

## **Functional Requirements:**

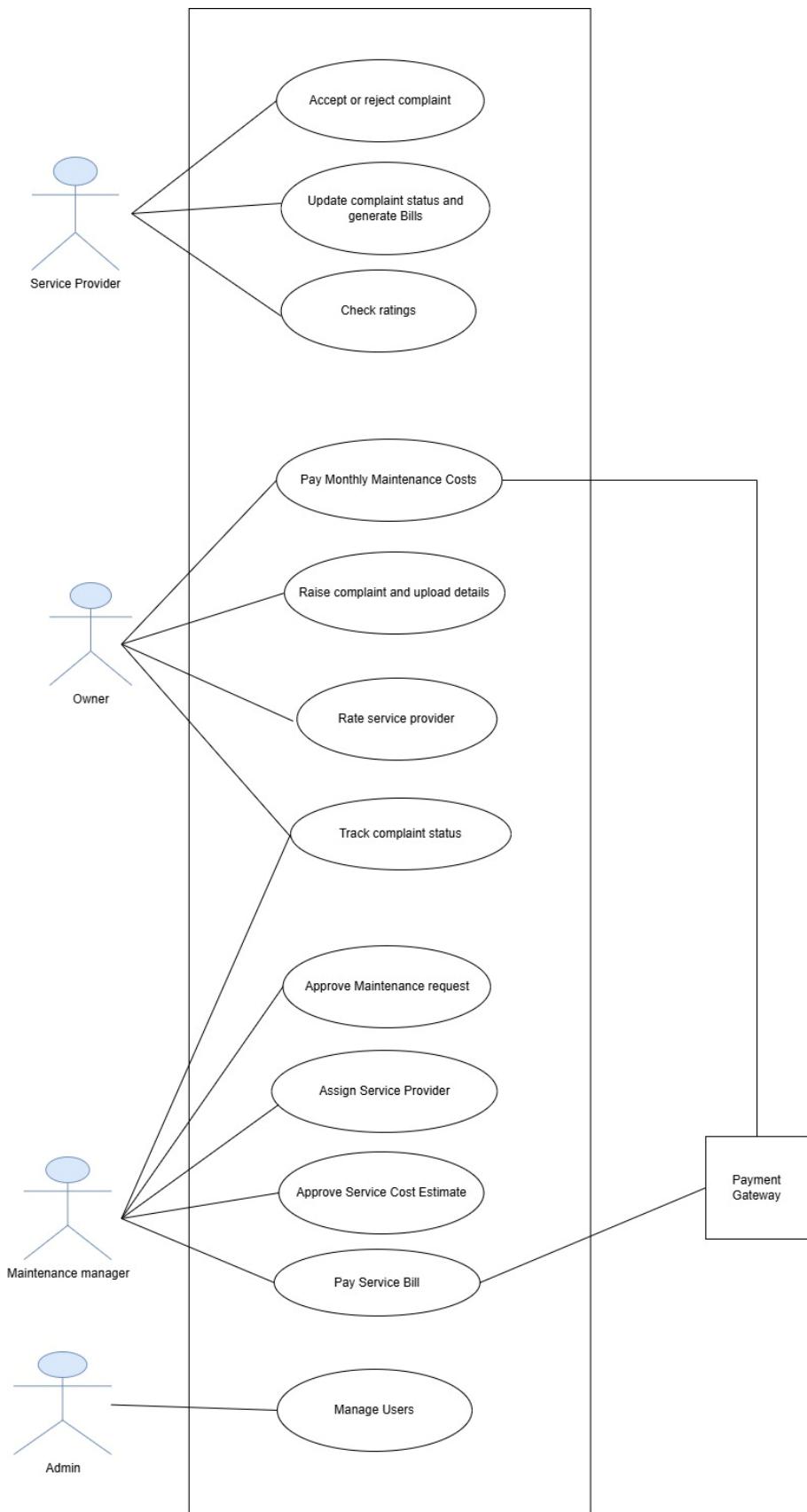
- The system shall allow the admin to manage roles.
- The system shall allow the owners to check history of maintenance cost payments per month.
- The system shall allow owners to raise general complaints by uploading a photo and a caption
- The system shall allow the maintenance manager to verify, fix a deadline and approve raised complaints
- The system shall display all complaints approved by the maintenance manager to registered service providers
- The system shall allow service providers to view and accept approved complaints.
- The system shall allow service providers to reject the complaints with a reason (no availability, etc)
- The system shall add all service providers who accept a complaint to a complaint queue.
- The system shall allow the maintenance manager to assign a complaint to a service provider from the complaint queue based on service provider ratings
- The system shall allow the service provider to generate an estimated service cost.
- The system shall allow maintenance manager to view and confirm the service provider based on estimated cost provided.
- The system shall allow the maintenance manager to reject service provider if estimated service cost is more and assign another service provider in the queue.
- The system shall allow the confirmed service provider to resolve the complaint and generate a bill
- The system shall allow all authorized users to track complaint status and to view generated bills to ensure transparency
- The system shall allow owners to give ratings to the service provider complaint resolved.
- The system shall allow maintenance manager to issue penalty if complaint is not resolved by service provider within deadline.

- The system shall allow the maintenance manager and admin to generate alerts and notifications for daily routine checks
- The system shall notify the service provider when the complaint resolution deadline is approaching or reached

