

# Functional Requirements

## 1. User and Access Management

- FR1.1 The system shall allow property owners (Administrators) to register and log in securely using valid credentials.
- FR1.2 The system shall provide role-based access control, restricting administrative functions to authorized users only.
- FR1.3 The system shall allow public users (potential tenants) to access the Property Finder module without authentication.
- FR1.4 The system shall allow administrators to create, update, and delete user accounts as required.
- FR1.5 The system shall provide a logout function to ensure secure session termination.

## 2. Property and Unit Management

- FR2.1 The system shall allow administrators to register new properties with essential details, including address, property type (Residential/Commercial), and number of units.
- FR2.2 The system shall allow administrators to register individual units under each property, specifying attributes such as unit number, area, rental price, and status.
- FR2.3 The system shall allow modification or deletion of existing property and unit records.
- FR2.4 The system shall maintain a unique identifier for each property and unit.
- FR2.5 The system shall allow administrators to change the status of a unit to Occupied, Vacant, or Under Maintenance.

## 3. Tenant and Lease Management

- FR3.1 The system shall allow administrators to record tenant details, including full name, contact information, and associated unit.
- FR3.2 The system shall allow administrators to create and manage lease agreements by specifying lease start date, end date, rent amount, and security deposit.
- FR3.3 The system shall automatically identify leases expiring within 60 days and display them on the dashboard.
- FR3.4 The system shall allow administrators to renew, terminate, or modify existing lease records.

#### **4. Financial Management**

- FR4.1 The system shall provide an interface for recording rent payments and associating them with tenants and properties.
- FR4.2 The system shall allow administrators to record and categorize property-related expenses (e.g., maintenance, utilities, taxes).
- FR4.3 The system shall calculate and display monthly totals for income and expenses.
- FR4.4 The system shall generate a summary view comparing monthly income versus expenses.
- FR4.5 The system shall allow exporting financial summaries or transaction data to external files (e.g., CSV or PDF).

#### **5. Maintenance Management**

- FR5.1 The system shall allow administrators to log maintenance requests with details including unit, issue description, date, and current status.
- FR5.2 The system shall support updating the maintenance request status as New, In Progress, or Completed.
- FR5.3 The system shall allow filtering maintenance records by date range, property, or request status.
- FR5.4 The system shall notify the administrator when maintenance requests remain unresolved beyond a defined threshold.

#### **6 Public Property Finder**

- FR6.1 The system shall provide a public-facing webpage listing all units marked as Vacant.
- FR6.2 The system shall allow public users to search and filter available properties based on location, rental price, and property type.
- FR6.3 The system shall display property details including address, unit type, and rental rate in a read-only format.
- FR6.4 The system shall provide an inquiry form enabling potential tenants to contact the property owner or administrator.

## **7. Dashboard and Reporting**

- FR7.1 The system shall provide an administrative dashboard summarizing key metrics, including:
  - Total properties and units
  - Number of vacant, occupied, and maintenance units
  - Leases expiring within the next 60 days
  - Monthly income versus expenses
- FR7.2 The system shall allow generation and export of periodic reports (e.g., monthly or quarterly).
- FR7.3 The system shall visually represent financial data using charts or graphs.

## **8. System Administration and Data Management**

- FR8.1 The system shall store all property, tenant, lease, and financial data in a centralized database.
- FR8.2 The system shall validate all input fields to prevent invalid or incomplete data entries.
- FR8.3 The system shall maintain data consistency and integrity across all modules.
- FR8.4 The system shall provide data backup and recovery functionality.
- FR8.5 The system shall ensure secure data transmission through encryption mechanisms.