

Project #1 description: Rental Management System

This project aims to develop a web application for managing various rental properties, including residential and commercial spaces. Key features will include tenant management, lease agreement creation, rent collection, and maintenance. The goal is to enhance operational efficiency and improve communication between property owners and tenants.

REQUIREMENTS:

1. Registration/login
2. Property and Tenant Management
3. Creating lease agreement
4. Rent payment status
5. Maintenance request management
6. Online Rent Payment Processing

Link for figma design:

<https://www.figma.com/design/vj8eD5Tj1jrY0H2pva7u0J/Cisc-327-A1?node-id=35-10&t=t6bMo7eDTuGwhAmA-1>

Requirement 1: Registration/Login

Test Case Name: User Registration and Login

- **Objective:** Verify that users can successfully register and log in to the system.
- **Action:** On the registration page, input valid details (username, email, password) and submit. After registration, navigate to the login page and use the registered credentials to log in.
- **Assert:** Make sure the user is registered, redirected to the login page with a success message, and can log in with valid credentials to access the dashboard.

Requirement 2: Property and Tenant Management

Test Case Name: Property and Tenant Management

- **Objective:** Verify that properties can be added or removed and tenants can be associated with or dissociated from properties.
- **Action:**
 - On the property management page, input details for a new property (e.g., property type, location, size) and add it to the system.
 - Add a tenant to the property by inputting tenant details (name, contact info).
 - Remove an existing tenant from a property.
 - Remove an existing property from the system.

- **Assert:** Ensure the property is successfully added and appears in the property list. Verify the tenant is added to the property and appears in the tenant list. Confirm that upon removal, both the tenant and property are removed from the system and the lists are updated accordingly.

Requirement 3: Creating Lease Agreement

Test Case Name: Lease Agreement Creation

- **Objective:** Verify the creation of lease agreements between tenants and property owners.
- **Action:** On the lease agreement creation page, fill out the required fields (tenant details, property info, lease terms, rent amount) and click "Create Lease."
- **Assert:** Ensure a new lease agreement is created, and a confirmation message is displayed. The lease should also appear in the tenant's and property owner's records.

Requirement 4: Rent Payment Status

Test Case Name: Rent Payment Status Tracking

- **Objective:** Verify that users can view the current status of rent payments.
- **Action:** On the payment status page, select a tenant and view their rent payment history.
- **Assert:** Ensure that the rent payment status is displayed correctly, including amounts paid, outstanding balance, and due dates.

Requirement 5: Maintenance Request Management

Test Case Name: Maintenance Request Submission and Tracking

- **Objective:** Verify that the landlord can enter maintenance requests and track their status.
- **Action:** On the maintenance request page, submit a request with details (e.g., issue description, property location). Then, view the status of submitted requests.
- **Assert:** Ensure the request is submitted successfully, a confirmation message is displayed, and the request's status can be tracked (e.g., pending, in progress, resolved). Verify that the request is stored in the database with the correct information.

Requirement 6: Online Rent Payment Processing

Test Case Name: Rent Payment Processing

- **Objective:** Verify that tenants can make rent payments online through the system.
- **Action:** Tenant receives unique link from landlord, can review payment details, can click a button which takes them to a third party payments provider (e.g. paypal or stripe)

- **Assert:** Ensure that the payment data is correct and the payment link is available. Once the payment is processed successfully, a confirmation receipt is emailed both to the tenant and landlord. The payment status is updated in the Rent Payment Status Tracking (RPST) system.