## **Non-functional Requirements:**

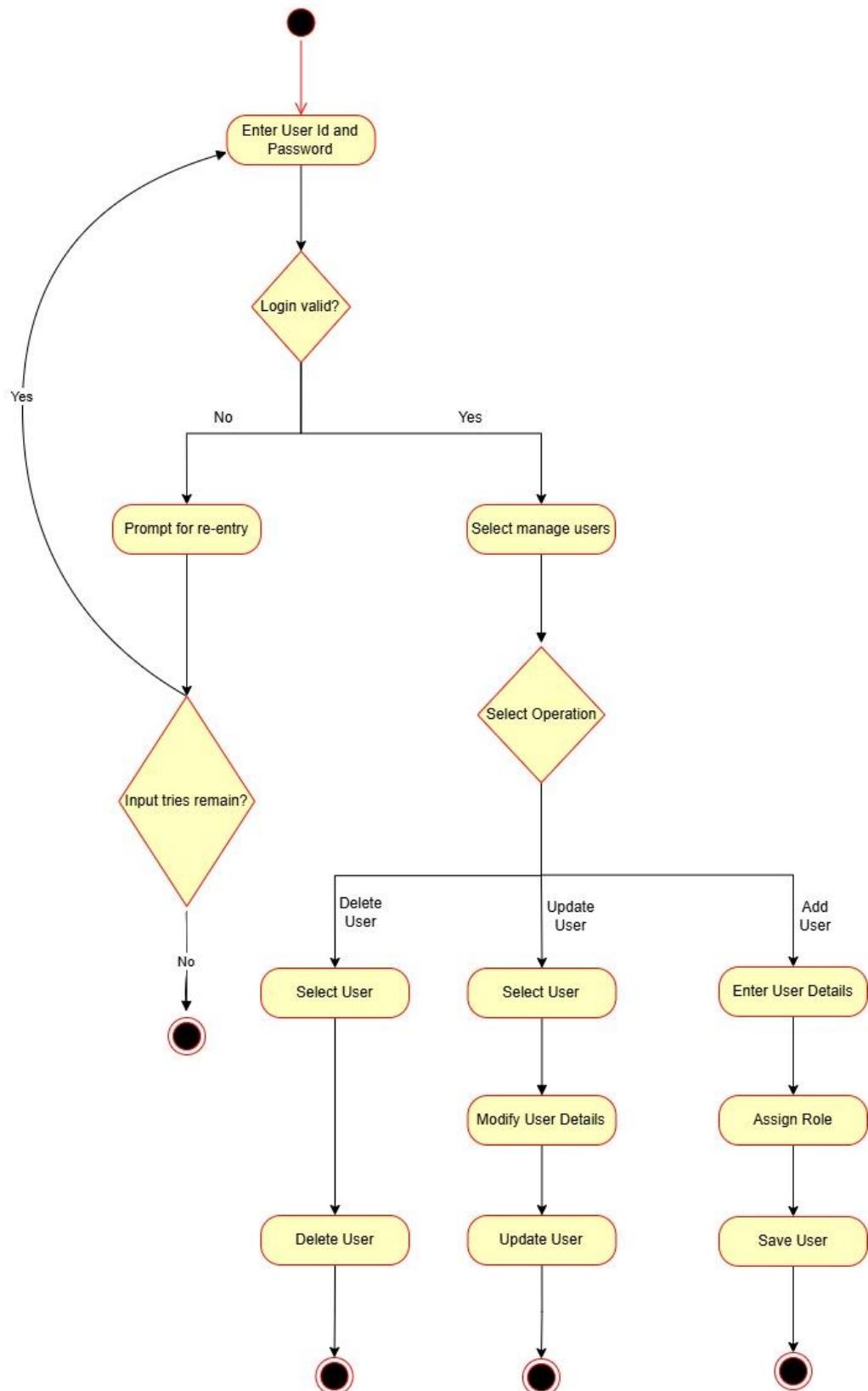
- The system shall respond to user actions within 3 seconds under normal operating conditions.
- The system shall be usable on both web and mobile browsers.
- The system shall ensure that all user passwords are stored in encrypted form.
- The system shall send notifications within 5 seconds of a triggering event.
- The system shall maintain a minimum availability of 99% uptime
- The system shall log all complaint status changes
- The system shall restrict system access based on user roles including Admin, Owner, Maintenance Manager, and Service Provider

