

# **Team Name: 1\_FinStack**

## **Project Title**

**Expense, Reconciliation, and Compliance Management System**

## **Domain**

**FinTech**

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## **Functional Requirements**

### **Authentication**

- **FR-1:** The system shall authenticate users using organization ID, expense submitter ID, and password.
- **FR-2:** The system shall restrict access based on assigned roles.

### **Expense Management**

- **FR-3:** The system shall allow expense submitters to submit expenses with mandatory fields and receipts.
- **FR-4:** The system shall validate expense submissions for completeness and policy applicability before acceptance.

### **Approval Workflow**

- **FR-5:** The system shall route submitted expenses to the appropriate manager.
- **FR-6:** The system shall record approval or rejection decisions with timestamps.

### **Payment and Reconciliation**

- **FR-7:** The system shall allow finance officers to initiate payments for approved expenses.

- **FR-8:** The system shall receive payment status information from the bank or authorized payment channel.
- **FR-9:** The system shall perform reconciliation between approved expenses and received payment records.
- **FR-10:** The system shall flag reconciliation issues for finance review.

### **Compliance and Audit**

- **FR-11:** The system shall enforce expense policies automatically.
  - **FR-12:** The system shall maintain immutable audit logs of all expense-related actions.
  - **FR-13:** The system shall generate audit reports for compliance review.
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## **Non-Functional Requirements**

### **Performance**

- The system shall support concurrent access by multiple users.
- The system shall provide expense submission responses within defined acceptable time limits.

### **Security**

- The system shall require authentication for all users before granting access.
- The system shall enforce role-based access control.
- The system shall prevent modification of audit logs.

### **Reliability and Availability**

- The system shall prevent duplicate payments.
- The system shall handle payment failures without causing data inconsistency.

### **Usability**

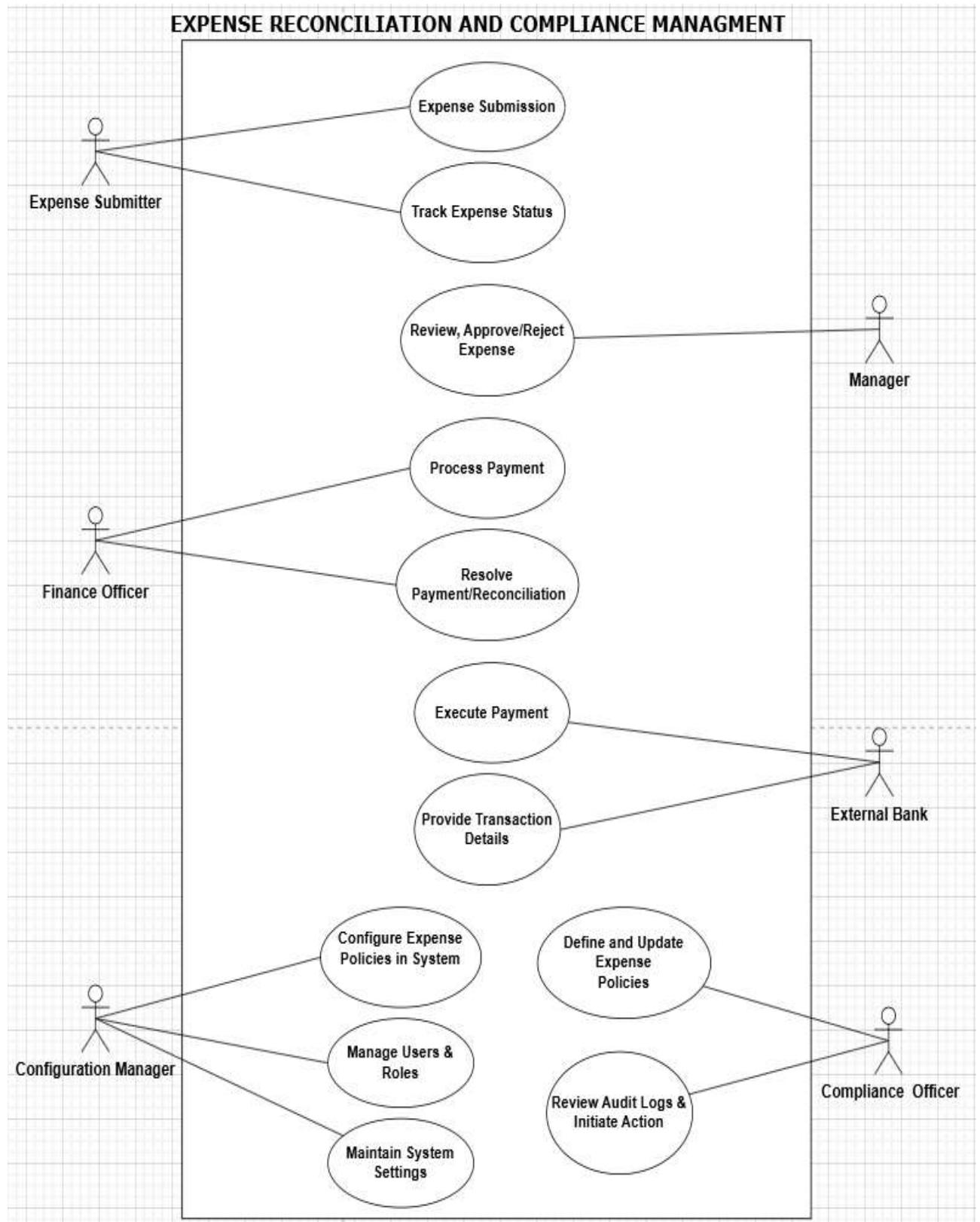
- The system shall provide clear feedback for user actions.
  - The system shall present error messages that are understandable to non-technical users.
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## **System Models**

The following models are used to describe system behavior:

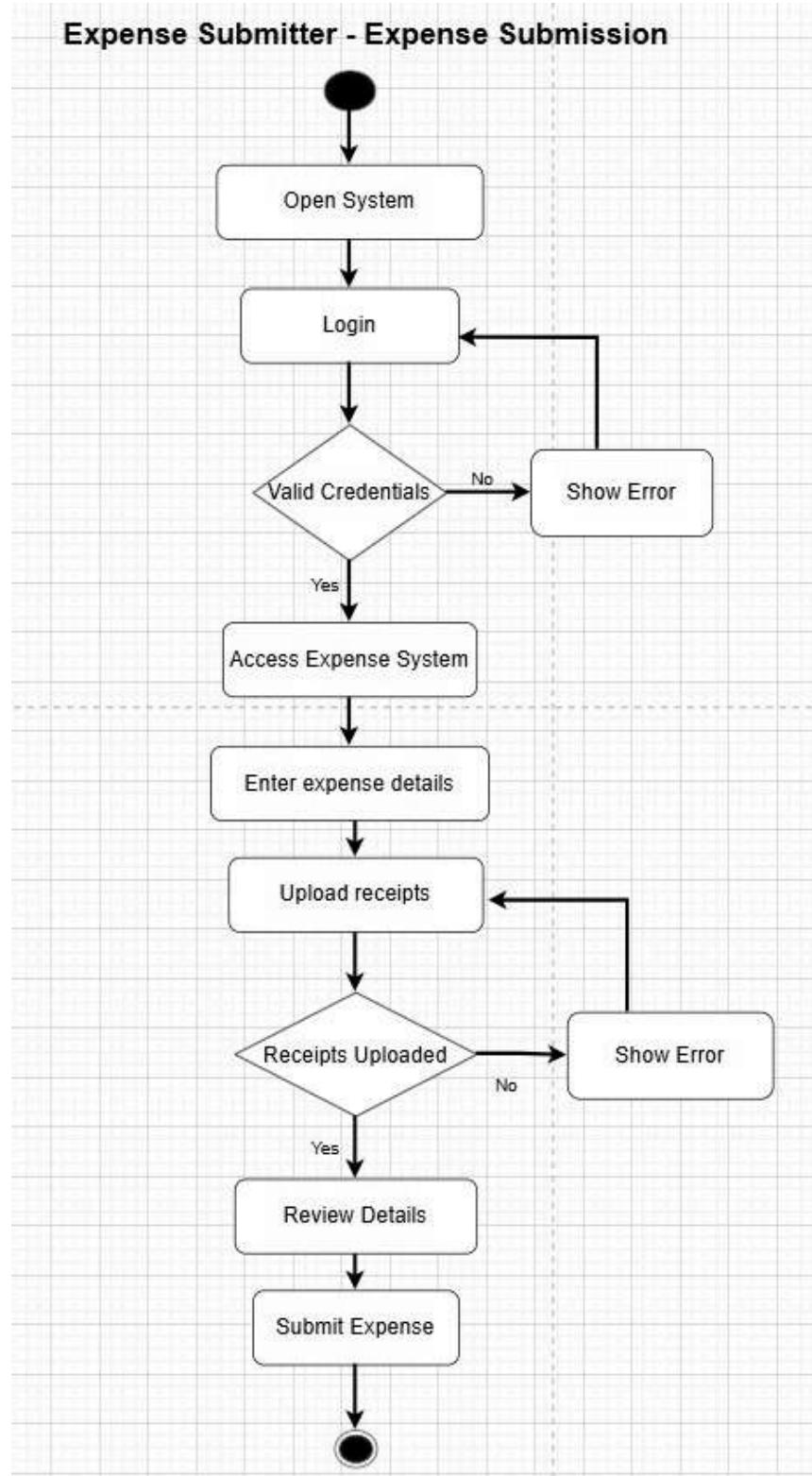
- Use Case Diagram
- Activity Diagrams
- Sequence Diagram

# Use Case Diagram

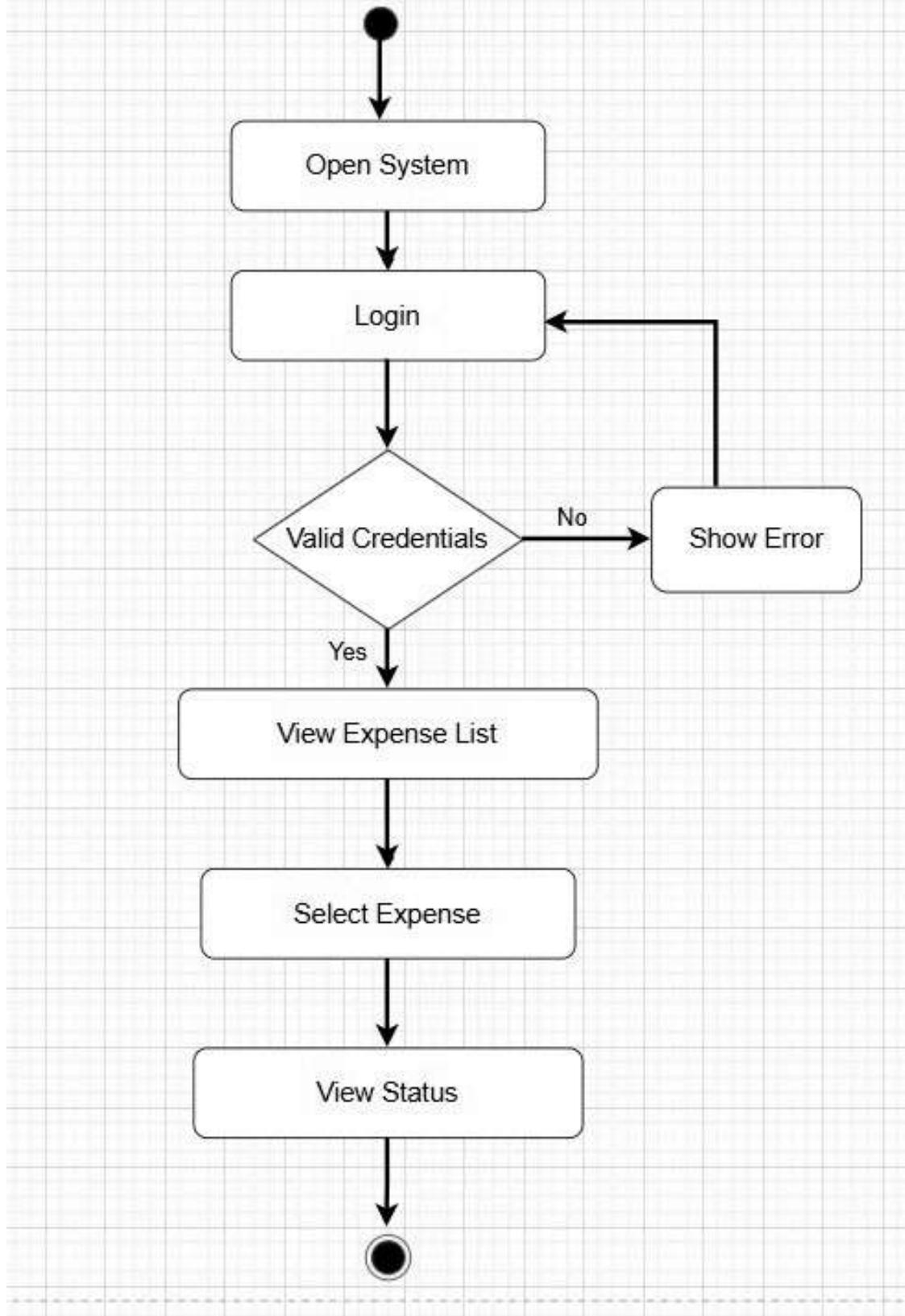


# Activity Diagrams

## 1. Expense Submitter:

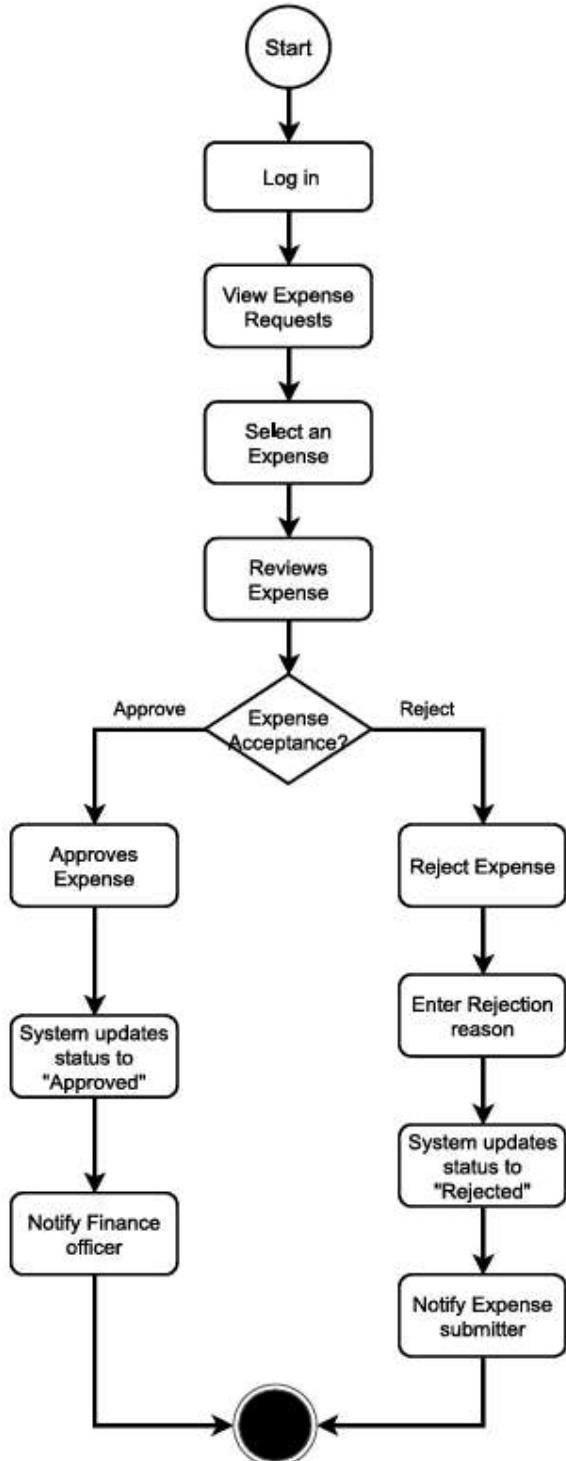


## Expense Submitter - Track Expense Status

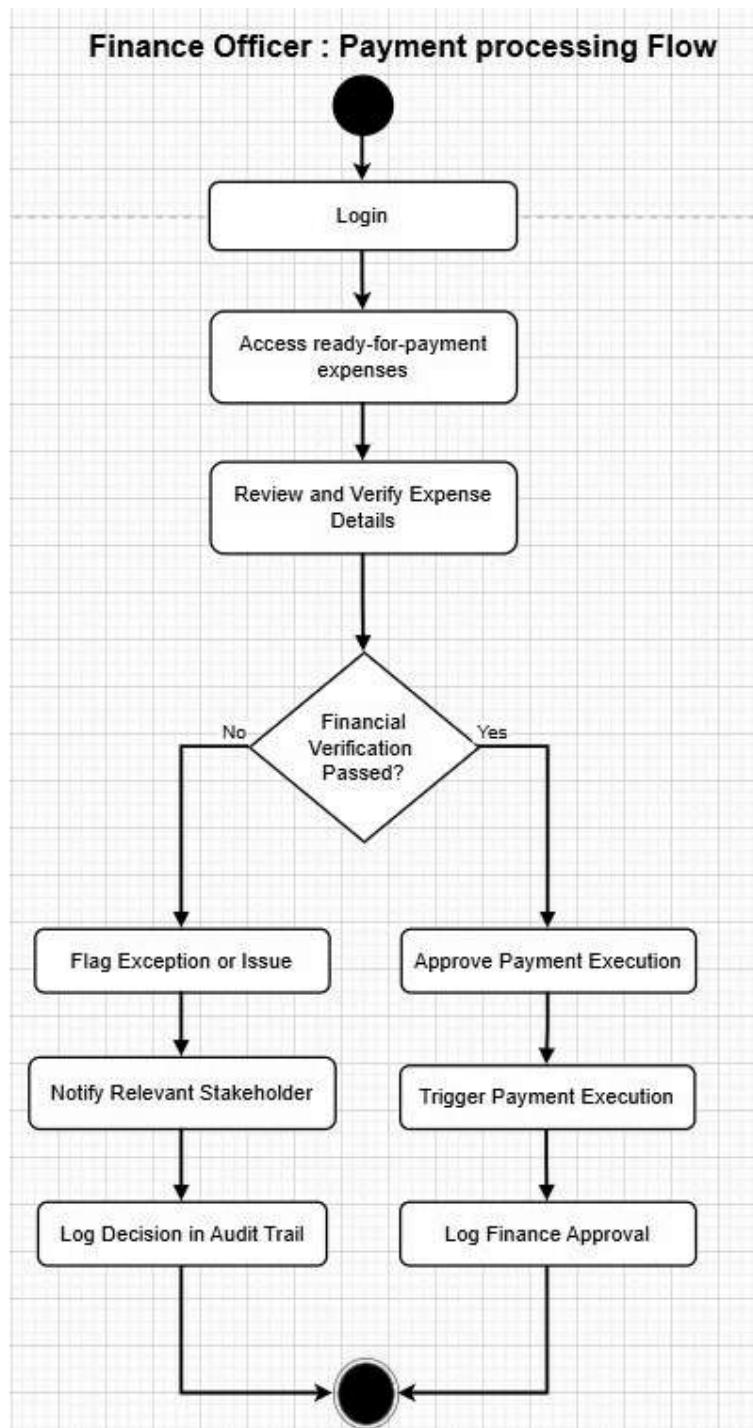


