

Software Requirements Specification

For

HomeWoW System

Version 1.0

Group No.: 4

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Date: 03/12/2023

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Revisions

Version	Primary Author	Description of version	Date Completed

1 Project Introduction

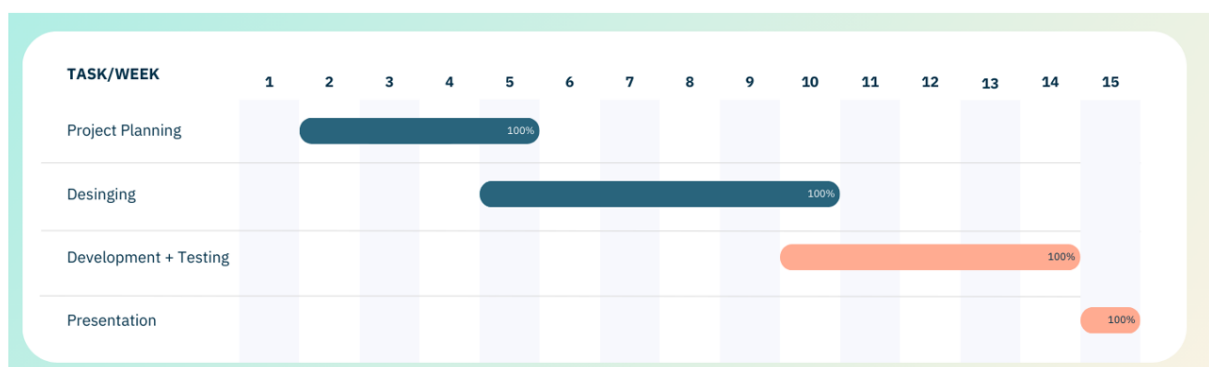
1.1 Team Members

Name	Actor
SADMAN ZULFIQUER	Owner/Agent
TAN TENG HUI	Tenant
TENG WEI JOE	Admin
HO TECK FUNG	Searcher & Admin

1.2 Problem Statement

Many individuals face challenges in the house rental process due to various factors. One major issue is the lack of a robust verification system to ensure that tenants are renting from legitimate property owners or agents with valid property documents, leading to potential fraud & disputes. Additionally, the preference for long-term rentals by many owners & agents poses difficulties for those seeking short-term tenancy agreements. Managing an excessive amount of documentation during the rental process is another significant task, contributing to inefficiencies & potential errors. Moreover, the absence of transparent marketplace rent prices makes it difficult for tenants to find affordable & fair priced rental properties, further complicating the rental experience.

1.3 Project Plan



2 System Overview

2.1 Description

The HomeWoW web-app is a comprehensive property management platform designed to enhance the user experience through a robust verification system. Ensuring the integrity of the rental process, the system implements a thorough verification mechanism, confirming the legitimacy of property owners and agents by validating their submitted property documents. This feature instills trust and confidence in users seeking rental properties. The platform caters to diverse rental needs by accommodating both short and long-term tenancies, offering flexibility to users based on their preferences. A key functionality of the system is the provision of a seamless Tenancy Agreement feature, allowing property owners and tenants to create, review, and sign agreements efficiently. This makes a more efficient rental process, minimizing paperwork and ensuring a secure promised foundation for both parties. Additionally, the system prioritizes transparency by providing accurate and up-to-date market prices, empowering users to make informed decisions. Altogether this revolutionizes the property rental landscape by prioritizing security, flexibility, efficiency, and transparency for property owners, agents, and tenants.

2.2 Actors

Actor	Use Cases
Owner/Agent	<ol style="list-style-type: none">1. Login2. Sign Up3. Profile Management4. Change Password5. Add Property6. Remove Property7. Update Property Information8. Upload Property Documents9. View My Properties10. See Updates from Payment API11. Receive Agreement Request12. Contact Support13. Dashboard14. View Properties status15. Logout

Actor	Use Cases
Tenant	<ol style="list-style-type: none">1. Sign Up2. Log In3. Profile management4. Change Password5. Search Properties6. View property details7. Make an Appointment8. Sent Agreement request9. View Outstanding Balance10. Pay the bill using Payment Gateway11. View Invoices12. Dashboard13. Contact Support14. View Agreement15. View Receipt16. Logout

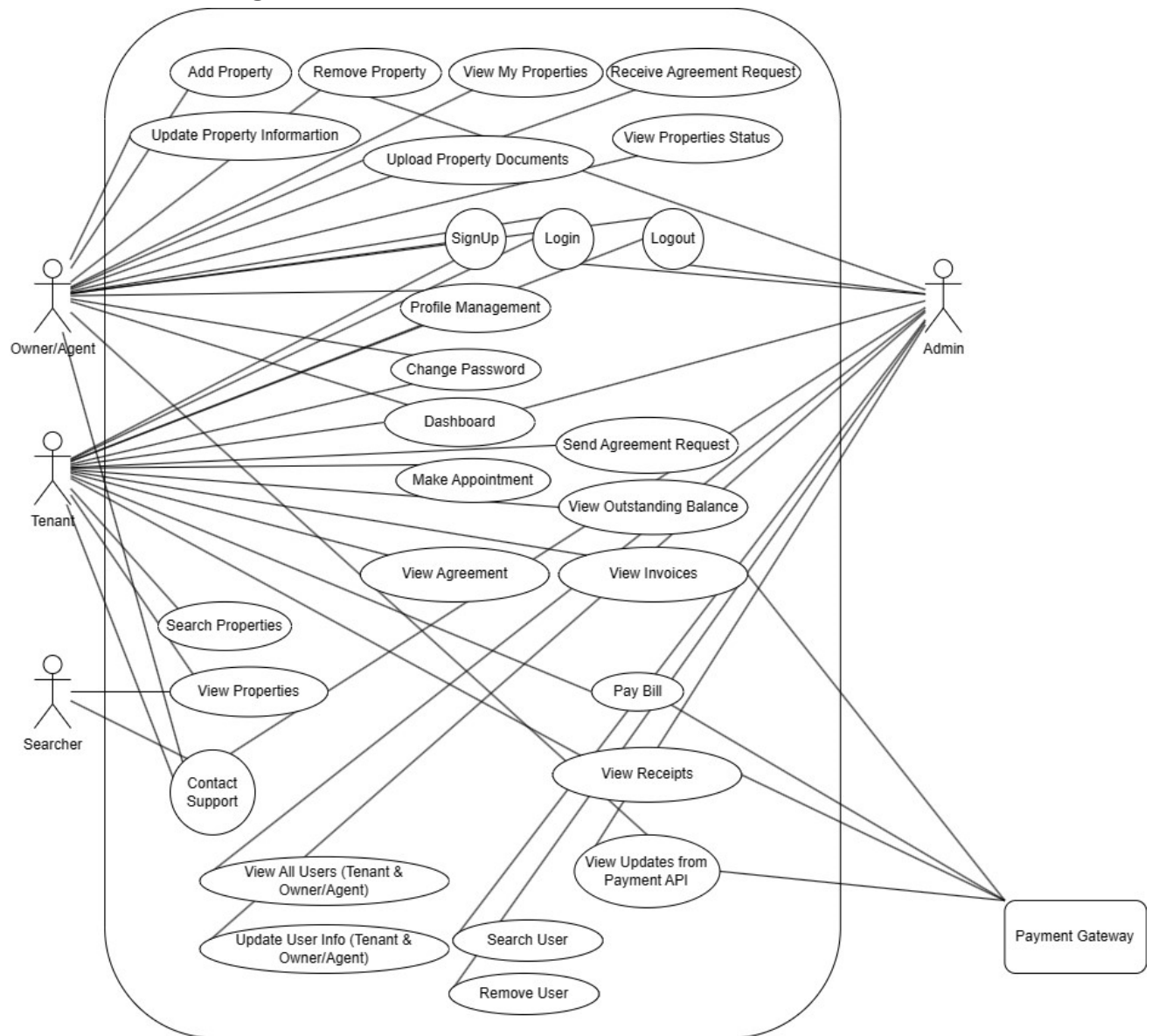
Actor	Use Cases
Admin	<ol style="list-style-type: none">1. Login2. Dashboard3. View Updates from Payment API4. View All Users (Tenant & Owner/Agent)5. Search User (Tenant & Owner/Agent)6. Update User Info (Tenant & Owner/Agent)7. Remove User8. Remove Property9. Contact Support10. Logout

Actor	Use Cases
Seacher (User is not Logged In the System)	<ol style="list-style-type: none">1. View Properties2. Contact Support

2.3 Assumptions & Dependencies

- All property listings submitted by owners or agents will be successfully added to the platform without technical issues.
- The platform is designed for use exclusively within Malaysia, with all users (owners, agents, and tenants) located within the country.
- The assumption is made that all property documents submitted by owners or agents are legally valid and compliant with local regulations.
- It is assumed that all verification procedures are done instantly.
- The system assumes payment gateway works without any technical failures.
- The system assumes reliable internet connectivity for both front-end and back-end operations.
- It is assumed that the customer support system is responsive and capable of addressing user inquiries and issues promptly.
- Owners or agents are expected to consistently update the availability status of their properties based on occupancy and other factors.
- The system is dependent on a single database to store and manage all relevant data.
- The system assumes that the database has sufficient storage capacity to accommodate the expected volume of property listings and user data.
- The system is assumed to work when accessed simultaneously from all actors.
- It is assumed that there are already few pre-existing user's & properties in the system.