# USE CASE DIAGRAM:

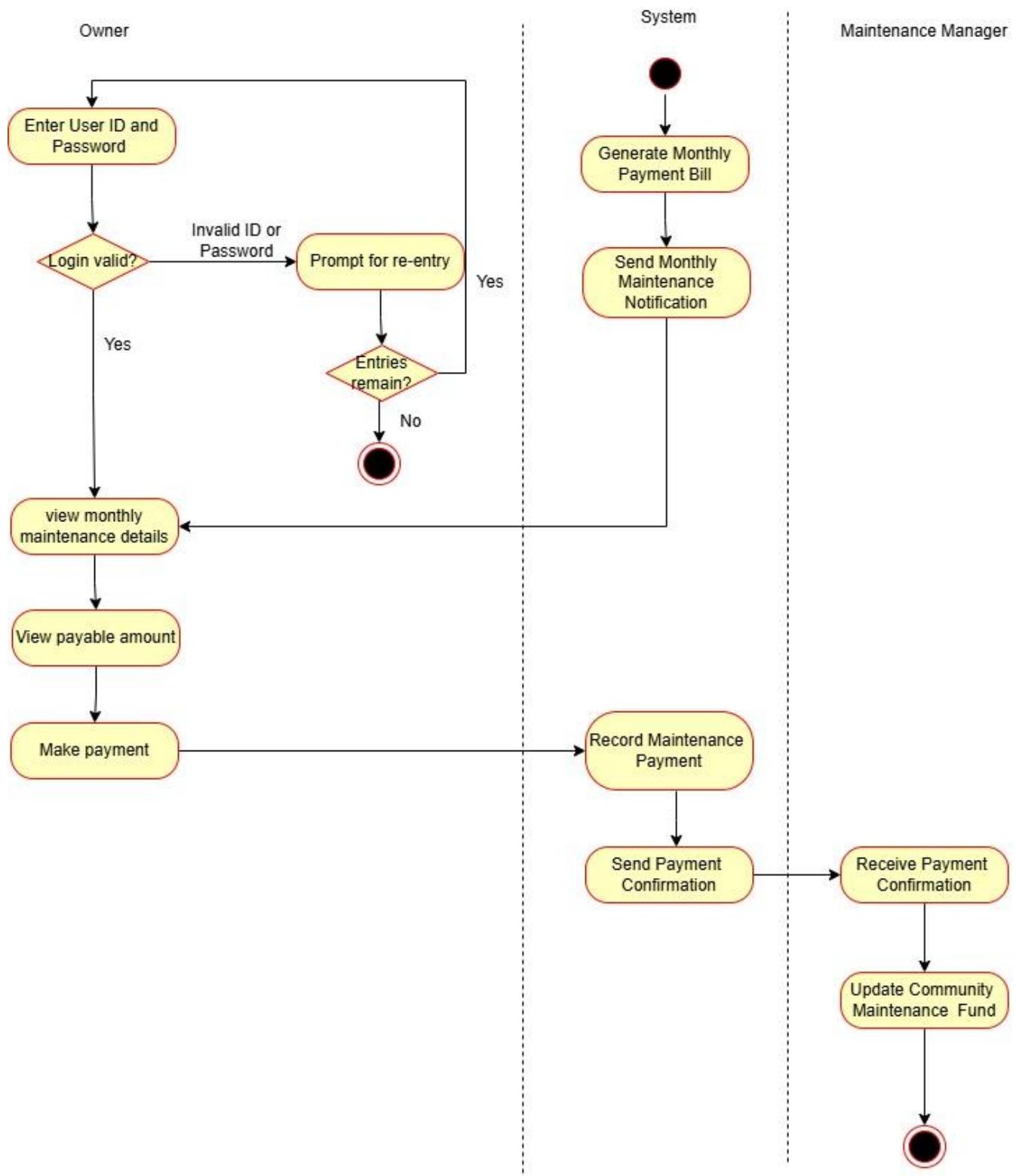


# ACTIVITY DIAGRAMS:

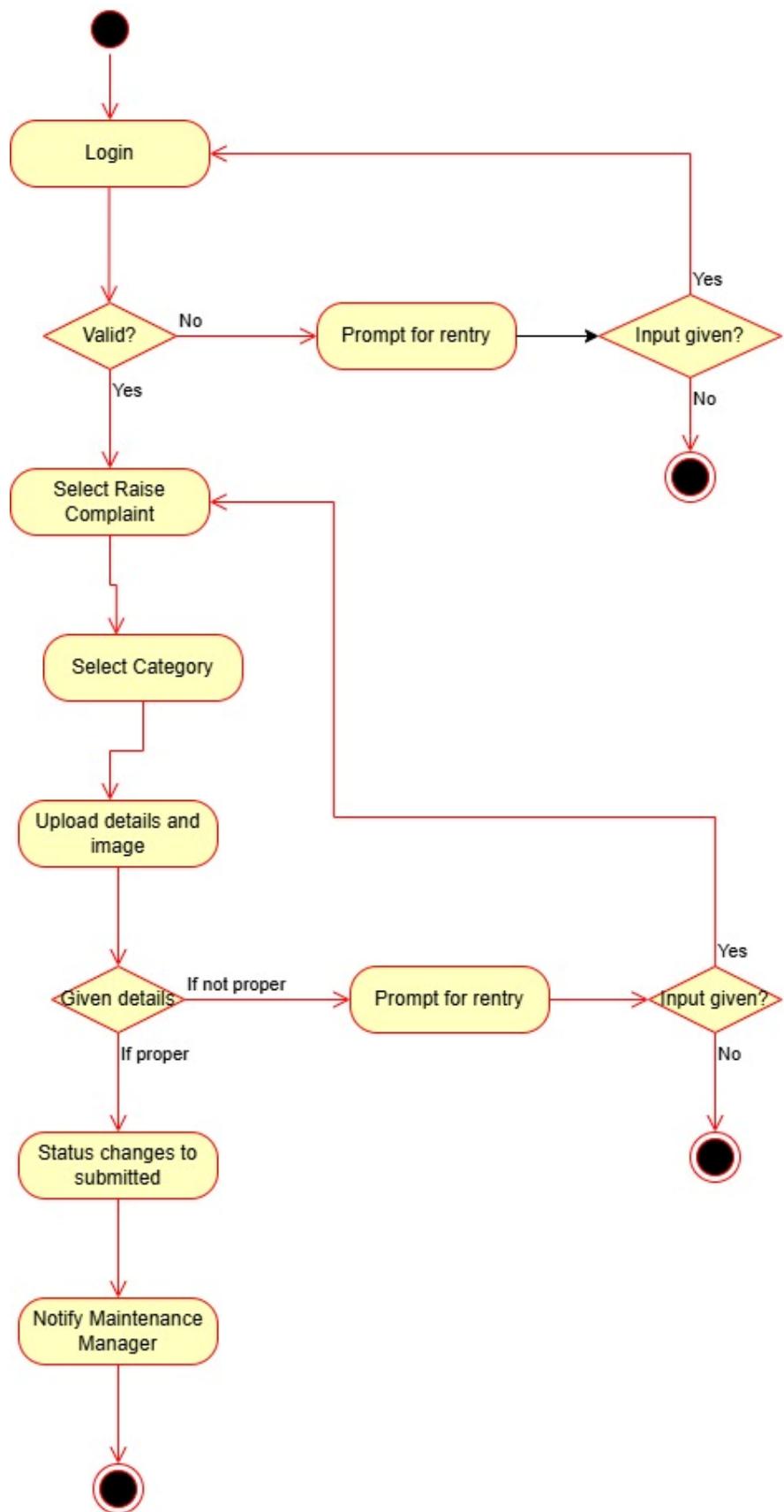
## 1. Manage Users:



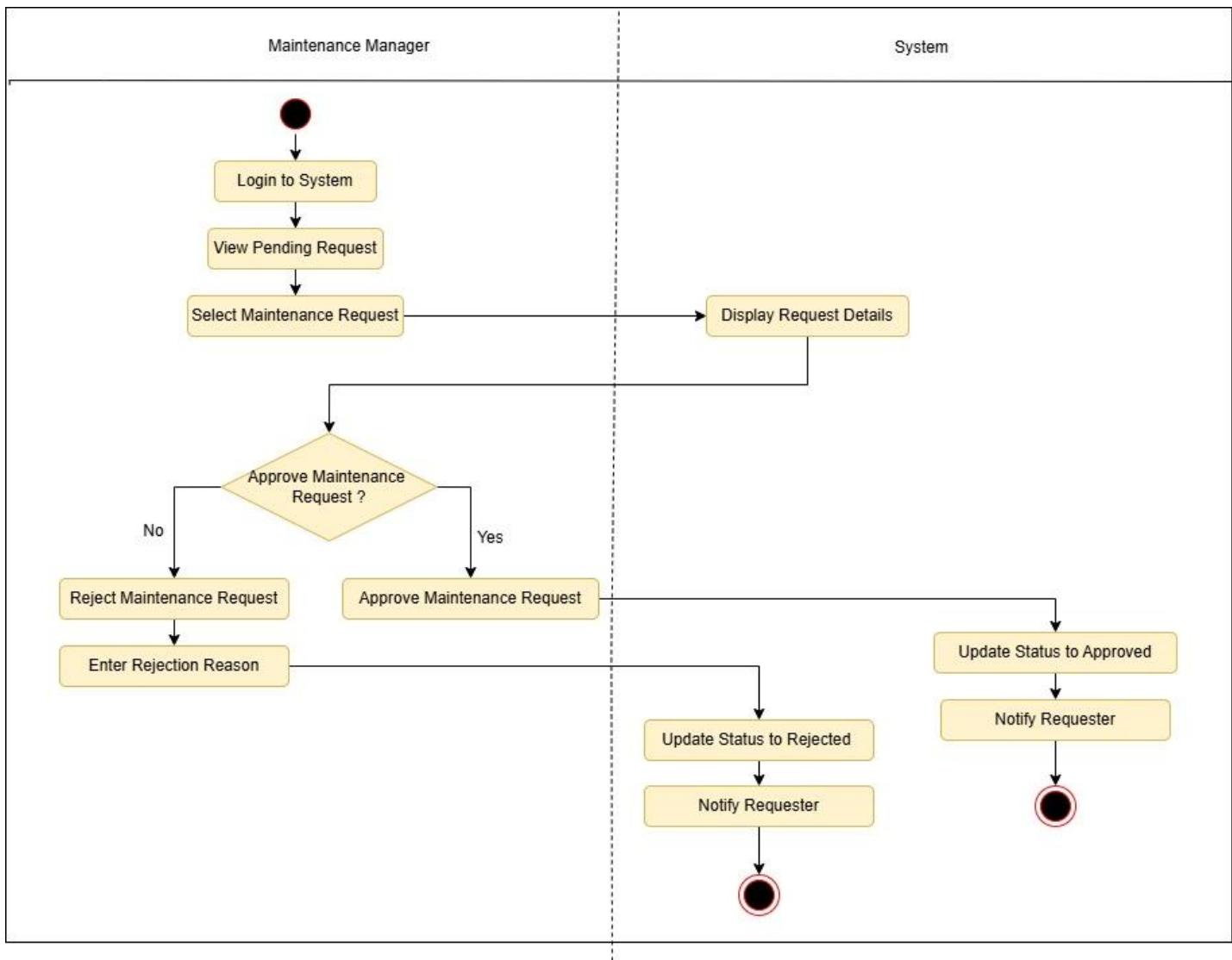
## **2. Pay Monthly Maintenance Cost:**



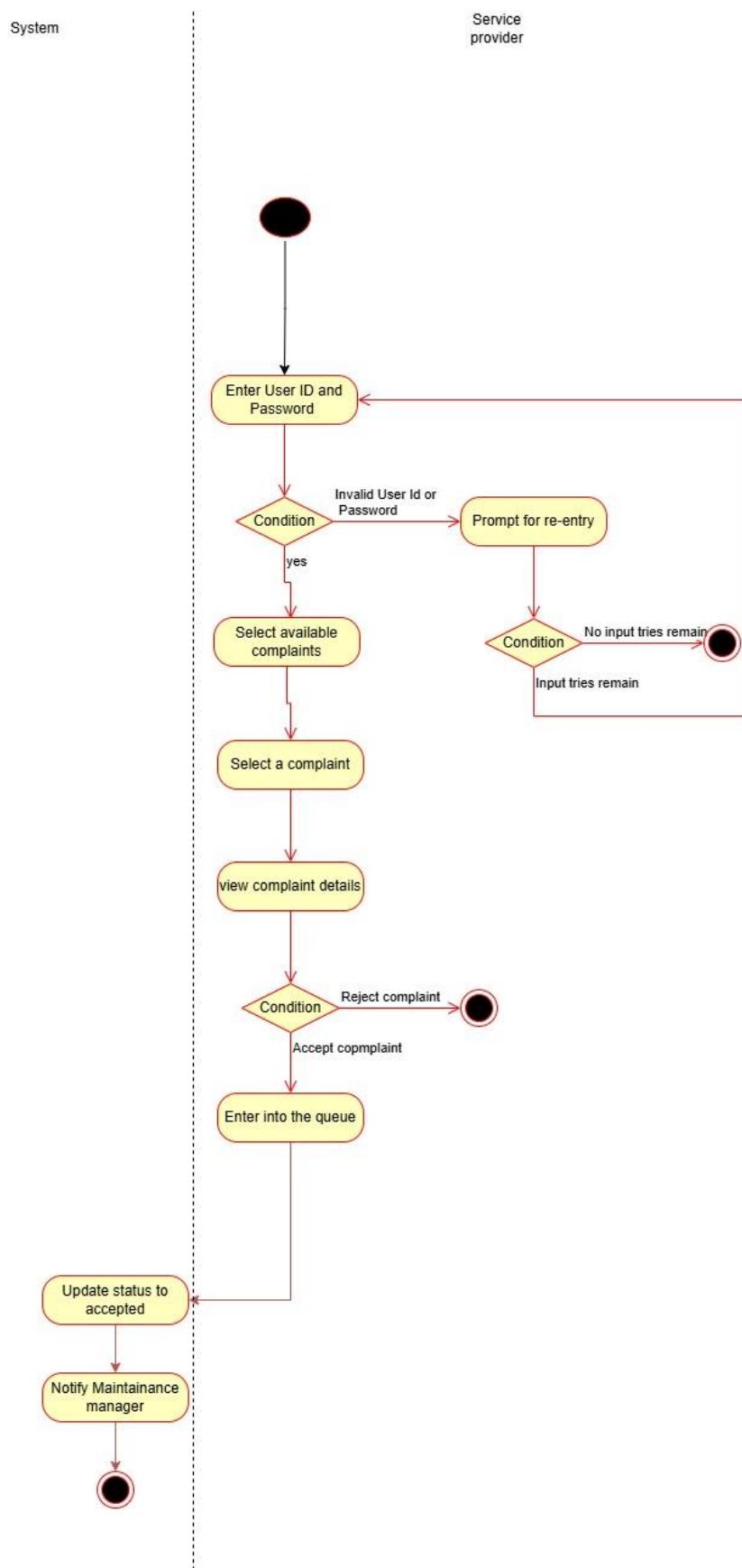
### 3. Raise Complaint and upload details:



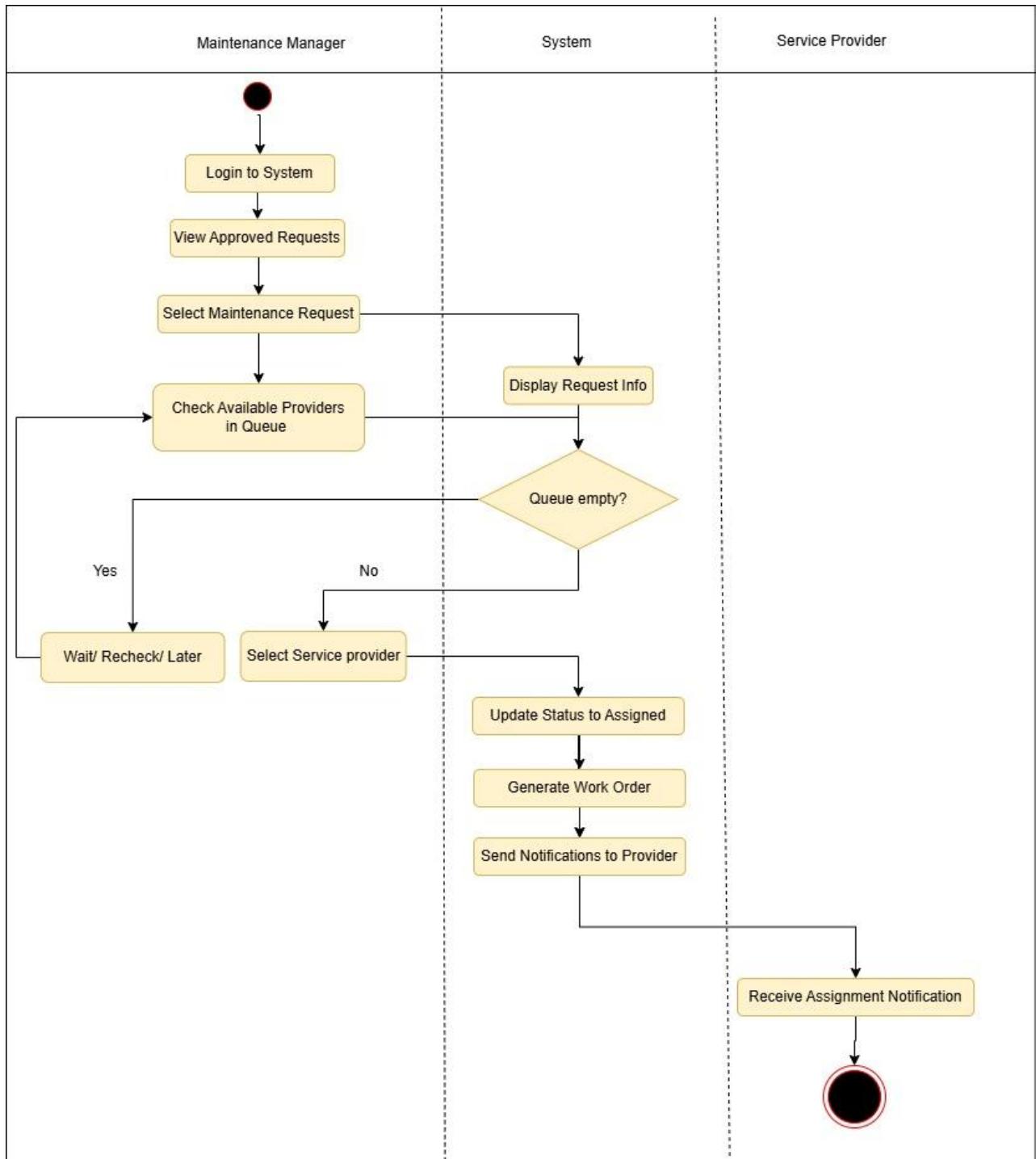
#### 4. Approve Maintenance Request:



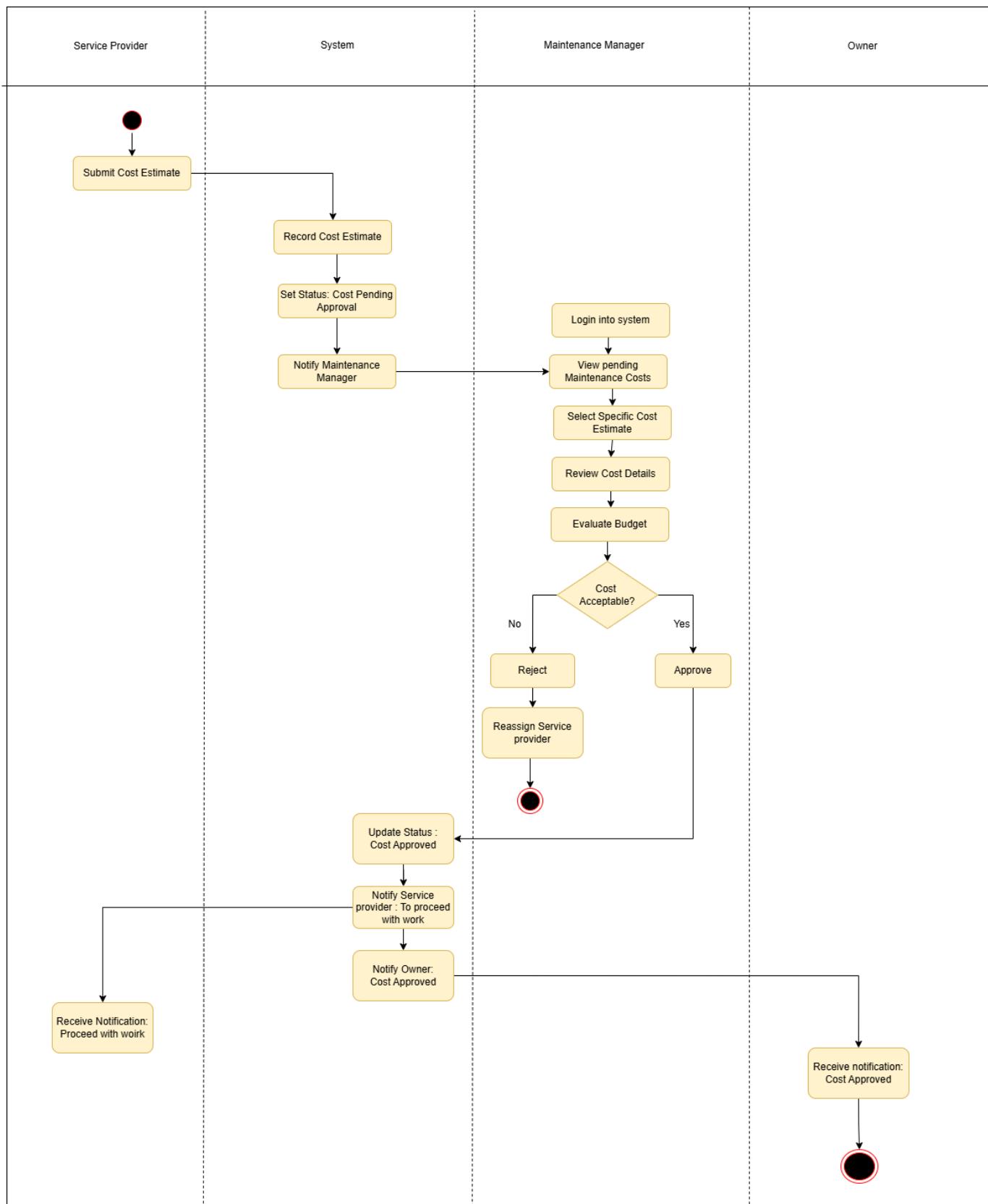
## 5. Approve or Reject Complaint:



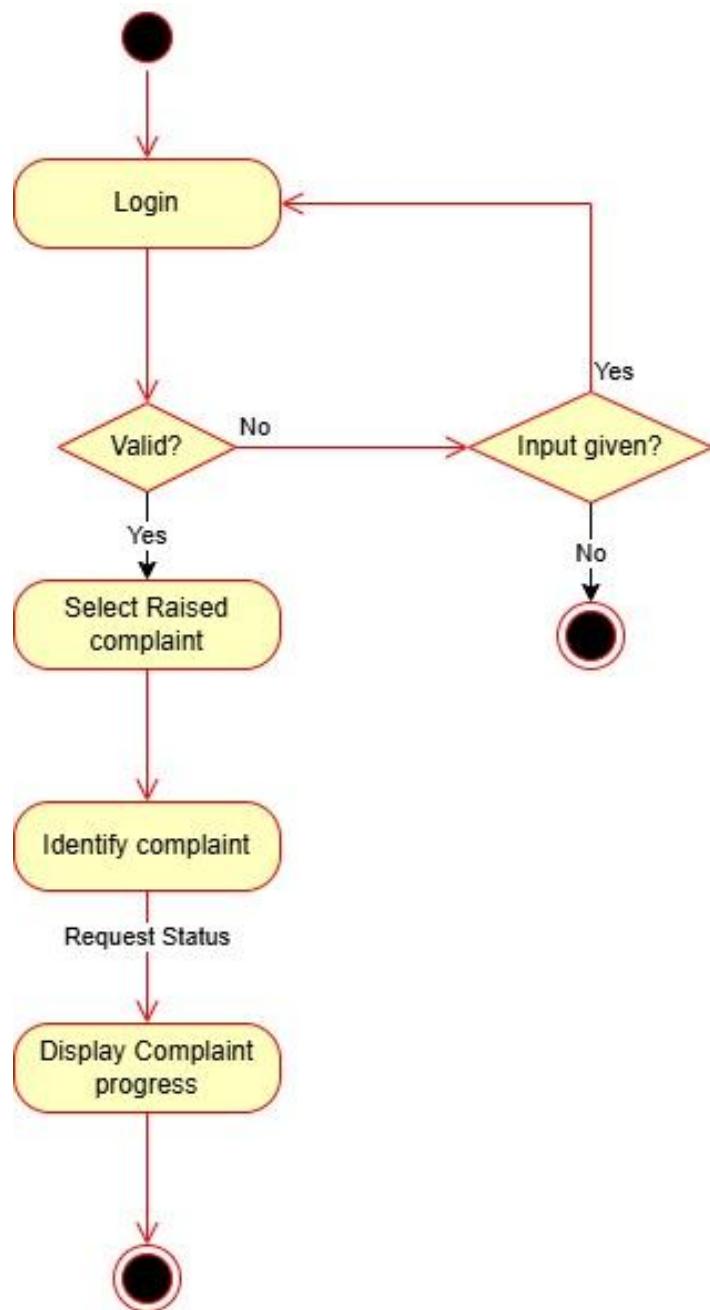
## 6. Assign Service Provider:



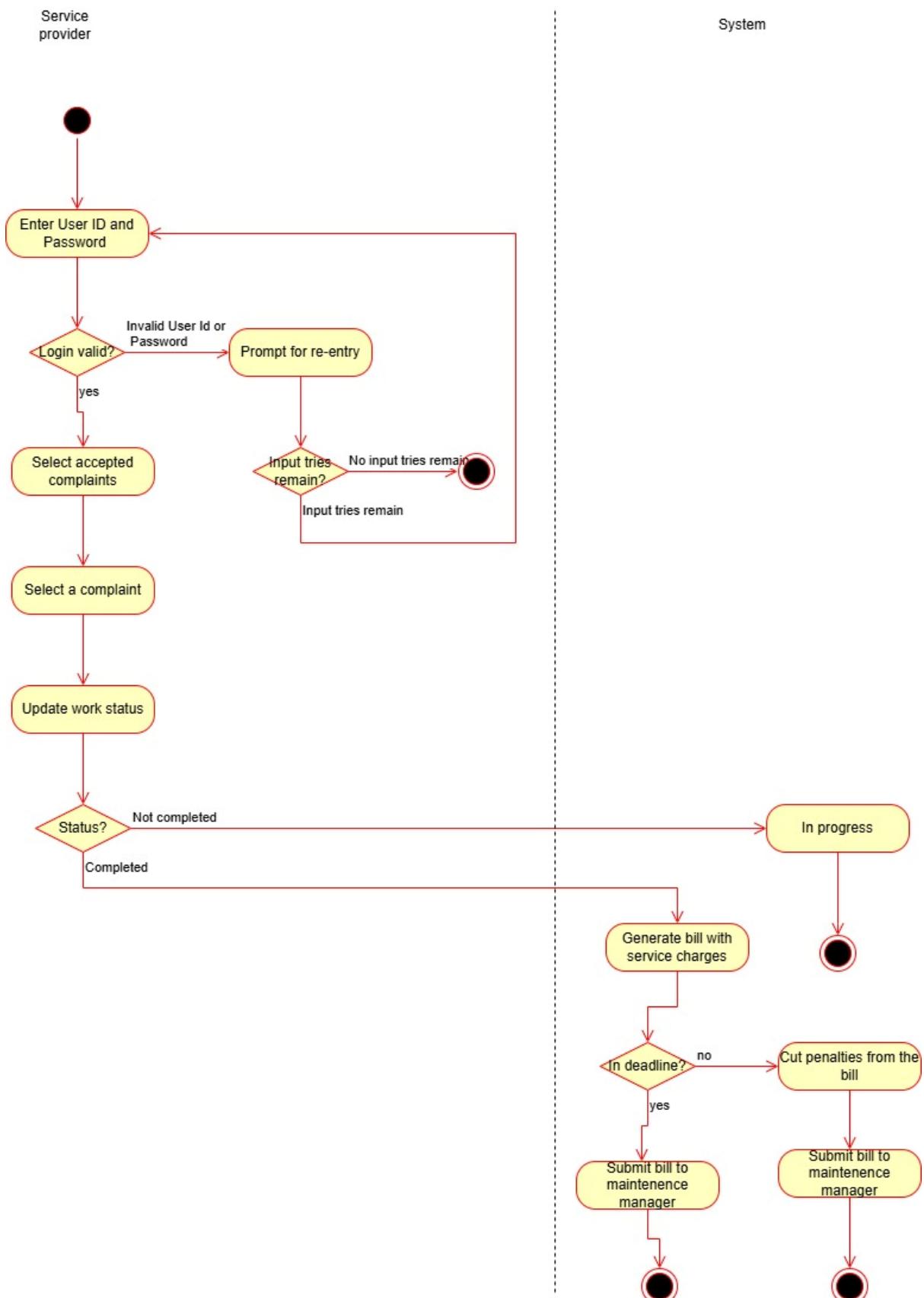
## 7. Approve Service Estimate:



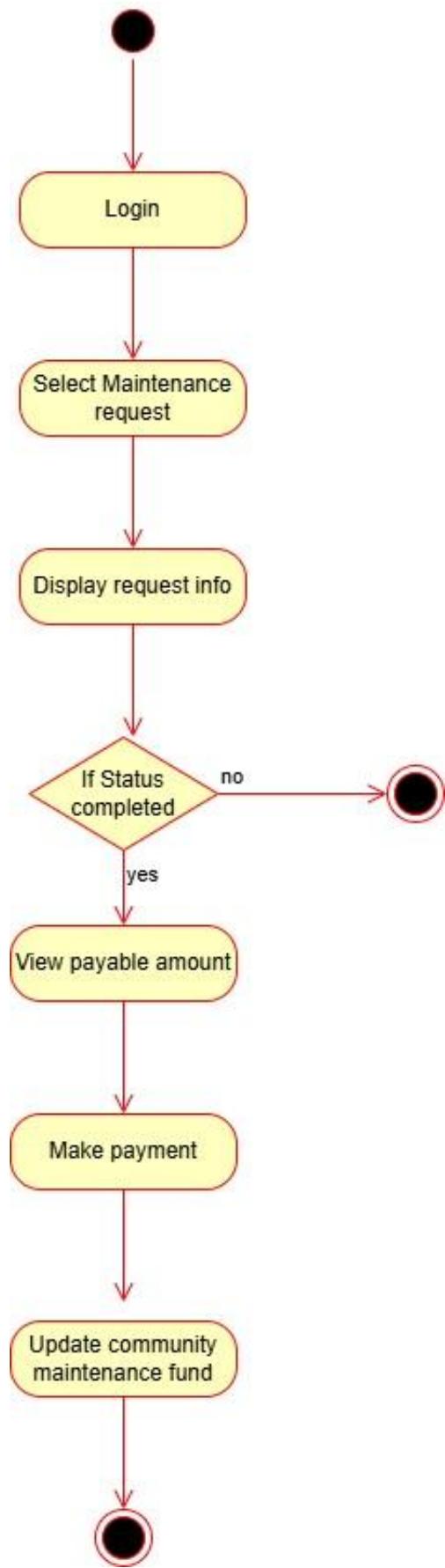
## 8. Track Complaint Status:



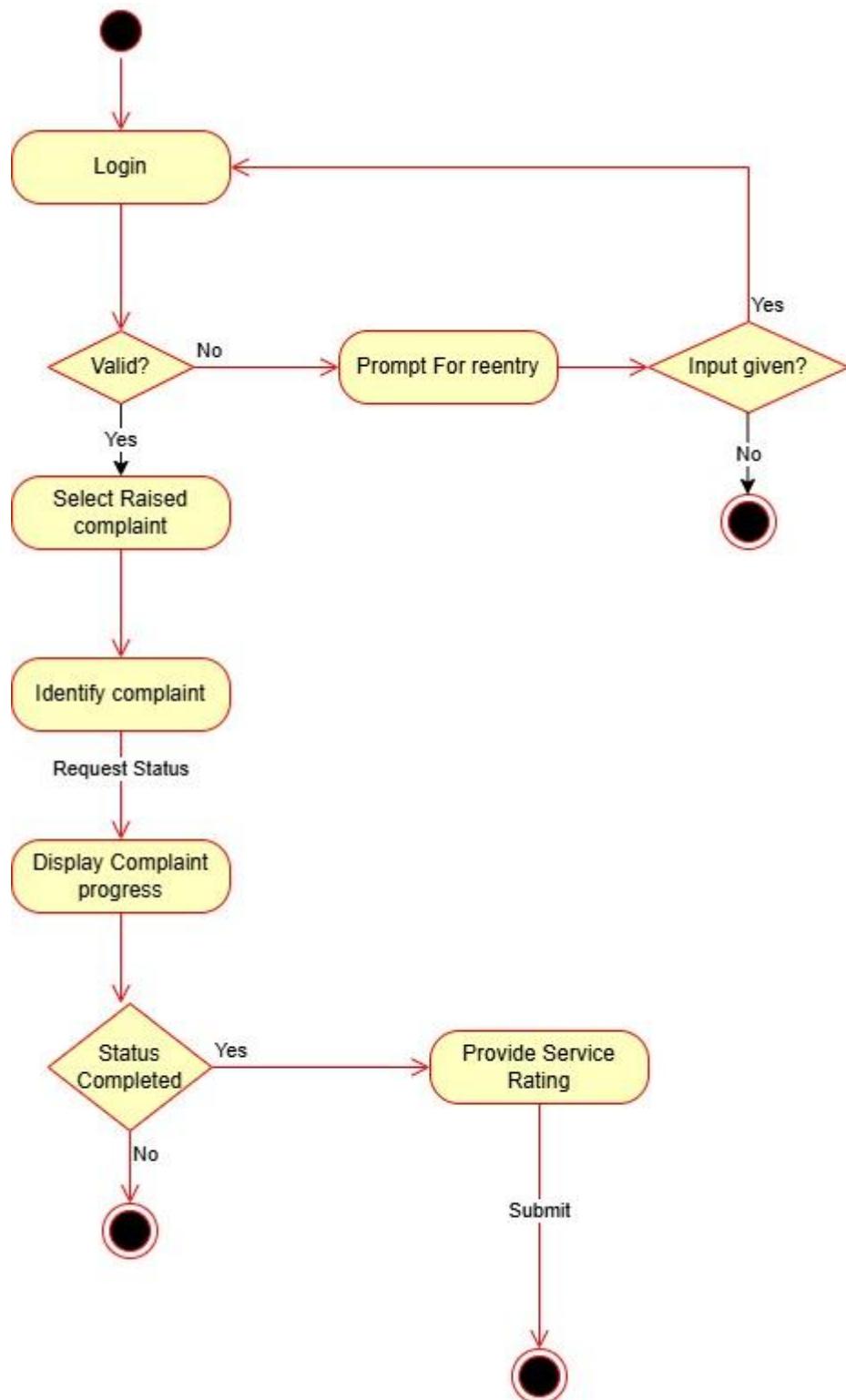
## 9. Update complaint status and generate bills:



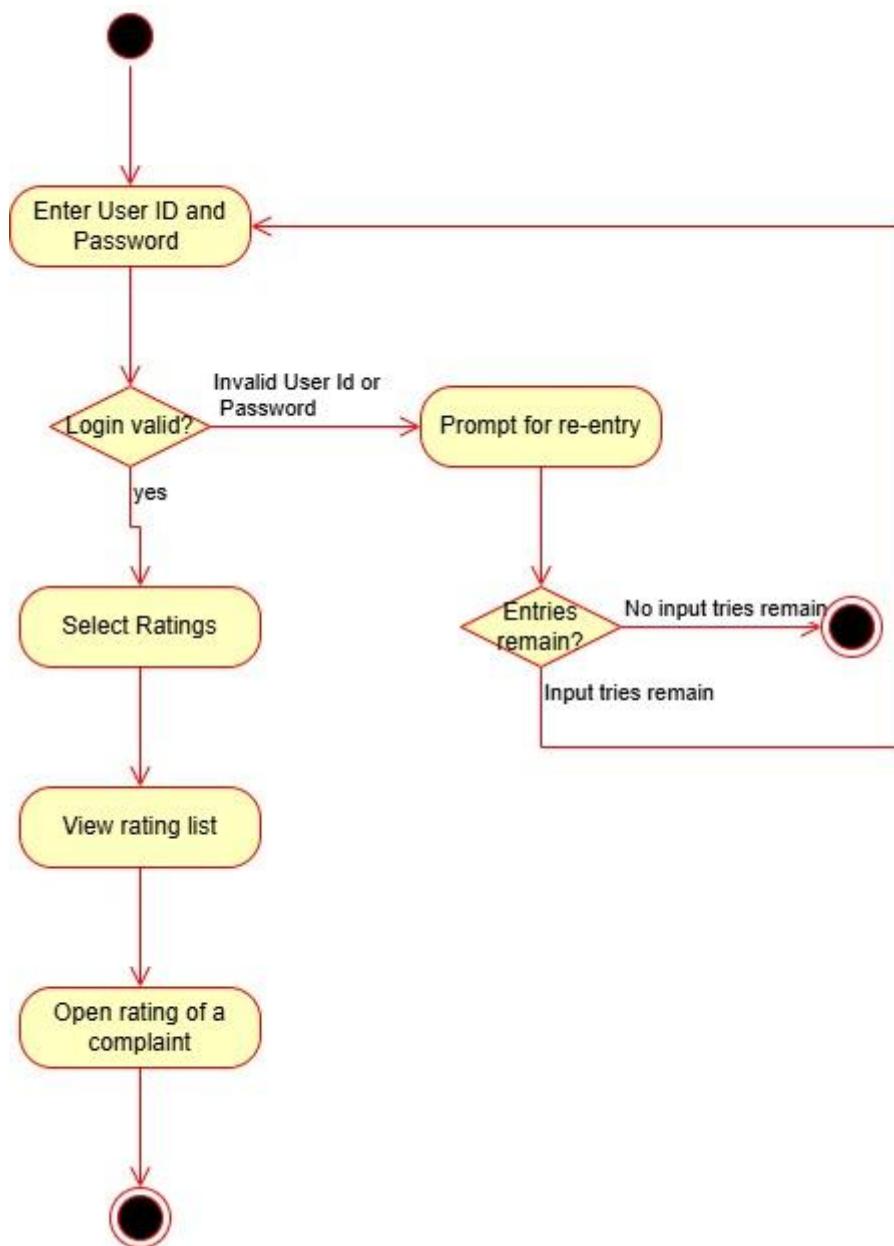
## 10. Pay Service Bill:



## 11. Rate Service Provider:



## 11. Check ratings:



# SEQUENTIAL DIAGRAM:

