-radius: 4px;
    cursor: pointer;
    font-size: 16px;
}
button:hover {
    background-color: #4cae4c;
}
```

Listing.css:

```css
body {
    font-family: Arial, sans-serif;
    margin: 0;
    padding: 0;
}
header {
    background-color: #4CAF50;
    color: white;
    padding: 10px 0;
    text-align: center;
}
header h1 {
    margin: 0;
}
nav ul {
    list-style: none;
    padding: 0;
}
nav ul li {
    display: inline;
    margin: 0 15px;
}
```

```css
nav ul li a {
    color: white;
    text-decoration: none;
}
#listings, #add-property {
    padding: 20px;
    margin: 20px 0;
}
#listings h2, #add-property h2 {
    text-align: center;
    margin-bottom: 20px;
}
.listing {
    background-color: #f4f4f4;
    border: 1px solid #ccc;
    border-radius: 10px;
    padding: 20px;
    margin-bottom: 20px;
    text-align: center;
}
.listing img {
    width: 100%;
    height: auto;
    border-radius: 10px;
}
.listing h3 {
    margin-top: 15px;
    font-size: 24px;
}
.listing p {
    font-size: 16px;
    margin: 10px 0;
}
.listing button {
    padding: 10px 20px;
    background-color: #4CAF50;
    color: white;
    border: none;
    border-radius: 5px;
    cursor: pointer;
}
.listing button:hover {
    background-color: #45a049;
}
#add-property form {
    display: flex;
    flex-direction: column;
    align-items: center;
}
```

```css
#add-property form label {
    margin: 10px 0 5px;
    align-self: flex-start;
}
#add-property form input {
    padding: 10px;
    margin-bottom: 10px;
    border: 1px solid #ccc;
    border-radius: 5px;
    width: 100%;
    max-width: 500px;
}
#add-property form button {
    padding: 10px 20px;
    background-color: #4CAF50;
    color: white;
    border: none;
    border-radius: 5px;
    cursor: pointer;
}
#add-property form button:hover {
    background-color: #45a049;
}
footer {
    background-color: #333;
    color: white;
    text-align: center;
    padding: 10px 0;
}
```

Service.css:

```css
body {
    font-family: Arial, sans-serif;
    margin: 0;
    padding: 0;
}
header {
    background-color: #4CAF50;
    color: white;
    padding: 10px 0;
    text-align: center;
}
header h1 {
    margin: 0;
}
nav ul {
    list-style: none;
```

```css
    padding: 0;
}
nav ul li {
    display: inline;
    margin: 0 15px;
}
nav ul li a {
    color: white;
    text-decoration: none;
}
section {
    padding: 20px;
    margin: 20px 0;
}
#services {
    background-color: #f4f4f4;
}
.service {
    margin: 20px 0;
}
form {
    display: flex;
    flex-direction: column;
}
form label {
    margin: 10px 0 5px;
}
form input, form textarea {
    padding: 10px;
    margin-bottom: 10px;
    border: 1px solid #ccc;
    border-radius: 5px;
}
form button {
    padding: 10px;
    background-color: #4CAF50;
    color: white;
    border: none;
    border-radius: 5px;
    cursor: pointer;
}
form button:hover {
    background-color: #45a049;
}
footer {
    background-color: #333;
    color: white;
    text-align: center;
    padding: 10px 0; }
```

Signup.css:

```css
body {
    font-family: Arial, sans-serif;
    background:  linear-gradient(to top,
rgba(0,0,0,0.5)50%,rgba(0,0,0,0.5)50%),url('tolet\ logo1.svg') no-repeat center
center fixed;
    background-size: cover;
    display: flex;
    justify-content: center;
    align-items: center;
    height: 100vh;
    margin: 0;
}
header {
    text-align: center;
    margin-bottom: 50px;
}
header h1 {
    color: #fff;
}
nav a {
    color: #fff;
    margin: 0 15px;
    text-decoration: none;
    font-weight: bold;
}
nav a:hover {
    text-decoration: underline;
}
.form-container{
    width: 250px;
    height: 380px;
    background: linear-gradient(to top, rgba(0,0,0,0.8)50%,rgba(0,0,0,0.8)50%);
    position: absolute;
    top: 99px;
    left: 575px;
    transform: translate(0%,-5%);
    border-radius:  10px;
    padding: 25px;
}
.form-container h2{
    width: 220px;
    font-family: sans-serif;
    text-align: center;
    color: #ff7200;
    font-size: 22px;
    background-color: #fff;
    border-radius: 10px;
```

```css
    margin: 2px;
    padding: 8px;
}
.form-container h2 {
    margin-bottom: 20px;
}
.form-container label {
    display: block;
    margin-bottom: 5px;
    font-weight: bold;
    color: #ff7200;
}
.form-container input {
    width: 100%;
    padding: 8px;
    margin-bottom: 15px;
    border: 1px solid #ccc;
    border-radius: 5px;
}
.form-container button {
    width: 100%;
    padding: 10px;
    background-color: #4CAF50;
    border: none;
    border-radius: 5px;
    color: white;
    font-size: 16px;
    cursor: pointer;
}
.form-container button:hover {
    background-color: #45a049;
}
.form-container p {
    margin-top: 15px;
}
.form-container a {
    color: #4CAF50;
    text-decoration: none;
}
.form-container a:hover {
    text-decoration: underline;
}
```

Script.js:

```javascript
document.getElementById('loginForm').addEventListener('submit', function(event)
{
    event.preventDefault();
```

```
    const username = document.getElementById('username').value;
    const password = document.getElementById('password').value;
    // Dummy validation for demonstration
    if (username === 'user' && password === 'password') {
        window.location.href = 'listing.html';  // Redirect to listing page
    } else {
        alert('Invalid username or password');
    }
});
```
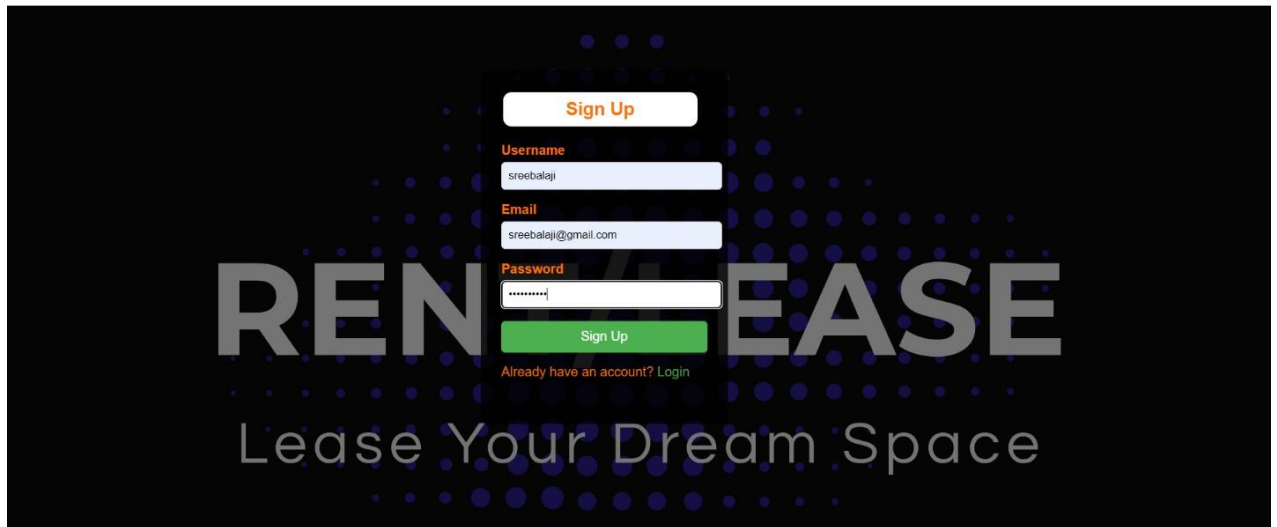
Server.js:

```
// server.js

const express = require('express');
const bodyParser = require('body-parser');
const mongoose = require('mongoose');
const bcrypt = require('bcrypt');
const jwt = require('jsonwebtoken');
const app = express();
mongoose.connect('mongodb://localhost:27017/myapp', { useNewUrlParser: true });
const UserSchema = new mongoose.Schema({
  username: String,
  email: String,
  password: String,
});
const User = mongoose.model('User', UserSchema);
app.use(bodyParser.json());
// Signup route
app.post('/signup', async (req, res) => {
  const { username, email, password } = req.body;
  const hashedPassword = await bcrypt.hash(password, 10);
  const user = new User({ username, email, password: hashedPassword });
  await user.save();
  res.json({ message: 'User created successfully' });
});
// Login route
app.post('/login', async (req, res) => {
  const { email, password } = req.body;
  const user = await User.findOne({ email });
  if (user && await bcrypt.compare(password, user.password)) {
    const token = jwt.sign({ userId: user._id }, 'secret');
    res.json({ token, user });
  } else {
    res.status(401).json({ message: 'Invalid email or password' });
  }
});
app.listen(3000, () => console.log('Server running on http://localhost:3000'));
```
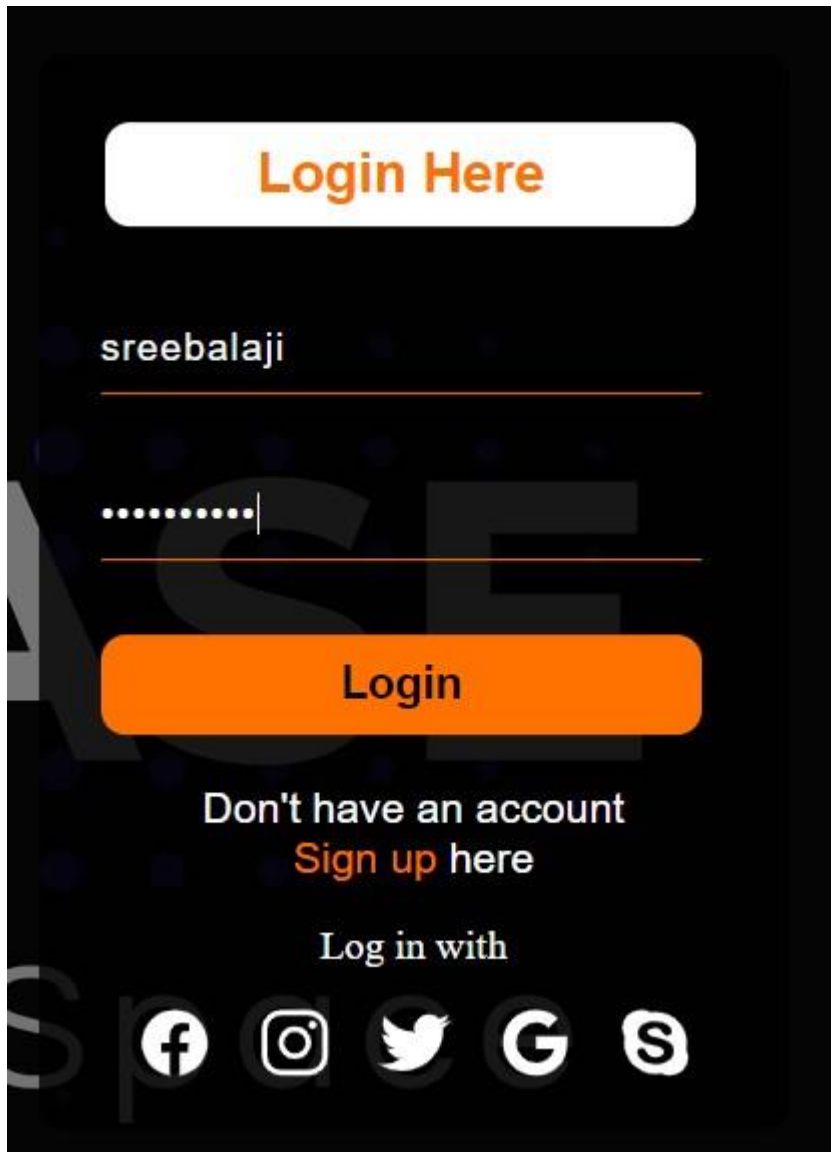
9. Test Cases

Testcase one-1:

Signup successfully

Output: Registered successfully. Redirecting to main page.

Database:

←T→				user_id	username	email	password
☐	🖉 Edit	⌗ Copy	⊖ Delete	2	sreebalaji	sreebalaji@gmail.com	$2y$10$TdAJPaQnwDiMJ
☐	🖉 Edit	⌗ Copy	⊖ Delete	3	kruthika	kruthika@gmail.com	$2y$10$opXxEm0ex9s0Q
☐	🖉 Edit	⌗ Copy	⊖ Delete	4	saivamshi	saivamshi@gmail.com	$2y$10$4GiXuwCOd1Qz3

Testcase-2:

Output : Login successfully.

Testcase-3:

Add Your Property

address:

| hayathnagar |

price:

| 5000 |

description:

| Welcome to your new home! This charming 3-bedroom, 2-bathroom house is located |

Image URL:

| https://in.images.search.yahoo.com/images/view;_ylt=Awr1QOijqZJmC9YEg3S9HAx |

owner name:

| balaji |

owner contact:

| 9999999999 |

date:

| 2024/07/07 |

Add Property

Output : property added successfully

Database:

	property_id	address	price	description	imageurl	ownername	ownercontact	date
Edit Copy Delete	1	hayathnagar	5000	Welcome to your new home! This charming 3-bedroom,...	1bhk.jpg	balaji	905980482	2024-07-07
Edit Copy Delete	2	lbnagar	10000	Welcome to your new home! This charming 3-bedroom,...	3bhk.jpg	kruthika	987654321	2024-07-07
Edit Copy Delete	3	uppal	6000	Welcome to your new home! This charming 3-bedroom,...	2bhk.jpg	saivamshi	987654213	2024-07-08

Click the drop-down arrow to toggle column's visibility.

10.OUTPUT SCREENS:

Main page:
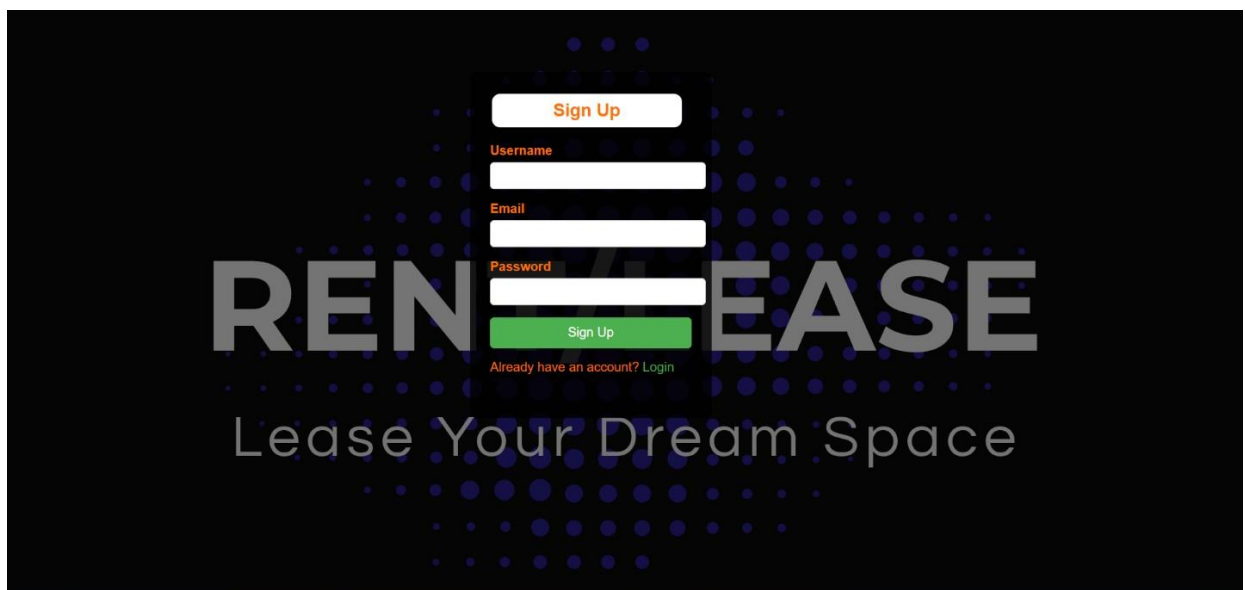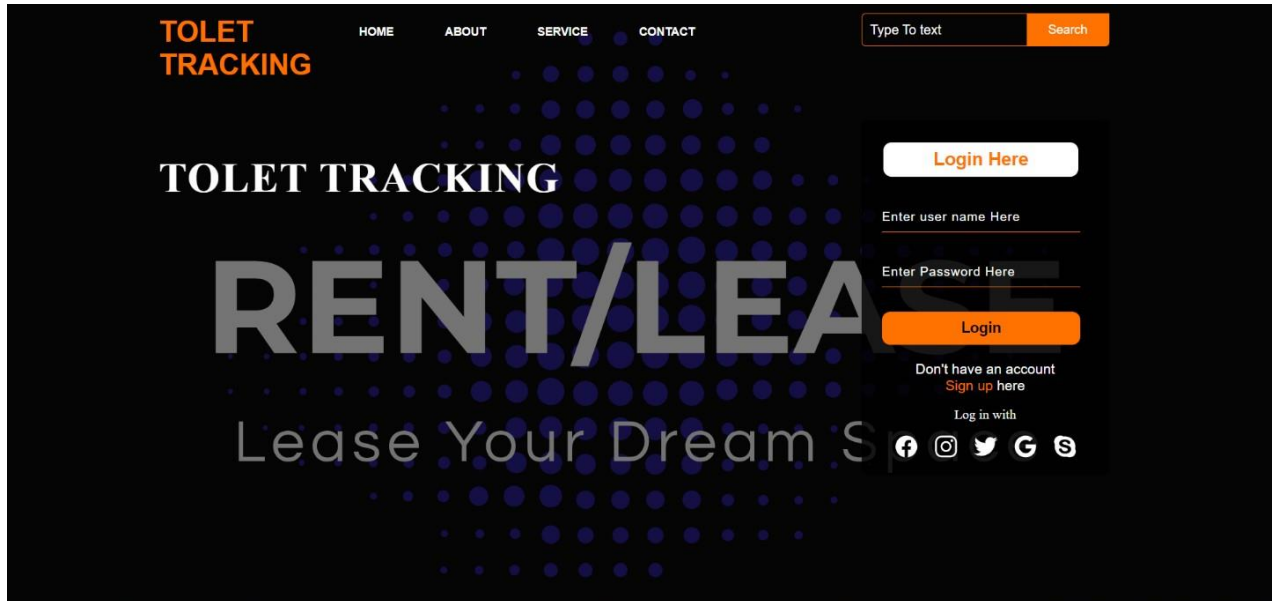
About page:

Home About service Contact

About Us

Welcome to Tolet Tracking, your number one source for finding the perfect rental home. We're dedicated to providing you the very best listings, with a focus on reliability, customer service, and uniqueness.

Founded in 2024 by ACE Engineering College Students, Tolet Tracking has come a long way from its beginnings. When ACE Engineering College Students first started out, their passion for helping people find their dream homes drove them to start their own business.

We now serve customers all over Telangana, and are thrilled that we're able to turn our passion into our own website.

We hope you enjoy our services as much as we enjoy offering them to you. If you have any questions or comments, please don't hesitate to contact us.

Sincerely,
ACE Engineering College Students, Founder

Our Mission

Our mission is to simplify the rental process by providing a seamless, transparent, and user-friendly platform. We strive to connect renters with landlords efficiently, ensuring a hassle-free experience for both parties.

Contact page:

Contact Us

If you have any questions or need further information, please fill out the form below.

Name:

Email:

Message:

Send Message

Property page:

Add Your Property

Property Name:

Location:

Price per Month:

Image URL:

owner name:

owner contact:

date:

Add Property

Service page:

Welcome to Tolet Tracking

Home   Services   Contact

Find Your Perfect Rental Home

Explore a wide range of rental properties available to suit your needs.

Our Services

Property Listings

Browse through our extensive list of rental properties with detailed descriptions and photos.

Rental Assistance

Get professional assistance from our team to help you find the right home.

Tenant Support

We provide ongoing support for tenants throughout the rental period.

11.   Conclusion

The "To-let Tracking" system is a comprehensive solution designed to streamline the process of renting properties. By integrating various modules such as User Management, Property Management, Interest Management, Notification Services, and Booking and Rental Management, the system ensures a seamless and efficient experience for tenants, landlords, and The robust architecture, incorporating web and mobile interfaces, secure databases, and external services like email, SMS, and payment gateways, guarantees reliability and user convenience. With its emphasis on security and compliance, the system protects user data and adheres to regulatory standards. Overall, the "To-let Tracking" system significantly enhances the property rental process, offering an intuitive, secure, and scalable platform

the ToLet tracking system emerges as a robust solution to the complexities of property rental management. By digitizing the entire rental process, it streamlines operations, enhances transparency, and improves efficiency for both landlords and tenants. The system's ability to automate tasks, facilitate secure transactions, and provide real-time data analytics positions it as an indispensable tool for modern property management. As technology continues to evolve, the ToLet tracking system is poised to become an even more integral part of the rental landscape, revolutionizing the way properties are managed and rented.

The ToLet tracking system emerges as a transformative solution for the property rental industry. By centralizing property listings, tenant management, and financial transactions, it significantly reduces administrative burdens for landlords and property managers. The system's robust features, including automated rent collection, maintenance requests, and lease renewals, contribute to streamlined operations and enhanced tenant satisfaction. Moreover, the integration of data analytics empowers stakeholders to make informed decisions regarding pricing, occupancy rates, and property performance. As the rental market becomes increasingly competitive, the ToLet tracking system positions its users at the forefront of technological advancement, enabling them to optimize their rental portfolios and achieve sustainable growth.

12.   Future Enhancements

The ToLet tracking system, while already a robust solution, has potential for further development to address emerging needs and leverage technological advancements. Here are some potential enhancements:

Integration with IoT Devices:

- **Smart home integration:** Linking the system with smart home devices can provide additional property features and amenities to tenants, increasing property value.
- **Property condition monitoring:** IoT sensors can monitor property conditions (temperature, humidity, energy consumption) for preventive maintenance and energy efficiency.

Advanced Analytics and Predictive Modeling:

- **Predictive maintenance:** Using historical data and machine learning, the system can predict maintenance needs, reducing downtime and costs.
- **Tenant behavior analysis:** Understanding tenant behavior can help optimize property management strategies, such as pricing, amenities, and marketing.
- **Market trend analysis:** Analyzing rental market data can provide insights into pricing, demand, and supply for better decision-making.

Enhanced Tenant Experience:

- **Virtual property tours:** Offering immersive virtual tours can attract more potential tenants and reduce physical property visits.
- **Tenant portals with additional features:** Expanding tenant portals to include features like community forums, event calendars, and service requests can improve tenant satisfaction.
- **Mobile app enhancements:** Developing a more robust mobile app with features like mobile payments, maintenance requests, and communication tools can enhance user experience.

Artificial Intelligence (AI) and Chatbots:

- **AI-powered customer support:** Implementing AI-powered chatbots can provide 24/7 support and answer tenant inquiries efficiently.
- **Intelligent property matching:** Using AI algorithms to match tenants with suitable properties based on their preferences can improve tenant satisfaction and occupancy rates.

13.   References

Here are some specific references and tools for tracking To-let listings:

1. Buildium:

[Buildium Official Website] (https://www.buildium.com/)
Features: Property management software for tracking rentals, managing tenants, and handling finances.

2. AppFolio:

[AppFolio Official Website] (https://www.appfolio.com/)
Features: Provides tools for marketing rental properties, screening tenants, and managing leases.

3.Tenant Cloud:

[Tenant Cloud Official Website] (https://www.tenantcloud.com/)
Features: Allows landlords to track rental properties, manage tenant interactions, and process payments online.

4. Property ware:

[Property ware Official Website] (https://www.propertyware.com/)
Features: Customizable solutions for tracking single-family rentals, managing leases, and handling maintenance requests.
[Yardi Breeze Official Website] '(https://www.yardibreeze.com/)
Features: Easy-to-use property management software for tracking rentals, managing leases, and handling tenant communications.

These references can provide valuable insights and background information to support the development and understanding of a "To-let Tracking" system.