## 2.Manager:

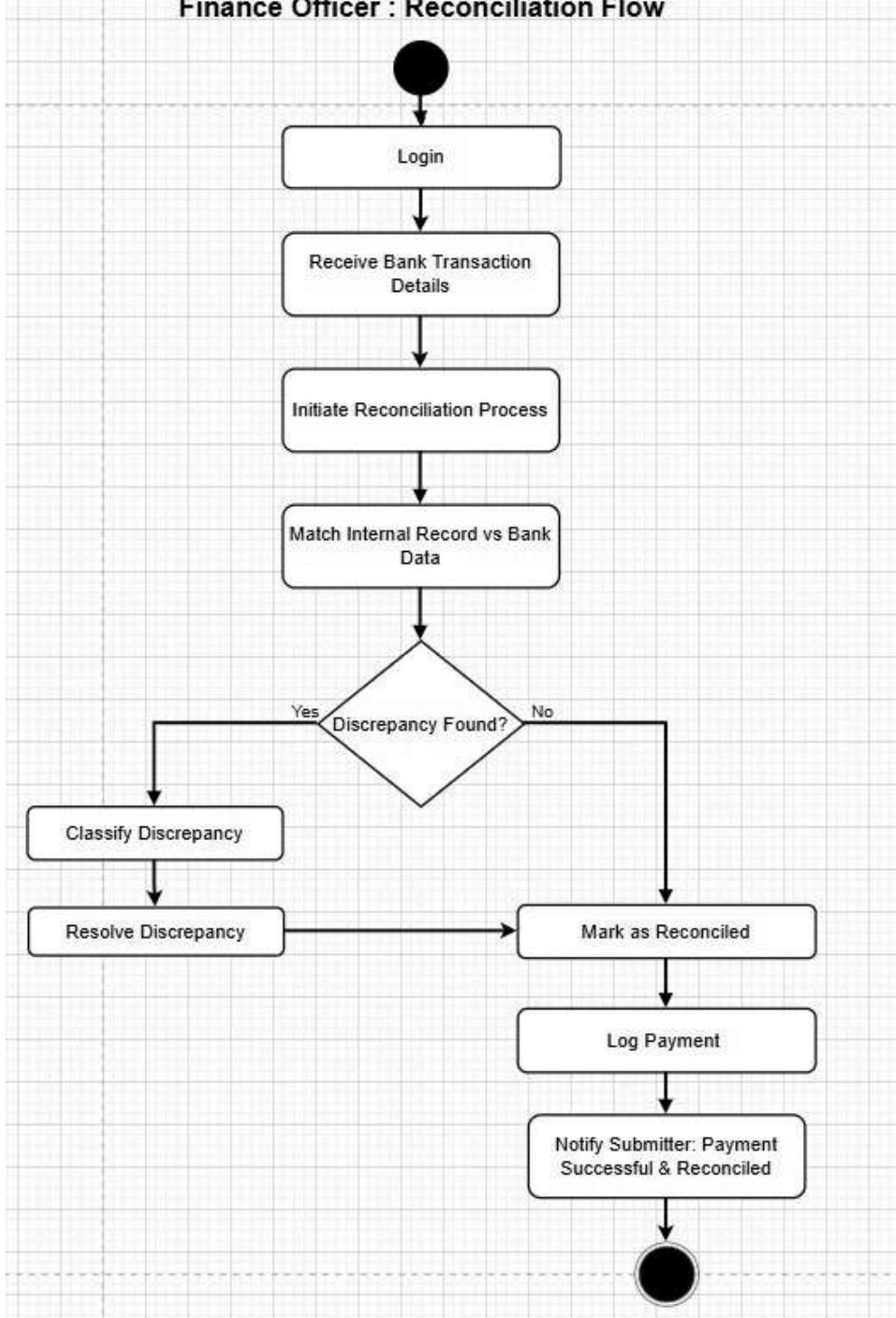
### Manager Review and Approval Activity



### 3.Finance Officer:

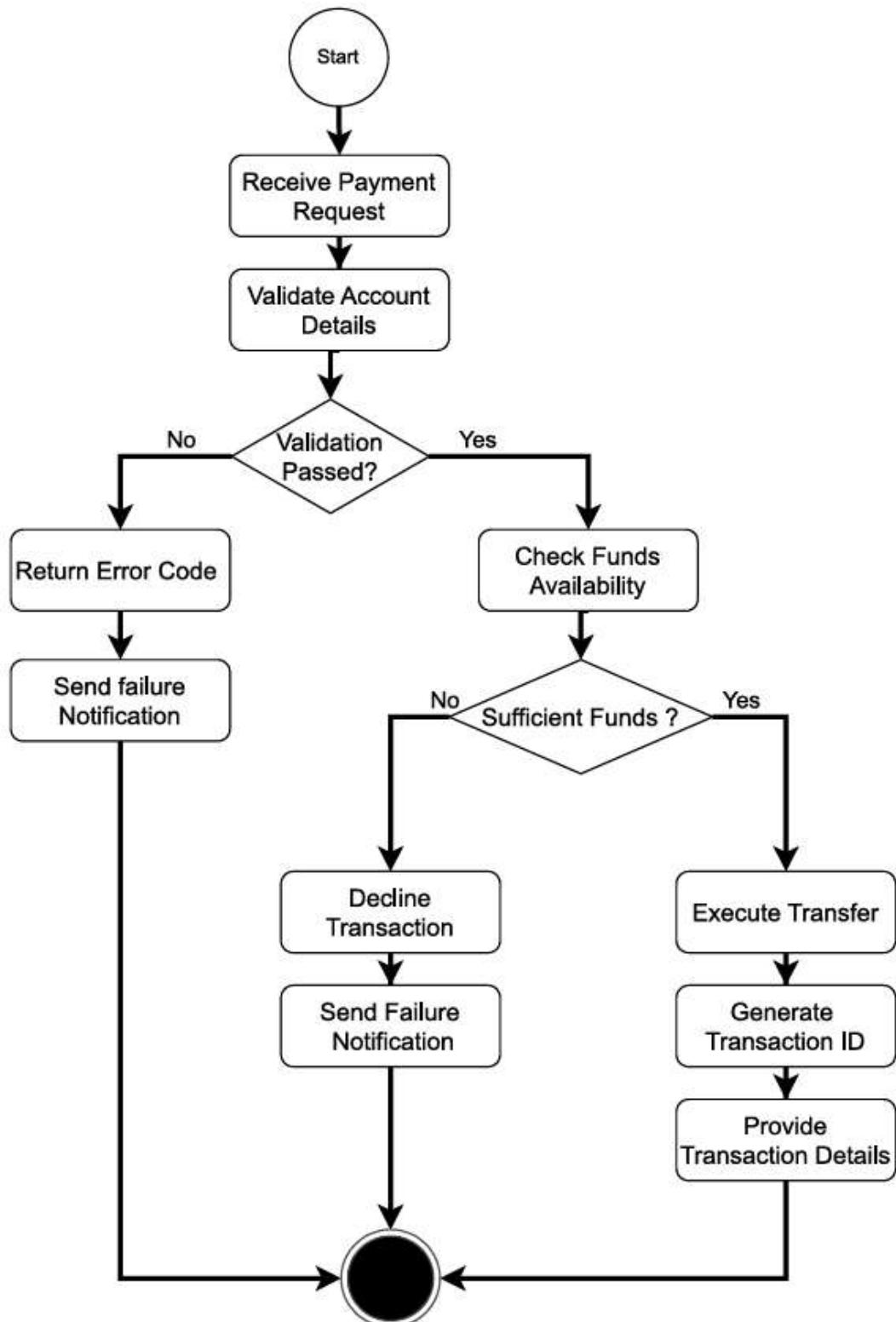


## Finance Officer : Reconciliation Flow



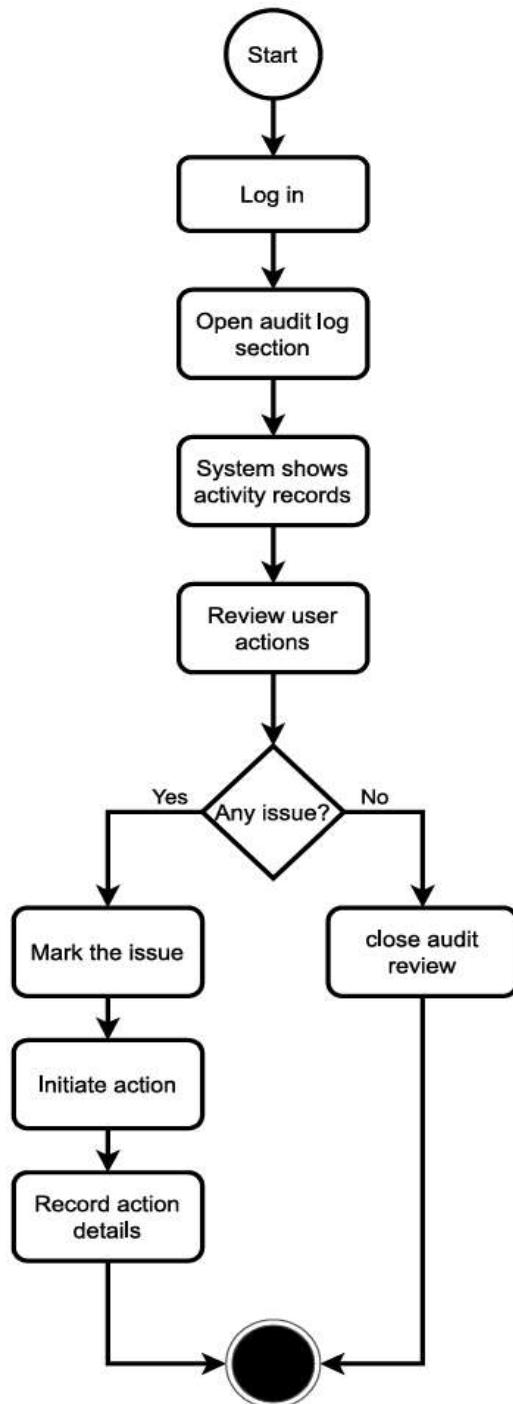
## 4.External Bank

### External Bank (Execute & Report)

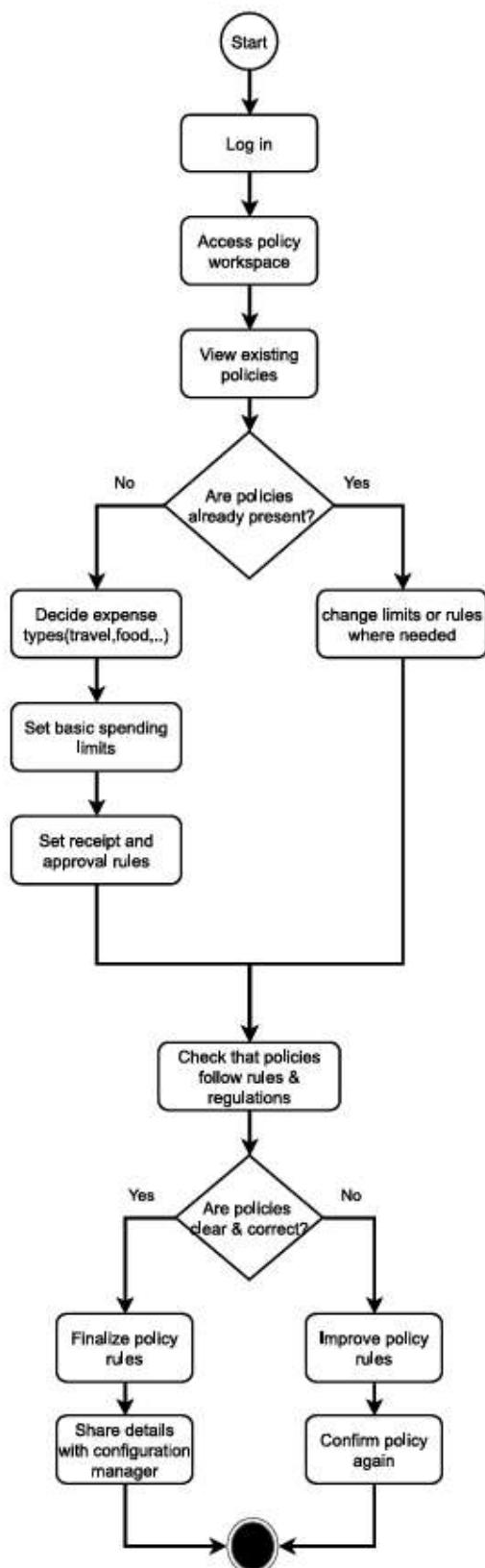