2.4 Use Case Diagram

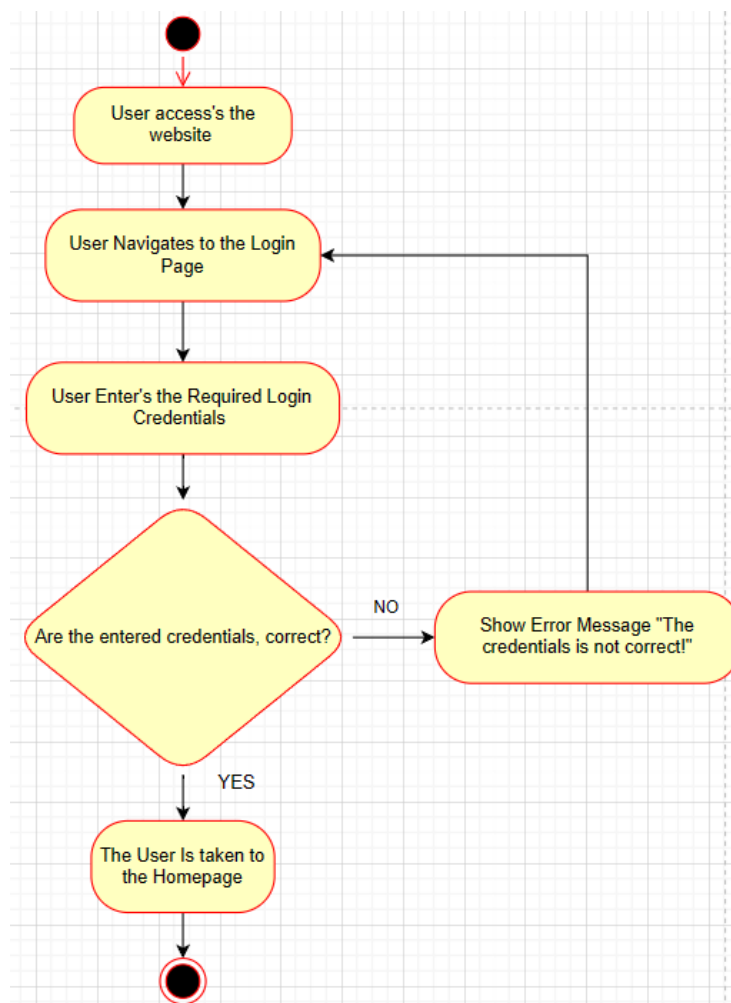


3 Scenario - Based Modeling

3.1 Actor 1 - Owner/Agent

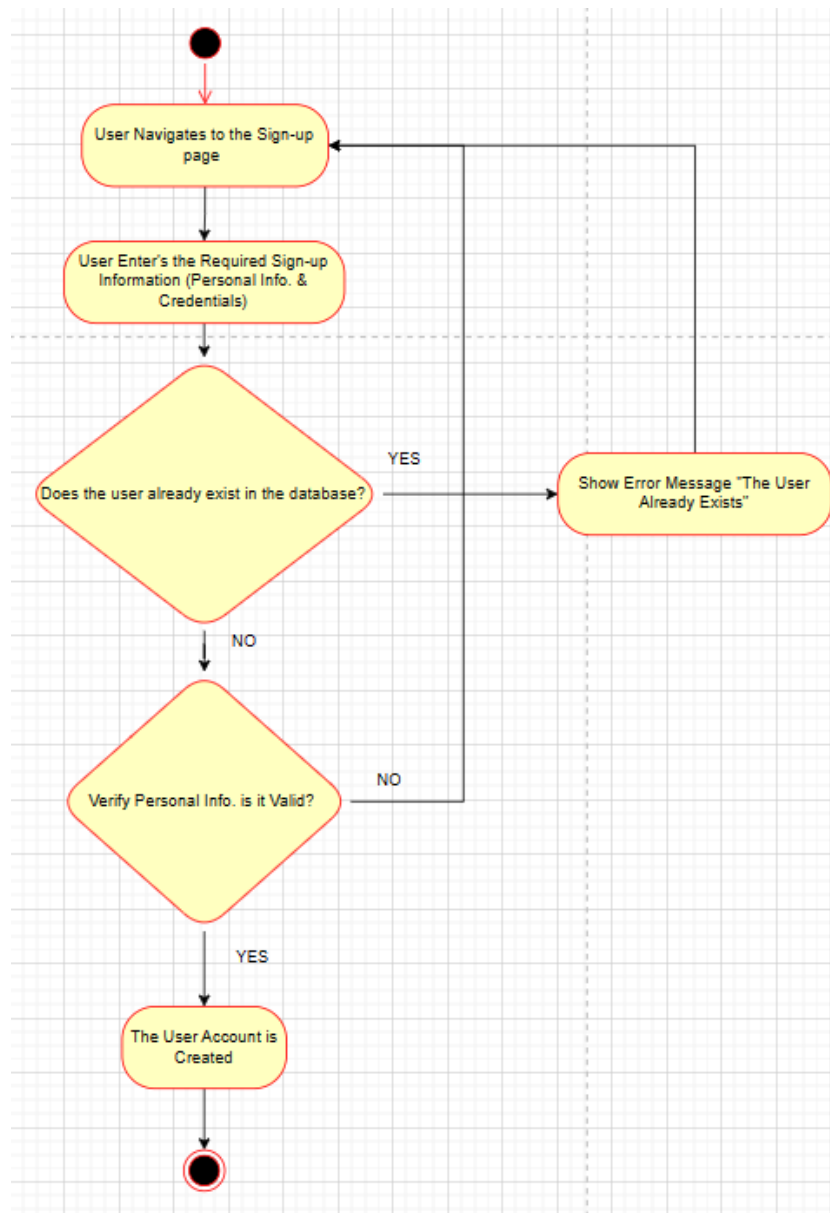
3.1.1 Use Case 1 - Login

This use case involves the process of a user accessing the web app by entering their registered credentials, consisting of an email address and password. The system validates the provided information, granting access to the web app upon successful authentication.



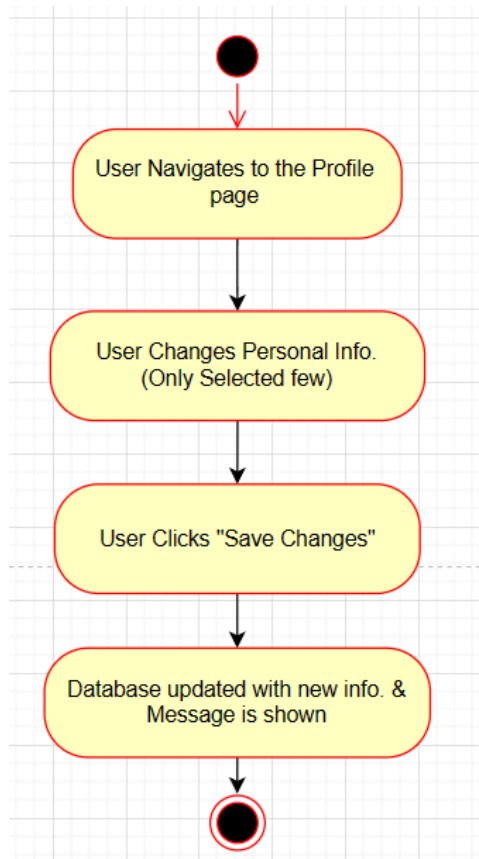
3.1.2 Use Case 2 - Sign up

In the Sign-Up use case, a new user creates an account within the HomeWoW web app. The user provides essential information such as their name, email address, and password. The system validates the entered details, and upon successful registration, the user gains access to the features and functionalities.



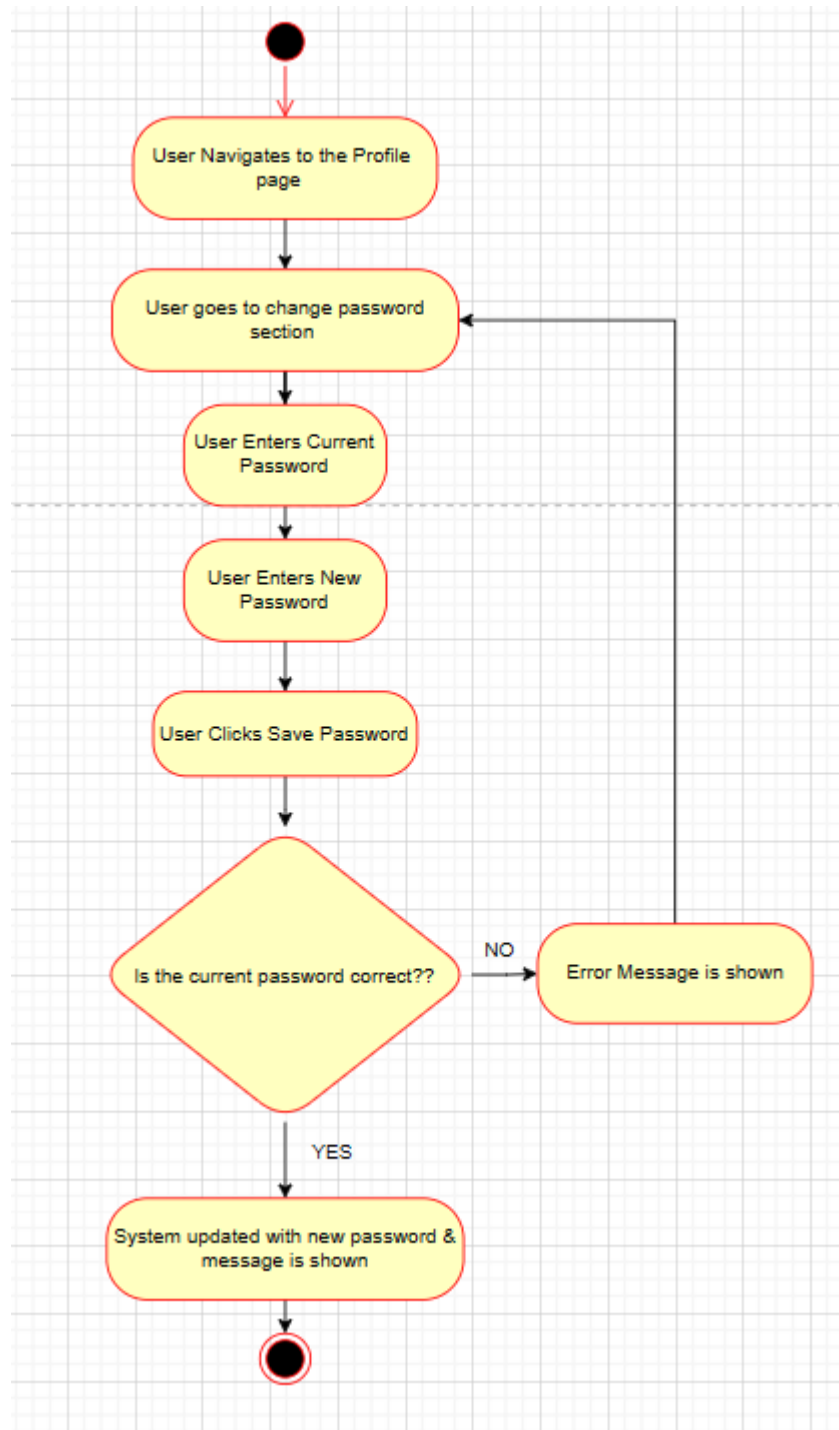
3.1.3 Use Case 3 - Profile Management

This use case allows tenants to manage their profile information within the system. users can edit personal details, preferences, and other relevant information to keep their profiles up to date.



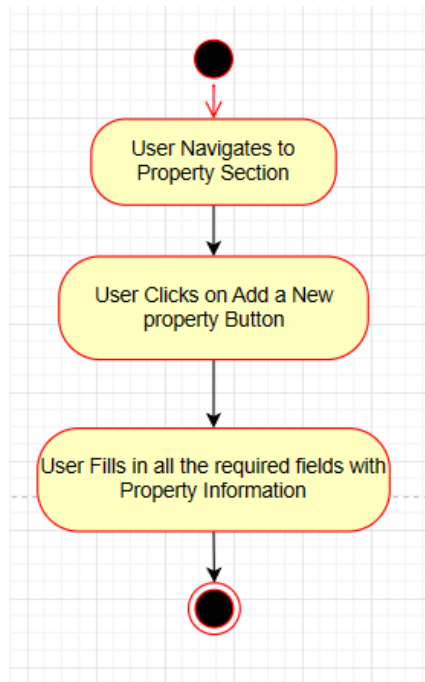
3.1.4 Use Case 4 - Change Password

The Change Password use case allows a user to modify their existing password for security reasons. The user enters their current password and provides a new one. The system verifies the current password, and if validation is successful, it updates the user's password to the new one, enhancing the security of their account.



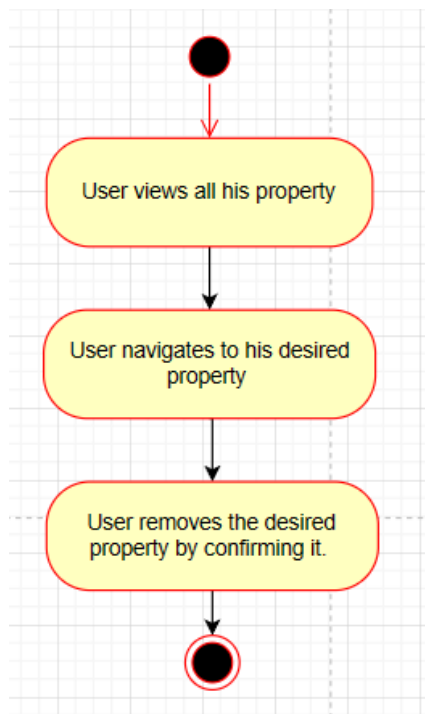
3.1.5 Use Case 5 - Add Property

This use case allows the user to Add property with all the required Information in the system which is only visible to this user.



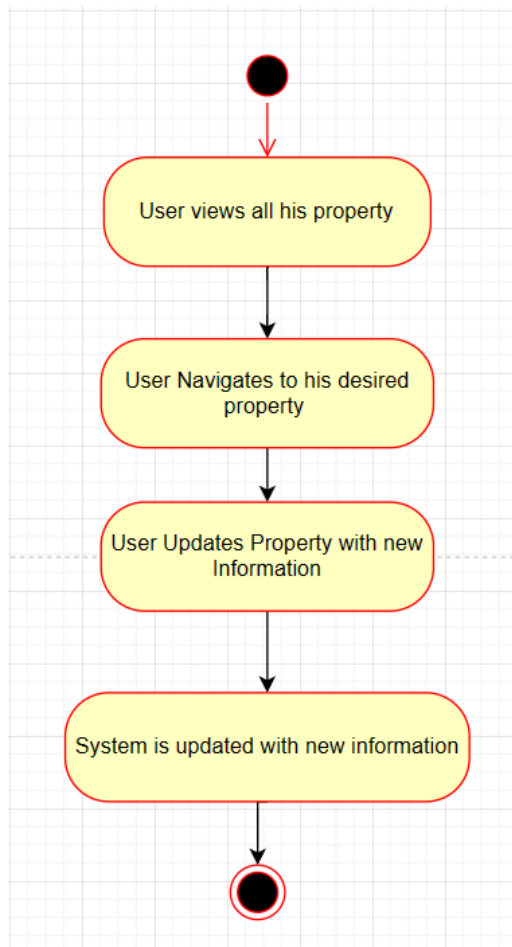
3.1.6 Use Case 6 - Remove Property

This use case allows the user to remove a property from the system.



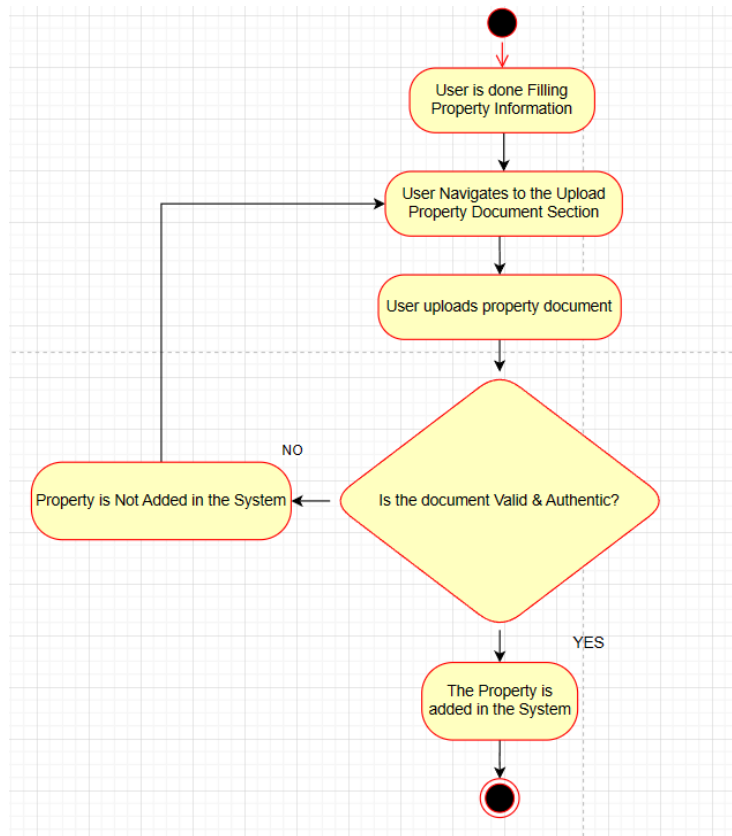
3.1.7 Use Case 7 - Update Property Information

This use case allows the user to update any existing property information in the system.



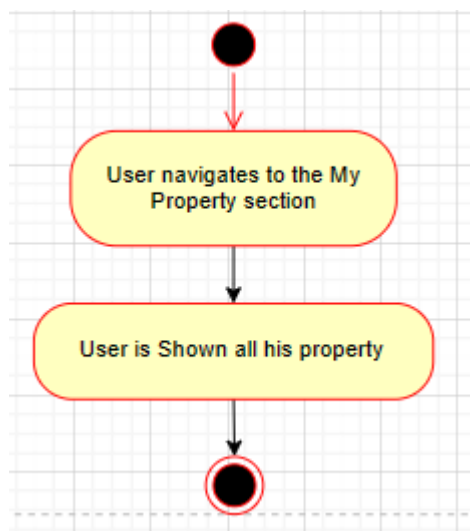
3.1.8 Use Case 8 - Upload Property Documents

This use case allows the user to upload property documents for verification after the documents are verified the property is added in the system for the other users (tenants) to view.



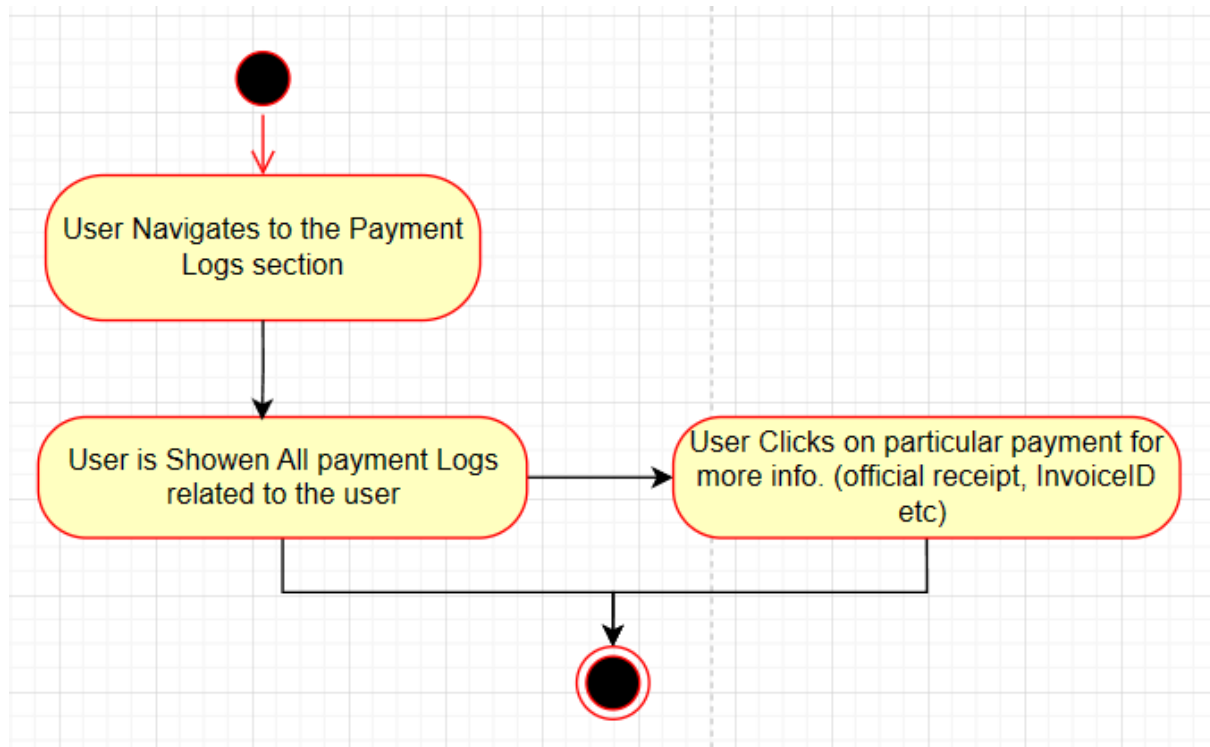
3.1.9 Use Case 9 - View My Properties

This use case allows the user to view all his properties in the system.



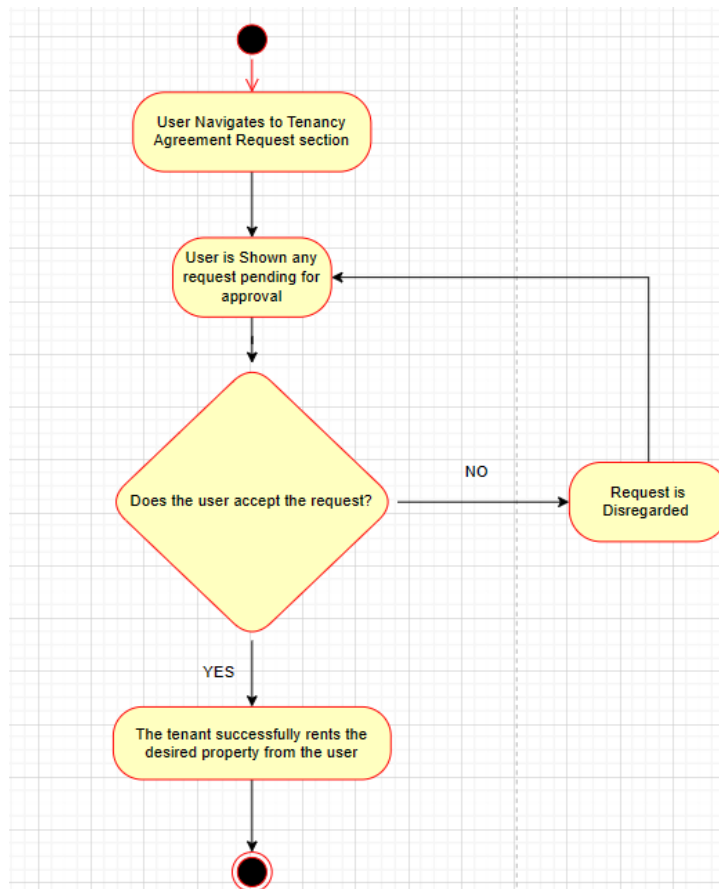
3.1.10 Use Case 10 - View Updates from Payment API

This use case allows the user to view payment logs from the Payment Gateway system



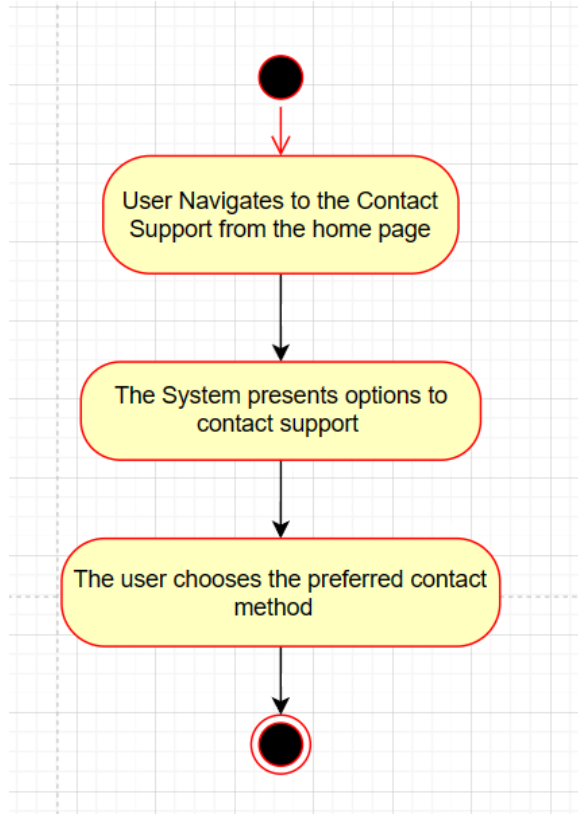
3.1.11 Use Case 11 - Receive Agreement Request

This use case allows the user to receive tenancy agreement request sent by the tenant & make a decision



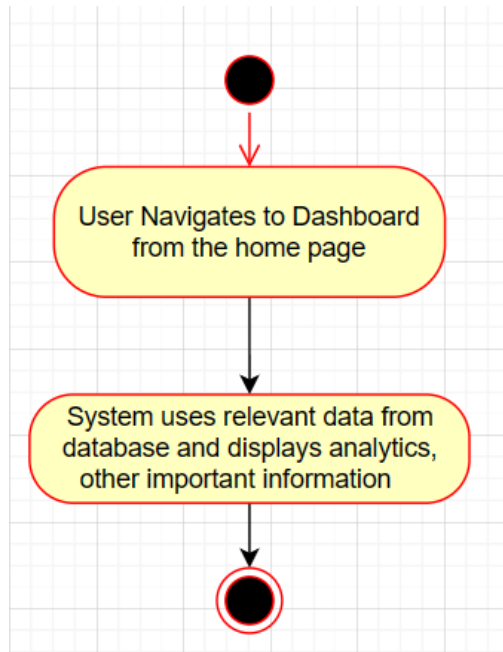
3.1.12 Use Case 12 - Contact Support

This use case allows users to reach out to customer support for assistance with queries, issues, or any required help related to the platform's usage or any related matters.



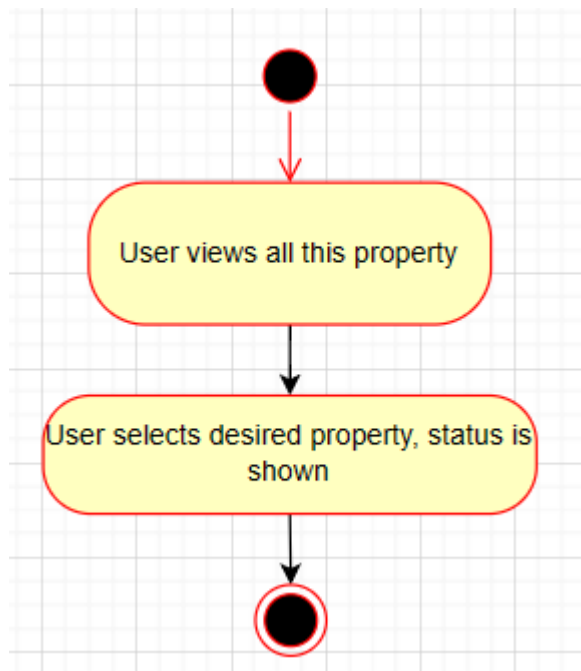
3.1.13 Use Case 13 - DashBoard

This use case involves users accessing the dashboard, where they can view a summarized overview of their account and other relevant information.



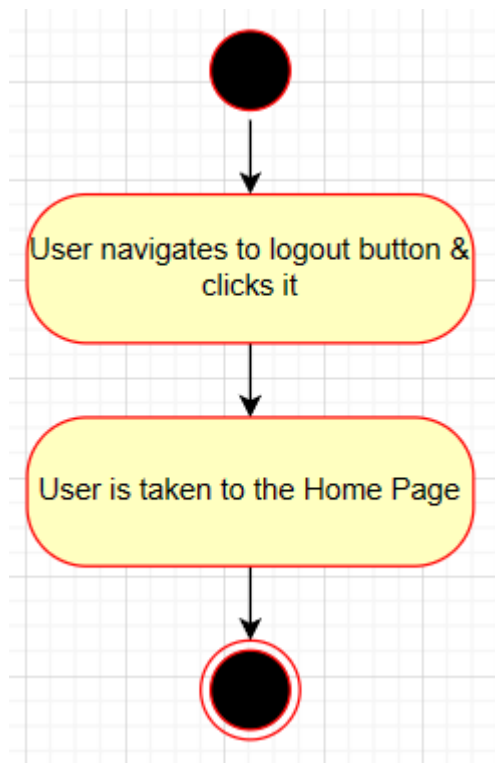
3.1.14 Use Case 14 - View Properties Status

This use case allows users to view property status such as occupancy, contact period, etc



3.1.15 Use case 15 - Logout

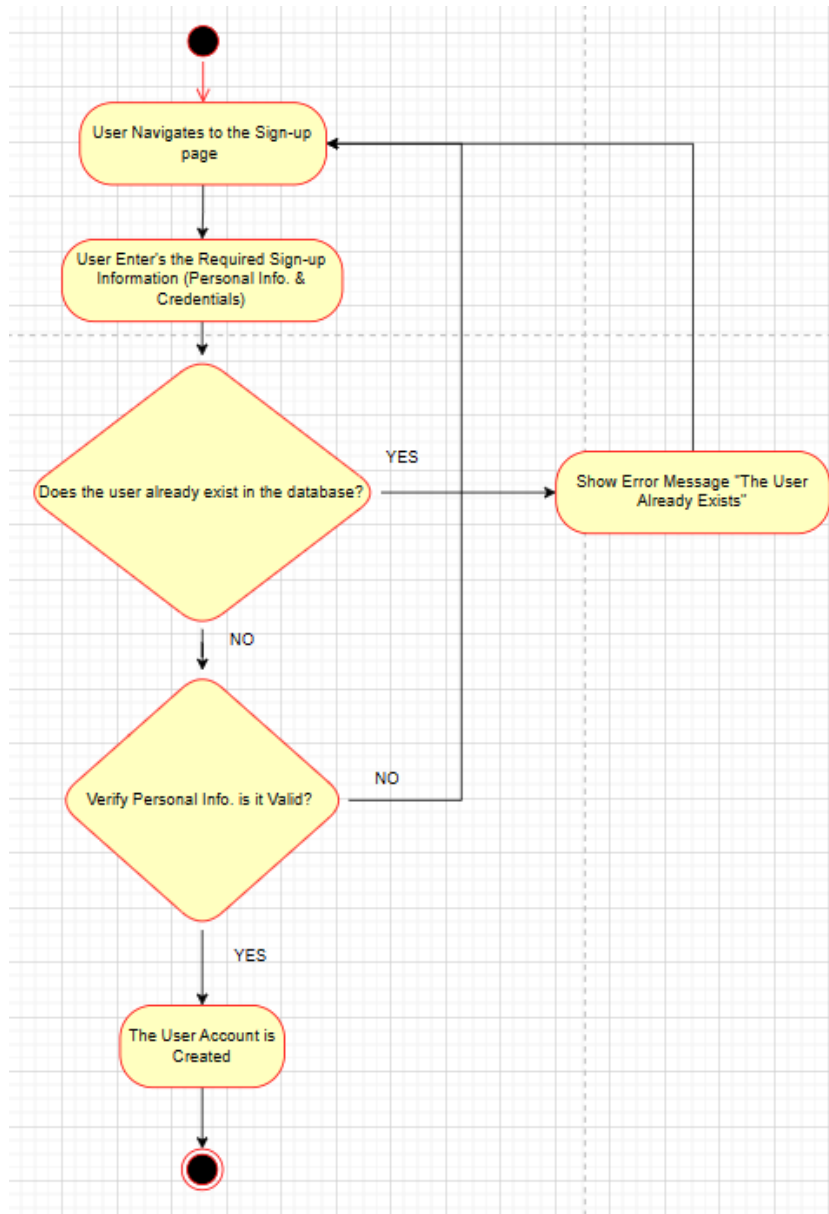
This use case allows users to logout from their own account and the user will be brought back to HomeWoW home page.



3.2 Actor 2 - Tenant

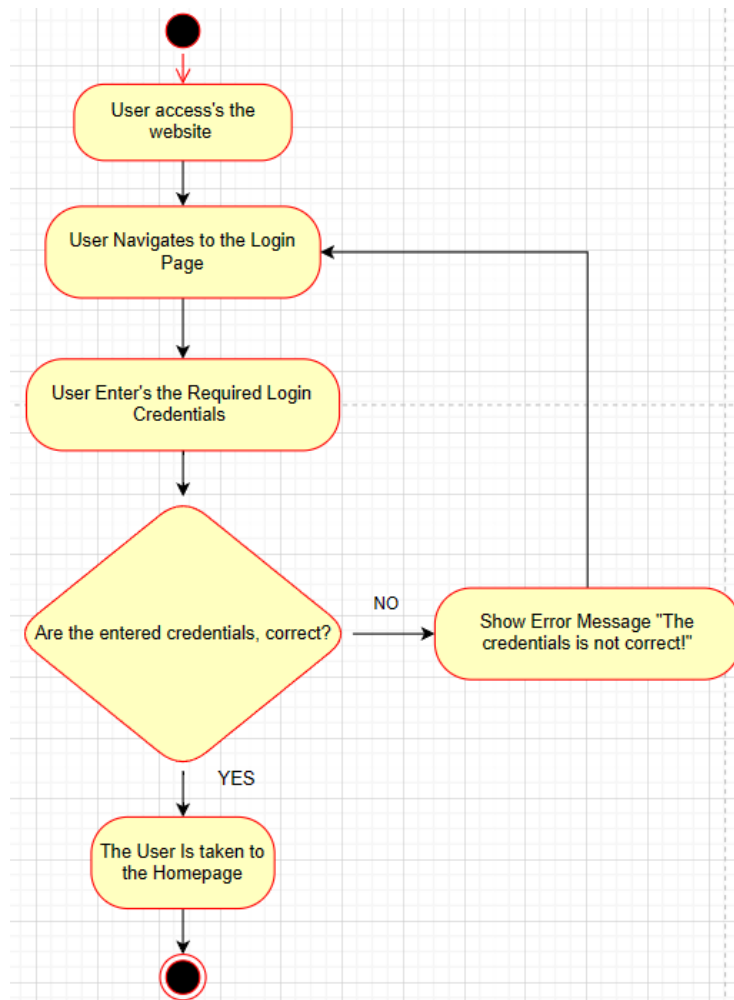
3.2.1 Use Case 1 - Sign up

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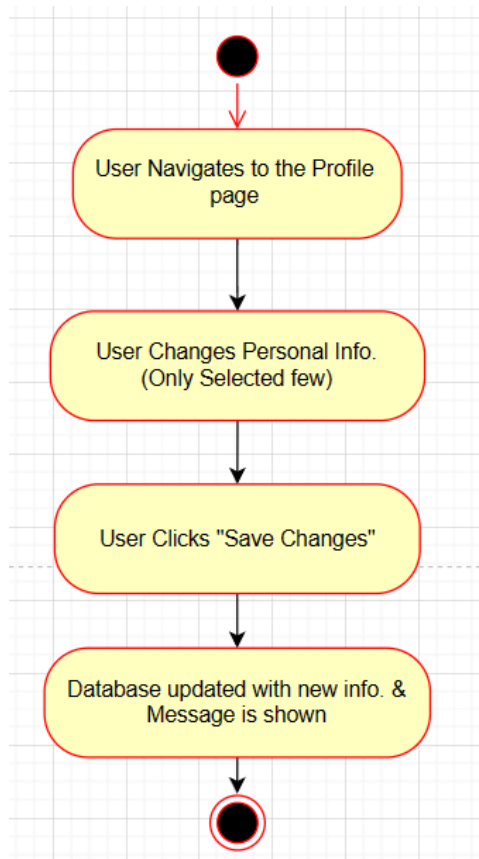
3.2.2 Use Case 2 - Login

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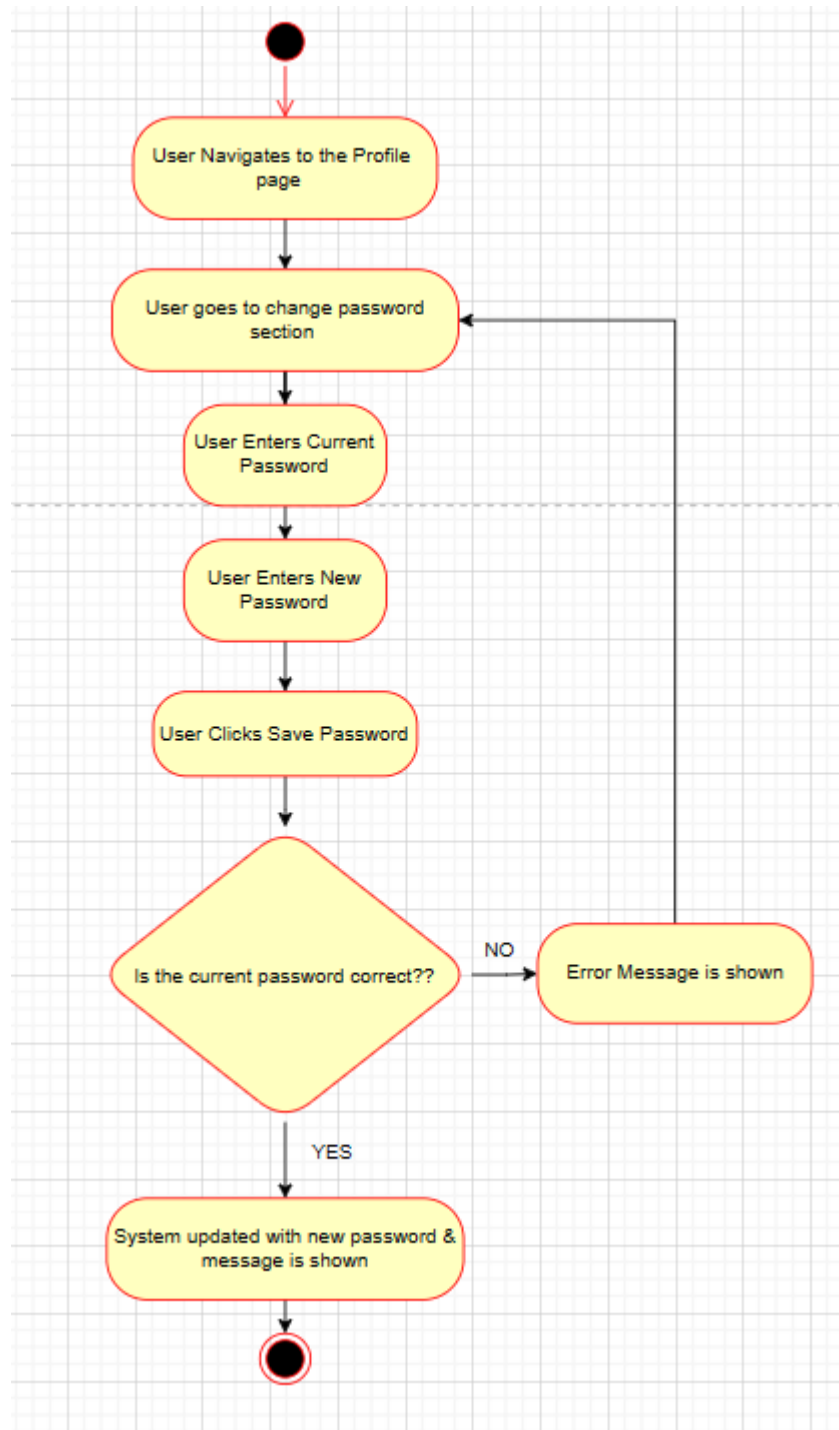
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This use case allows tenants to manage their profile information within the system. users can edit personal details, preferences, and other relevant information to keep their profiles up to date.



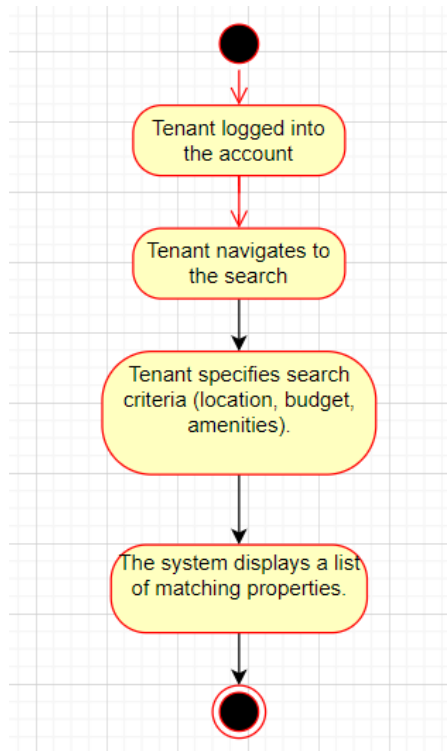
3.2.4 Use Case 4 - Change Password

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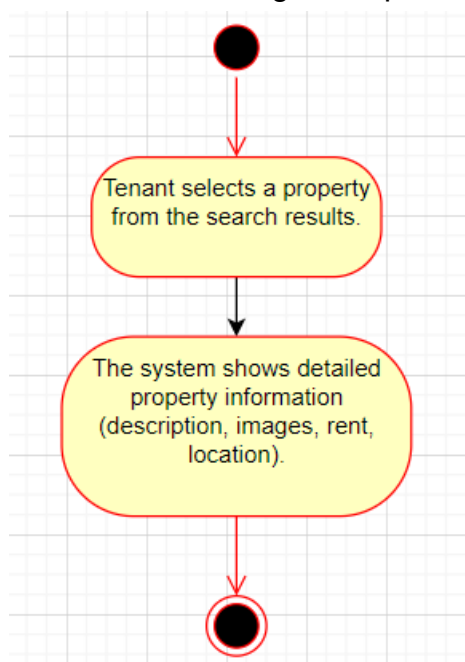
3.2.5 Use Case 5 - Search Property

This use case involves tenants searching for available properties on the platform based on specific criteria such as location, budget, or amenities.



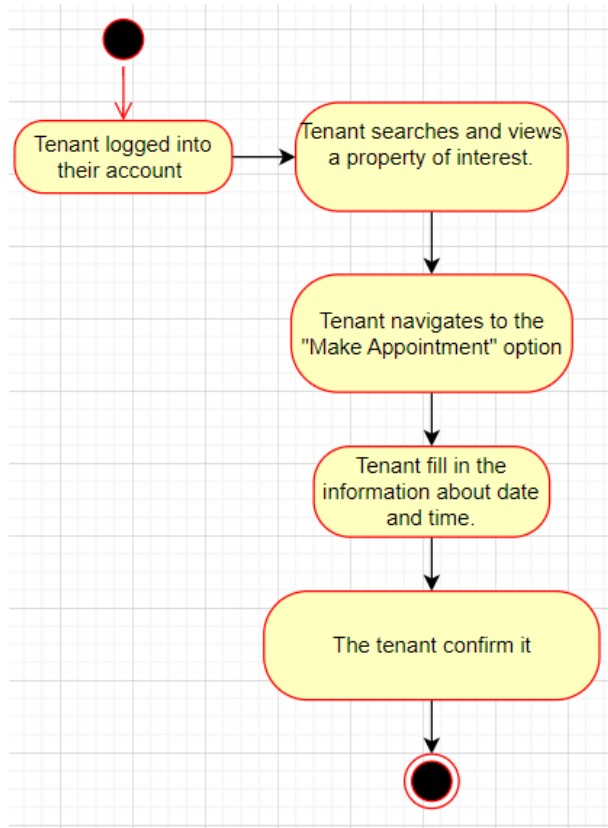
3.2.6 Use Case 6 - View Property Details

This use case enables tenants to view detailed information about a specific property of interest, including descriptions, images, rent, location, and other relevant details.



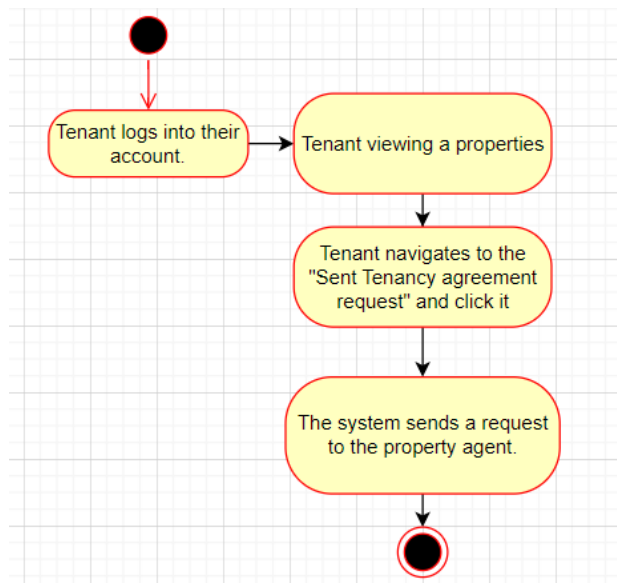
3.2.7 Use Case 7 - Make Appointment

This use case allows tenants to make appointments with the owner/agent in the desired property and view the property.



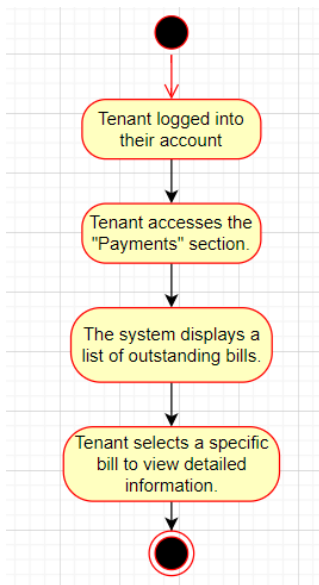
3.2.8 Use Case 8 - Sent Agreement request

This use case involves tenants requesting and viewing the tenancy agreement for a specific property. It includes the process of sending a request.



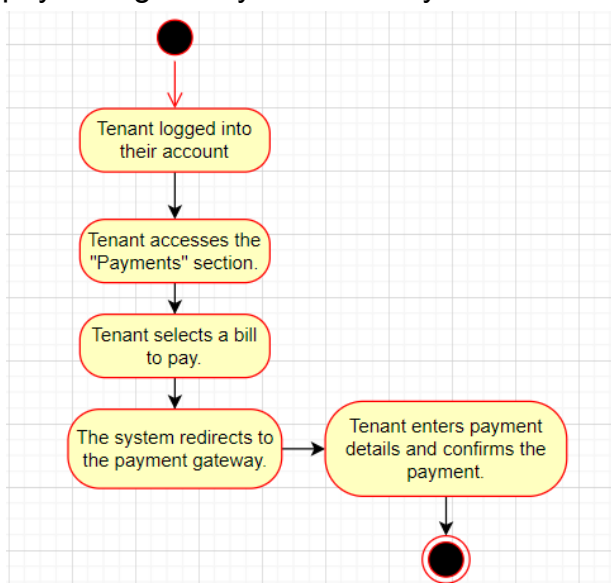
3.2.9 Use Case 9 - View Outstanding balance

This use case allows tenants to view details of outstanding balance related to their tenancy within the platform.



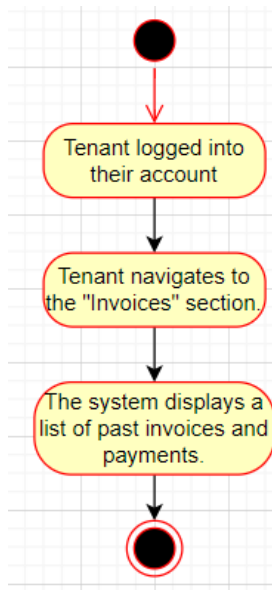
3.2.10 Use Case 10 - Pay the bill using Payment Gateway

This use case involves tenants making payments securely through the integrated payment gateway within the system.



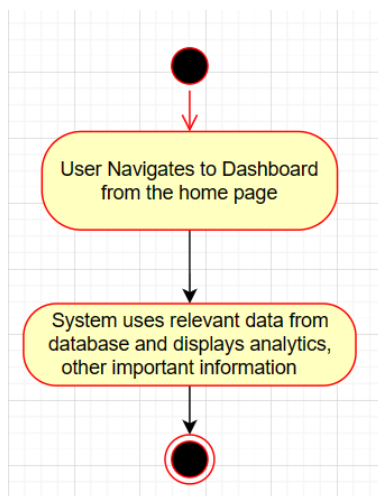
3.2.11 Use Case 11 - View Invoices

This use case enables tenants to view past invoices, payment history, or records of bills within their account.



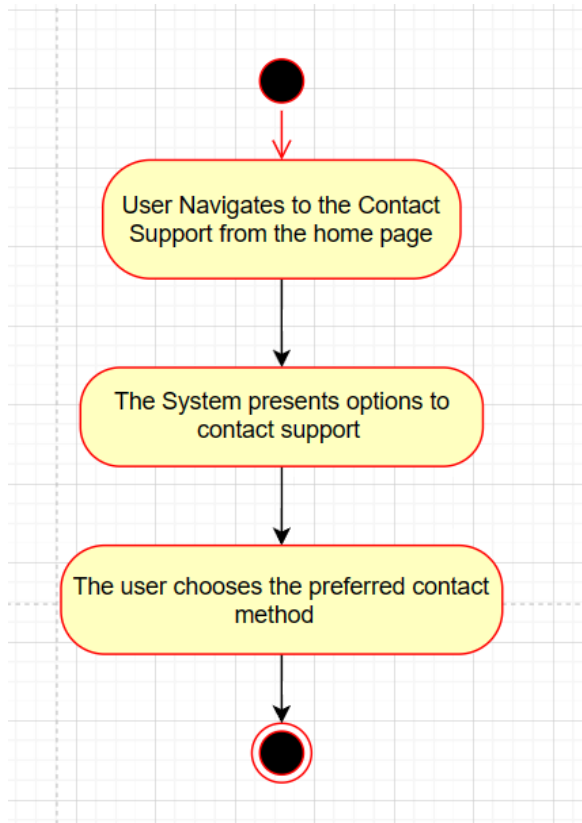
3.2.12 Use Case 12 - Dashboard

This use case involves users accessing the dashboard, where they can view a summarized overview of their account, agreement, payment, and other relevant information.



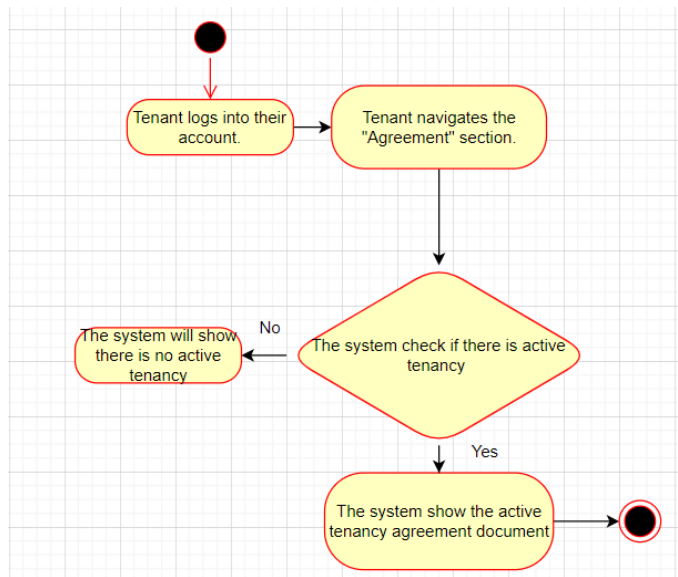
3.2.13 Use Case 13 - Contact Support

This use case allows users to reach out to customer support for assistance with queries, issues, or any required help related to the platform's usage or any related matters.



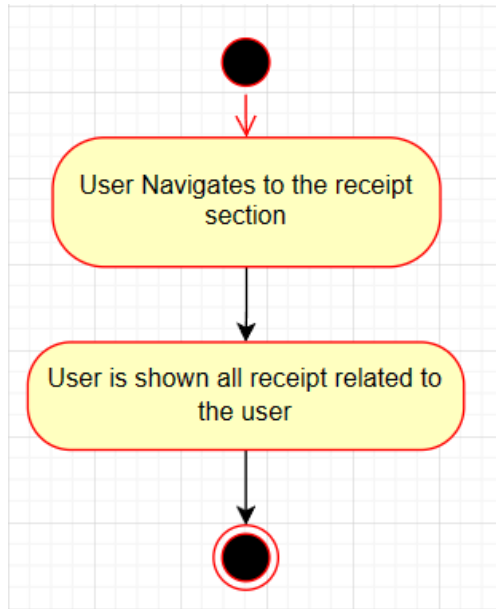
3.2.14 Use Case 14 - View agreement

This use case outlines the process by which tenants access and review the approved tenancy agreement for a specific property after the owner/agent accepts the agreement between them.



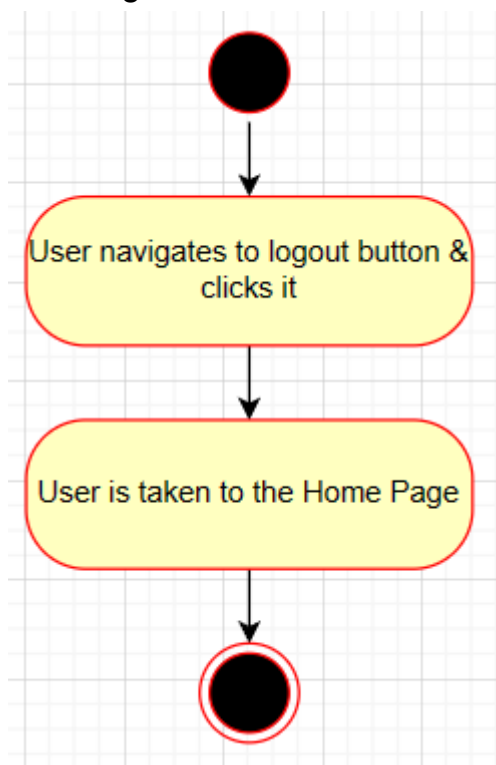
3.2.15 Use Case 15 - View Receipt

This use case outlines how tenants can access and review receipts of their past payments.



3.1.16 Use case 16 - Logout

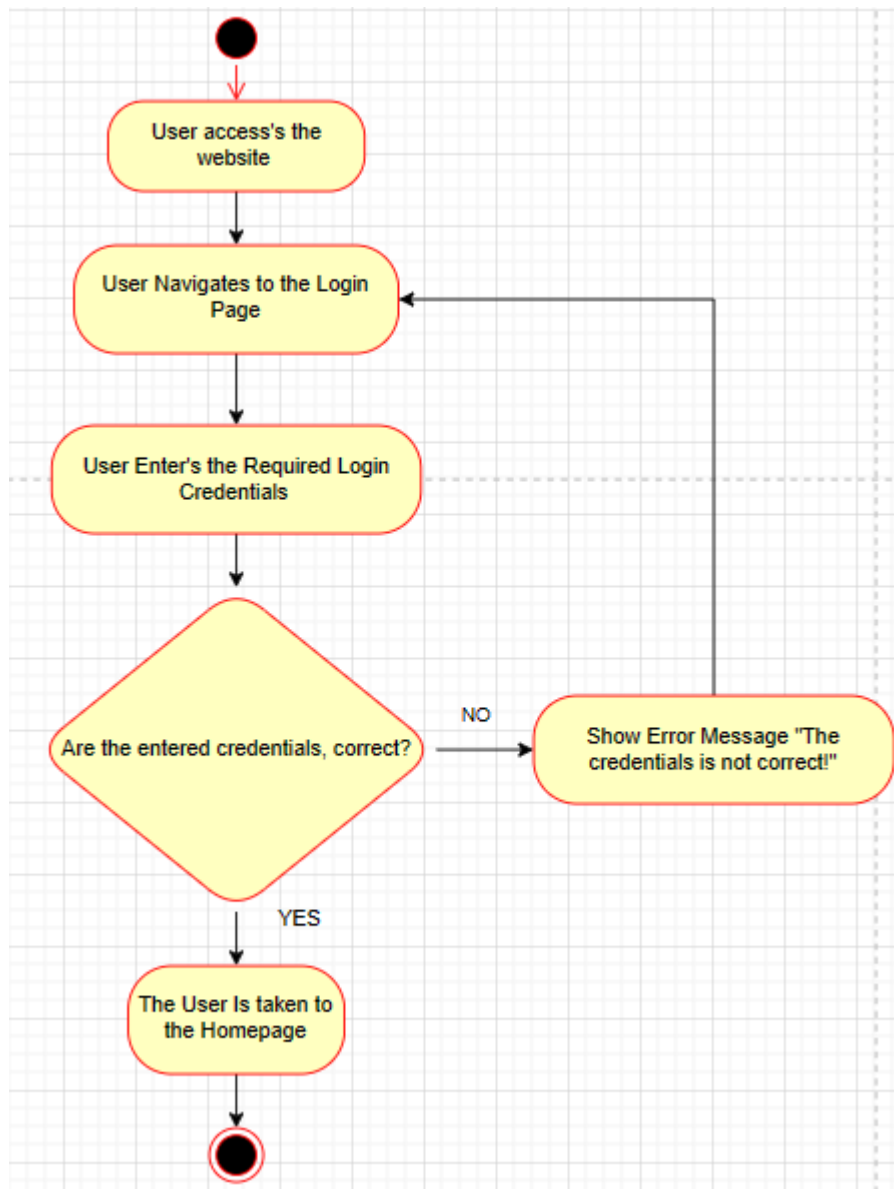
This use case allows users to logout from their own account and the user will be brought back to HomeWoW home page.



3.3 Actor 3 - Admin

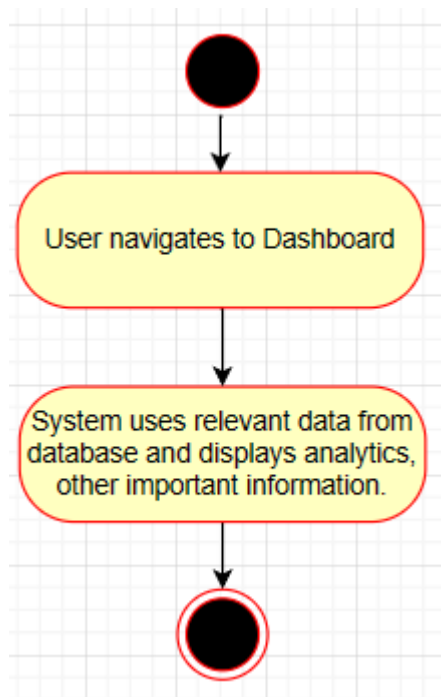
3.3.1 Use case 1 - Login

This use case involves the process of an admin accessing the web-app by entering their login credential. The system validates the provided credential, granting access to the admin home page of the web-app upon successful authentication.



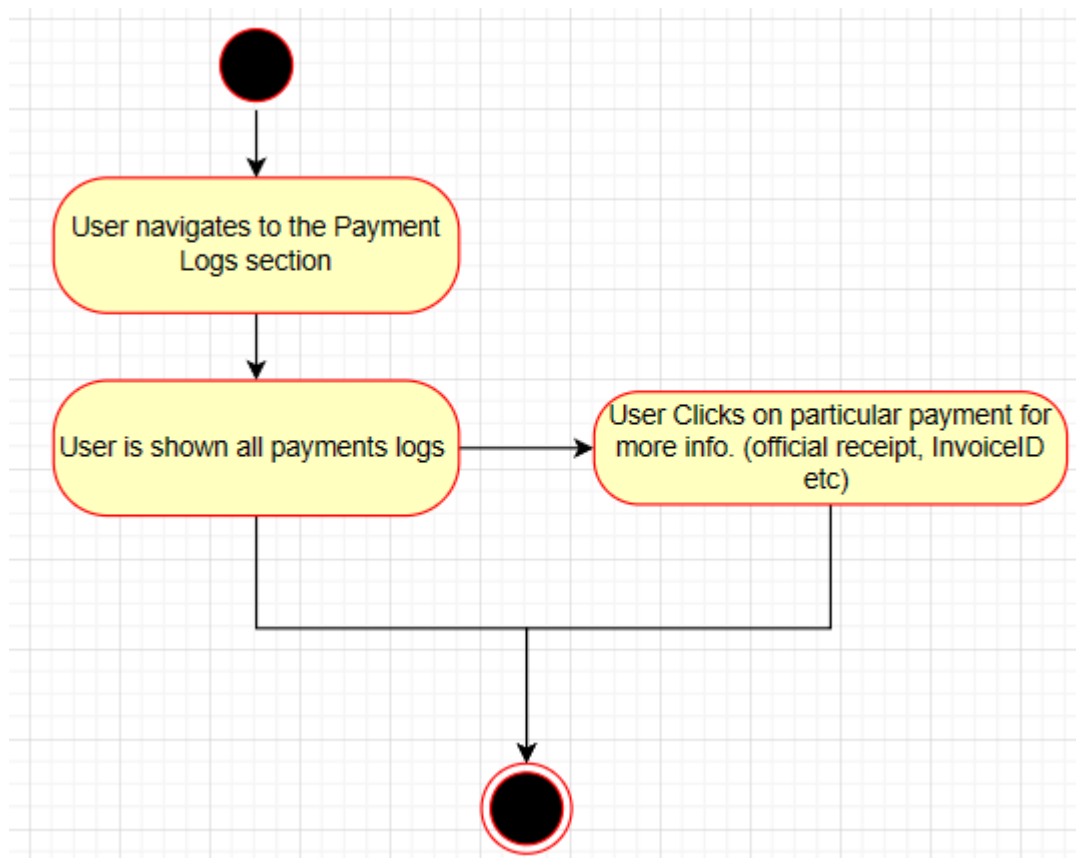
3.3.2 Use case 2 - Dashboard

This use case provides a centralized dashboard displaying key metrics, such as the number of registered users, active properties and other relevant information.



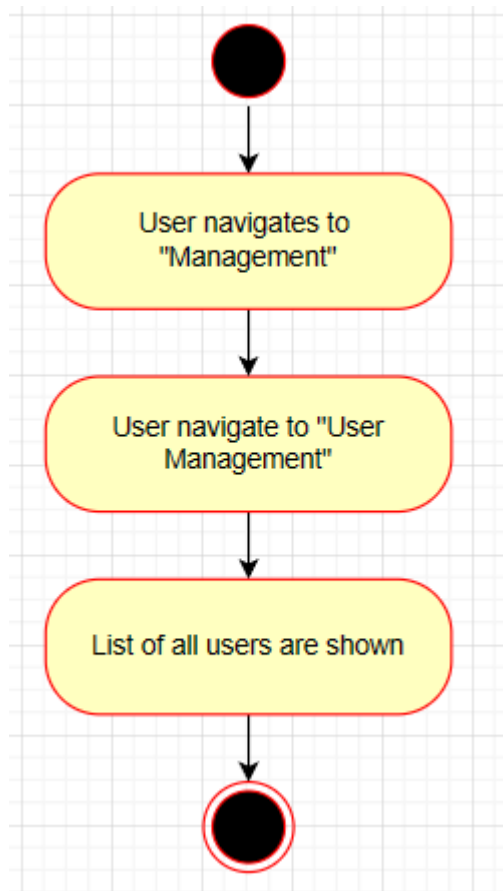
3.3.3 Use case 3 - View Updates from Payment API

This use case allows the user to view payment logs from the Payment Gateway system.



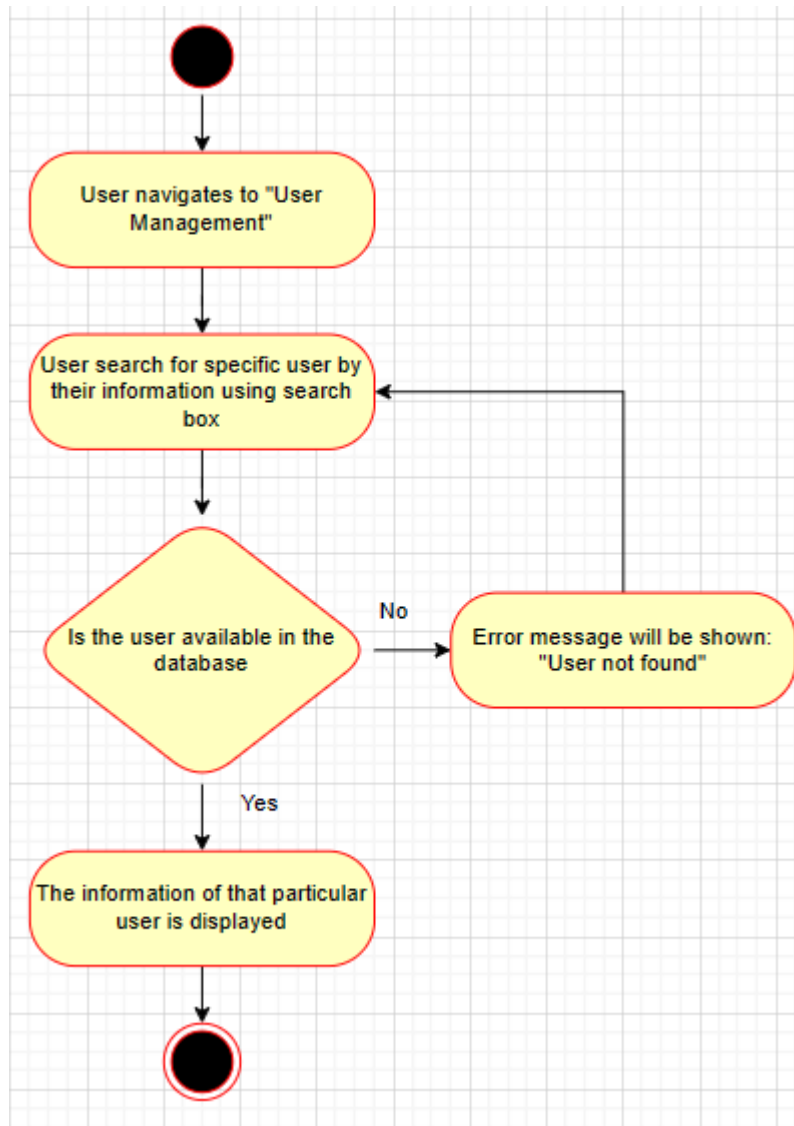
3.3.4 Use case 4 - View All Users (Tenant & Owner/Agent)

This use case allows users to view the status and information of registered users. A list of all users will be displayed.



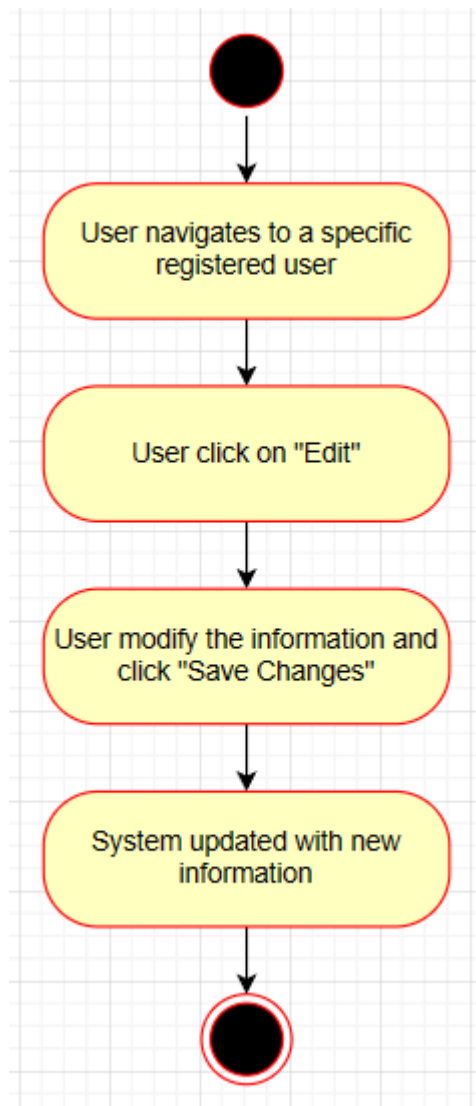
3.3.5 Use case 5 - Search User (Tenant & Owner/Agent)

This use case allows users to search for a specific user.



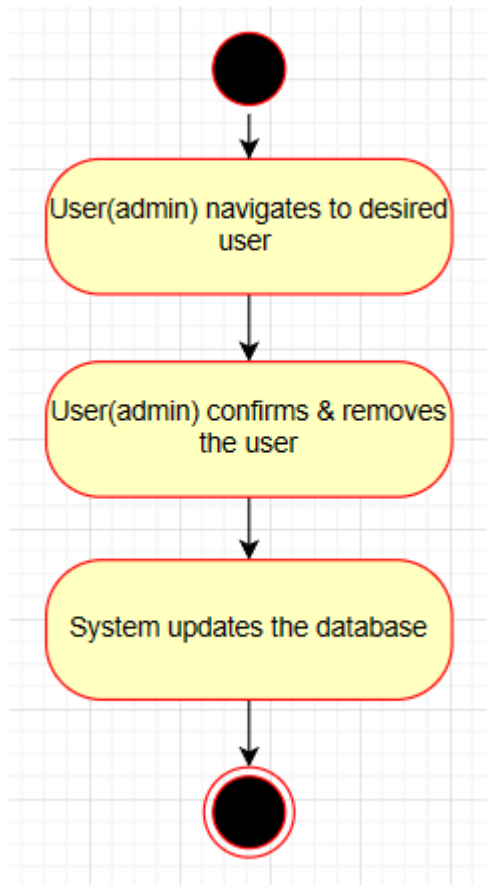
3.3.6 Use case 6 - Update User Info (Tenant & Owner/Agent)

This use case allows users to update the information of users (Tenant & owner/agent).



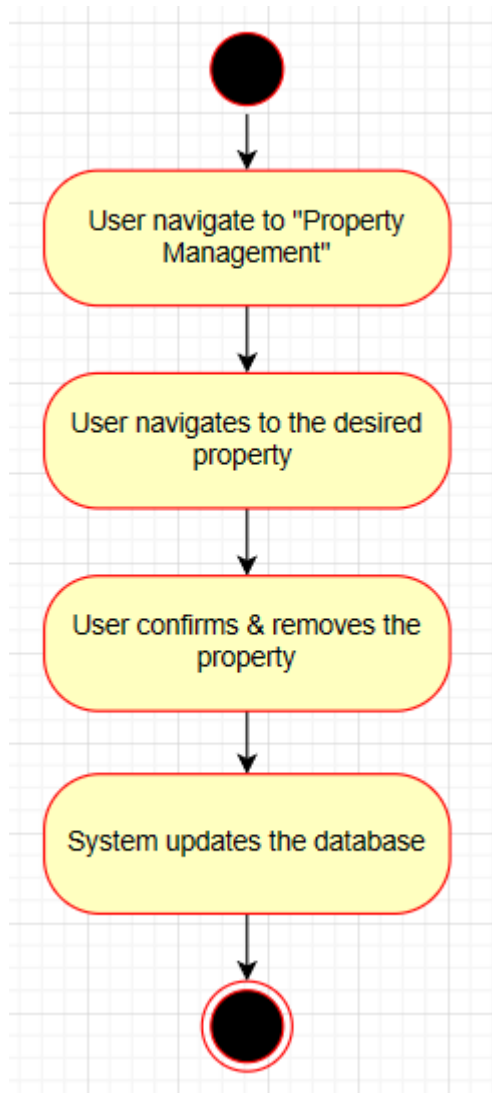
3.3.7 Use case 7 - Remove User

This use case allows users to remove a specific user from the user list on the web-app.



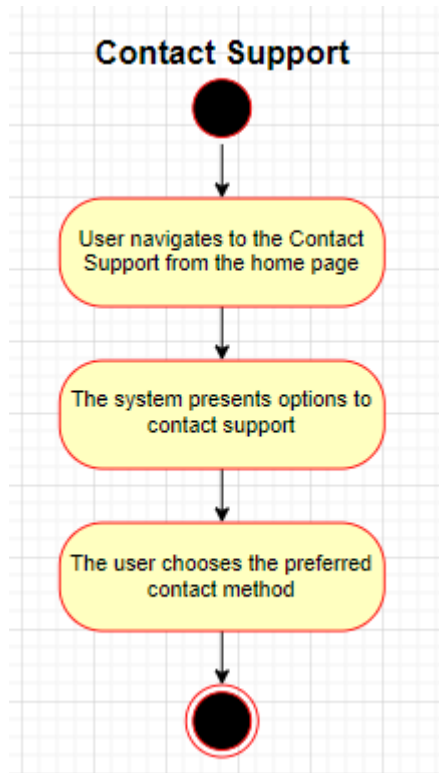
3.3.8 Use case 8 - Remove Property

This use case allows users to remove a specific property from the property list on the web-app.



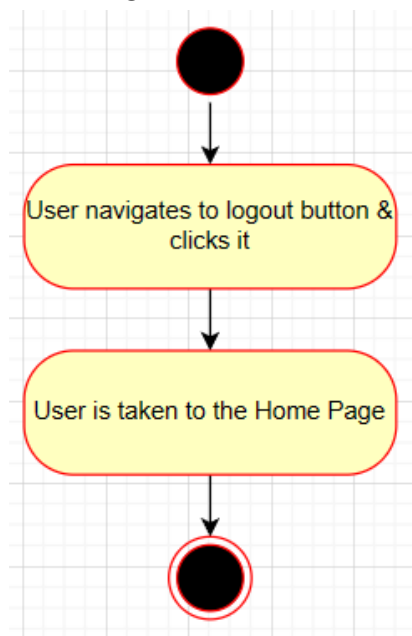
3.3.9 Use case 9 - Contact Support

This use case allows users to reach out to customer support for assistance with queries, issues, or any required help related to the platform's usage or any related matters.



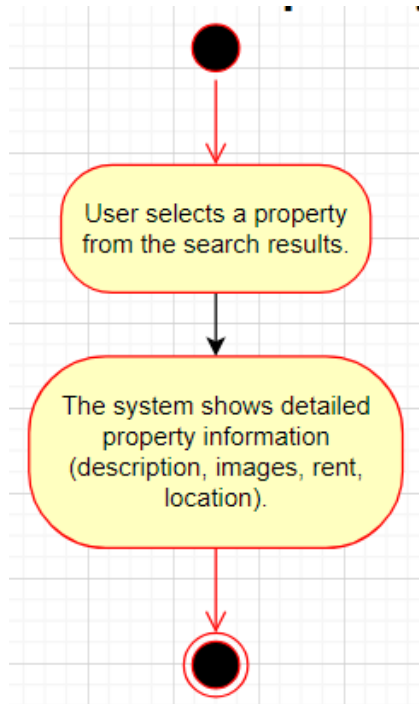
3.3.10 Use case 10 - Logout

This use case allows users to logout from their own account and the user will be brought back to HomeWoW home page.



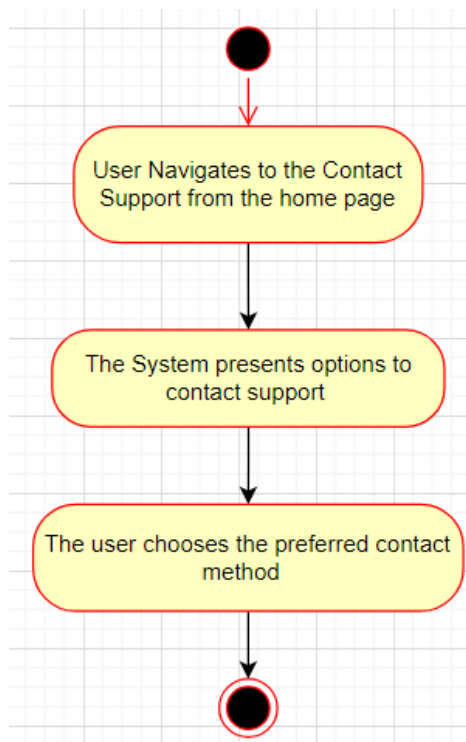
3.4 Actor 4 - Searcher

3.4.1 Use Case 1 - View Property Details



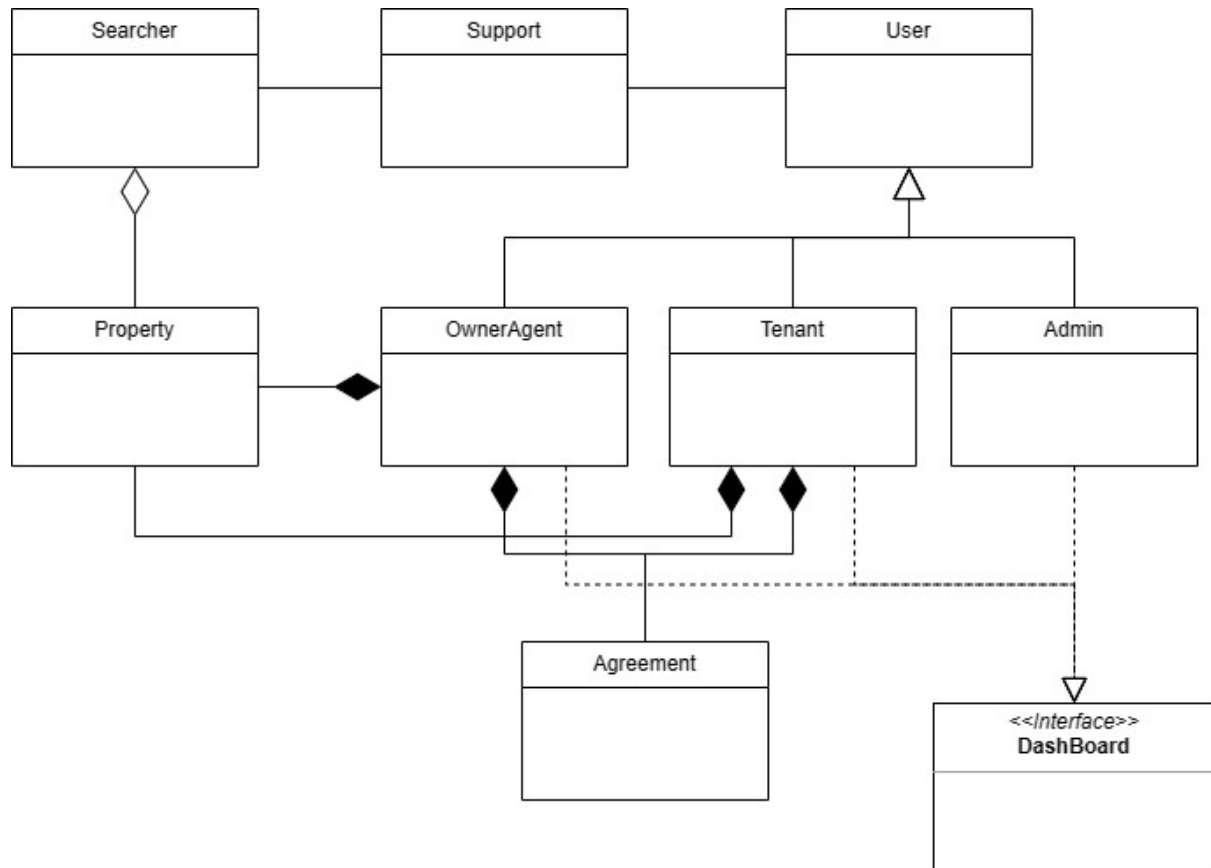
3.4.2 Use Case 2 - Contact Support

This use case allows users to reach out to customer support for assistance with queries, issues, or any required help related to the platform's usage or any related matters.



4 Requirement Modeling

4.1 Class Diagram



4.2 Classes

Class	Description
User	The User class serves as the superclass, encapsulating common attributes and behaviors shared by all users within the system. This includes essential information such as username, email, and contact details. It forms the foundation for more specialized user types.
Tenant	The Tenant subclass extends the User class and represents individuals seeking to rent properties. Tenants have attributes associated with their tenancy, including Agreement class through composition. They utilize the system to search for and apply to rent properties listed by OwnerAgents.
OwnerAgent	Extending the User class, the OwnerAgent subclass

	represents property owners or agents. OwnerAgents not only manage their profiles but also utilize the Agreement class through composition. This composition implies that OwnerAgents have an association with Agreement instances, allowing them to manage agreements with Tenants.
Admin	Admins, extending the User class, have elevated privileges for system management. They oversee user accounts, properties in the system, etc.
Property	The Property class encapsulates essential attributes and functionalities related to properties within the system. This class includes details such as property type, location, size, amenities, and rental terms. Owners or agents (OwnerAgents) utilize instances of this class to create and manage property listings, providing a comprehensive view for potential tenants. The class facilitates essential operations like property addition, editing, and status updates. Through composition, instances of the Property class are associated with both OwnerAgent and Tenant class.
Agreement	The Agreement class is composed of both OwnerAgent and Tenant subclasses. It encapsulates the details of agreements between property owners (OwnerAgents) and tenants. This class includes attributes such as terms, conditions, and duration, facilitating an organized approach to managing agreements within the system.
<<Interface>> Dashboard	The Dashboard interface is designed to enhance user experience. Implemented by OwnerAgents, Tenants, and Admins. It offers valuable insights and functionalities tailored to each user's role within the system.
Support	The Support class establishes a vital association with the User class, facilitating efficient communication and issue resolution within the system. It serves as the backbone for user assistance, ensuring that queries, concerns, and concerns are effectively addressed. Users, including OwnerAgents, Tenants, and Admins, can leverage the Support class to seek help, report problems, and receive timely responses from the support team.
Searcher	The Searcher class is a specialized user class designed for individuals who focus on exploring available properties within the system. By utilizing an aggregation relationship with the Property class, it is also associated with the Support class, providing users with the capability to easily contact support for assistance, report issues, or seek clarification during their property exploration journey.