## 5.Compliance Officer

### **Review Audit Logs and Initiate Action - Compliance Officer**

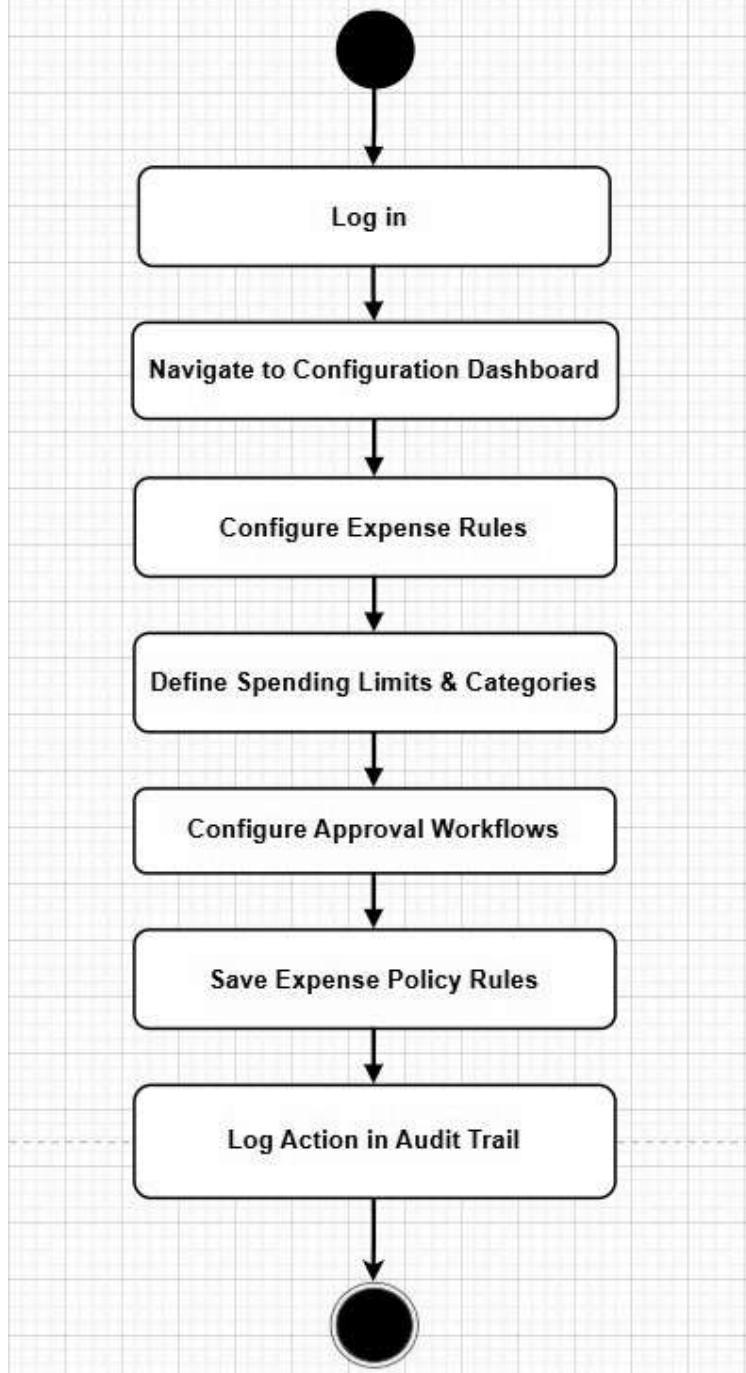


## Define and Update Expense Policies - Compliance Officer

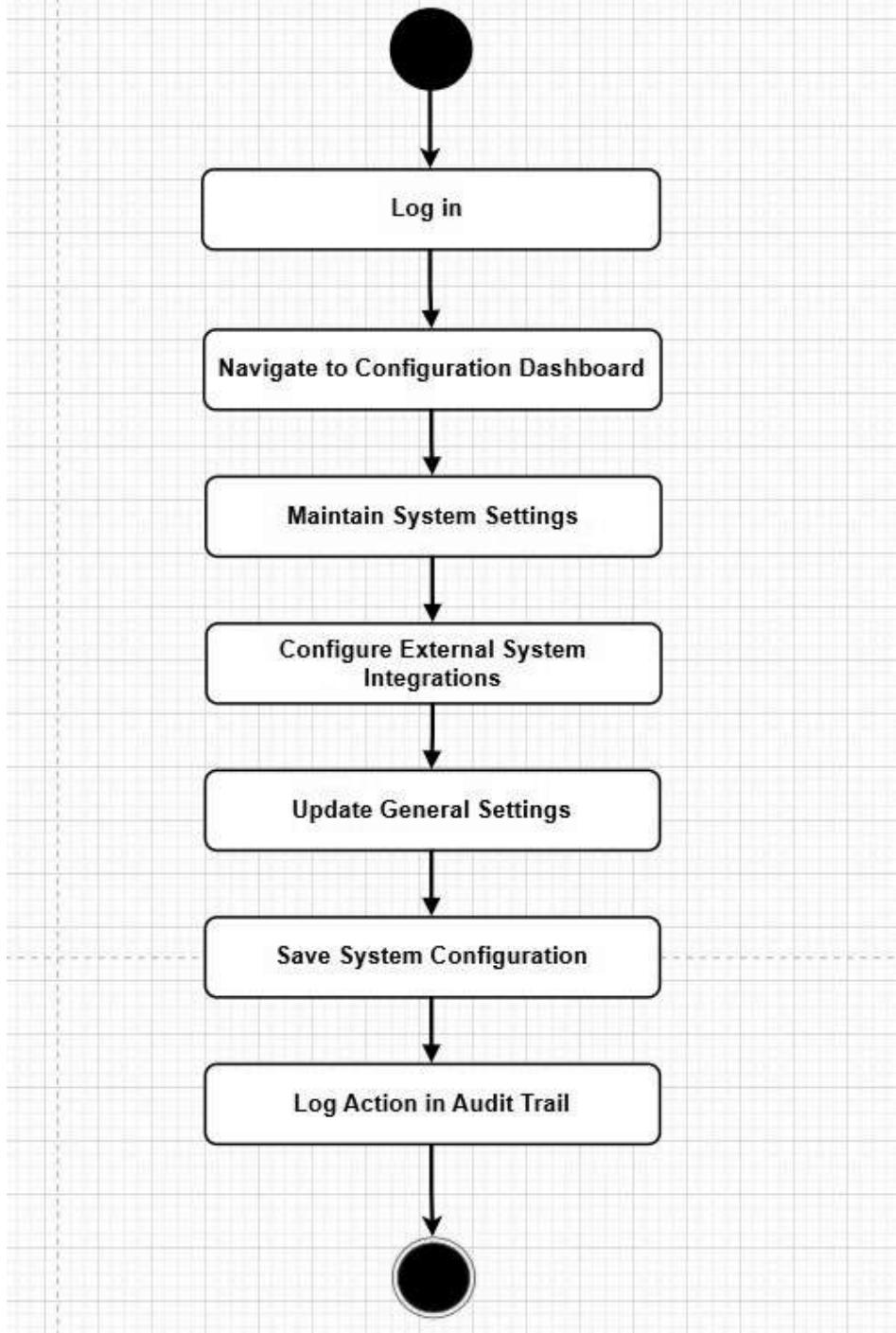


## 6.Configuration Manager:

### Configuration Manager: Configure Rules



## Configuration Manager: Maintain System Settings



## Configuration Manager: Manage Users & Roles

