

SYSTEM REQUIREMENT SPECIFICATION

Functional Requirements

Project Management

The system shall enable project owners to create and manage projects.

Recruitment & Assignment

The system shall allow collaborators to apply for projects and owners to approve applicants and assign tasks.

Task Lifecycle Management

The system shall manage task states: In Progress → Submitted → Approved / Revise.

XP Automation

The system shall award XP only after approval by the project owner.

XP Calculation Rules

XP shall be calculated using:

- Deadline adherence
$$\text{Final XP} = \text{Base XP} + \text{Project XP} + \text{Bonus}(\text{approved on or before deadline})$$

Mentorship Support

The system shall allow mentors to provide guidance and recommendations without evaluation authority.

Audit Logging

All actions shall be logged immutably.

Administration & Enforcement

The system shall support warnings and suspensions

Non-Functional Requirements

Transparency

All workflow transitions must be traceable through audit logs.

Deterministic

XP calculation shall be rule-based and deterministic.

Security

Role-based access control must be enforced.

Scalability

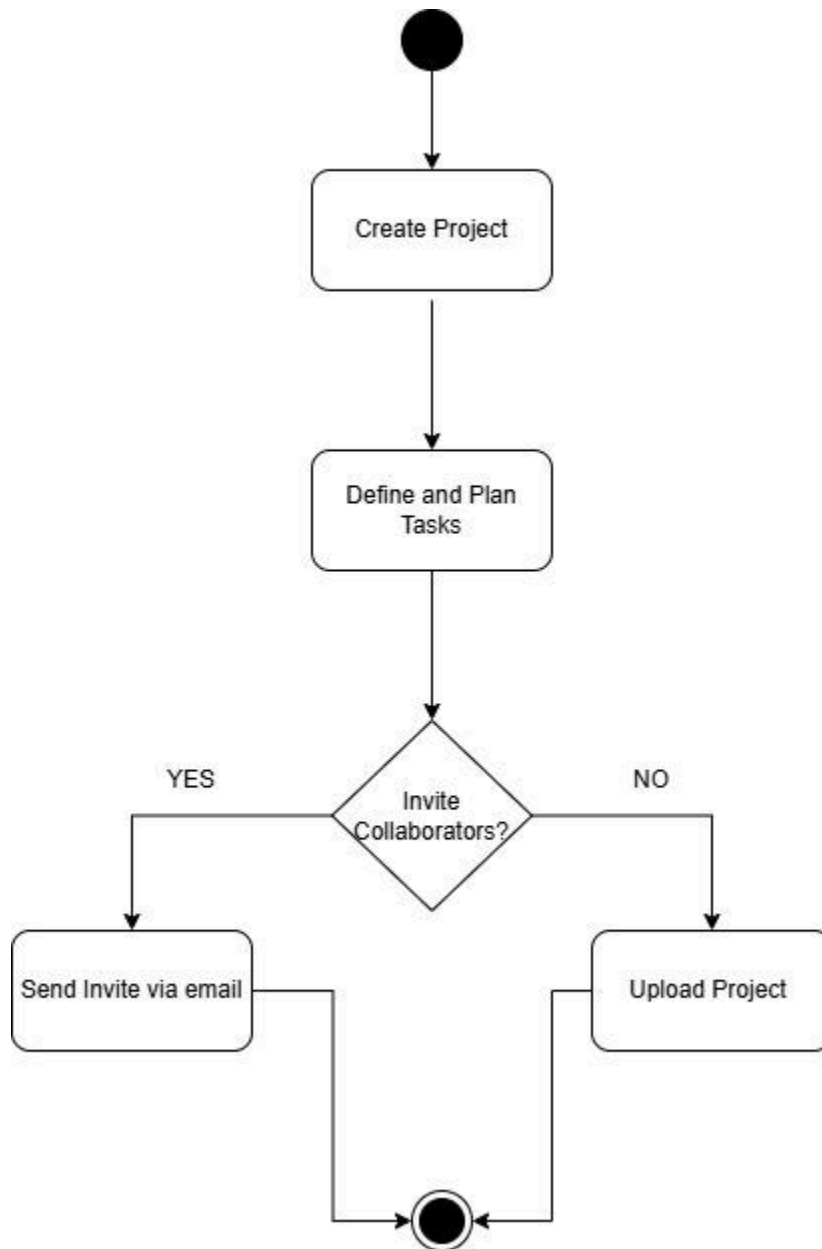
System shall support concurrent users and multiple projects.

USE CASE DIAGRAM

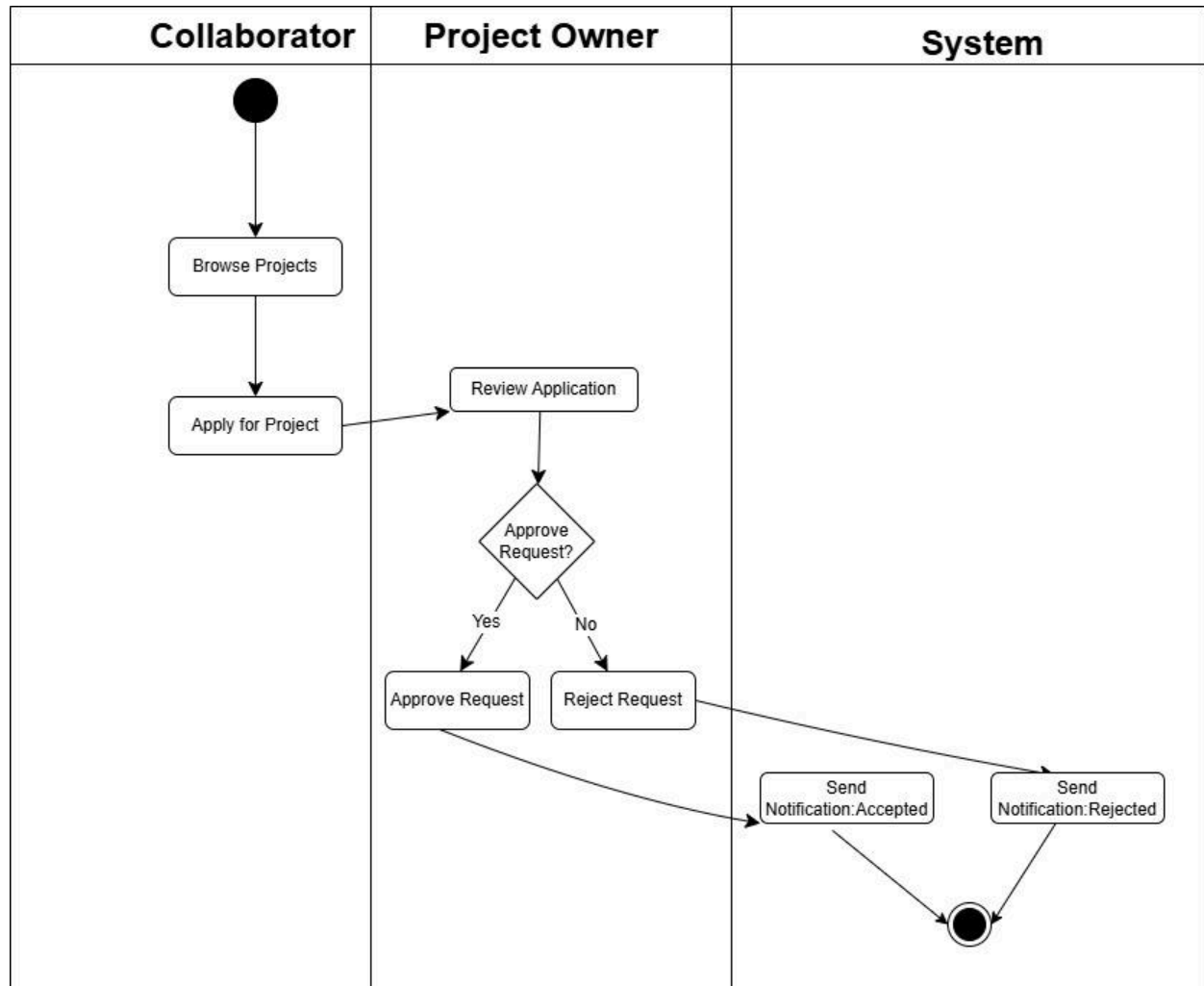


ACTIVITY DIAGRAMS

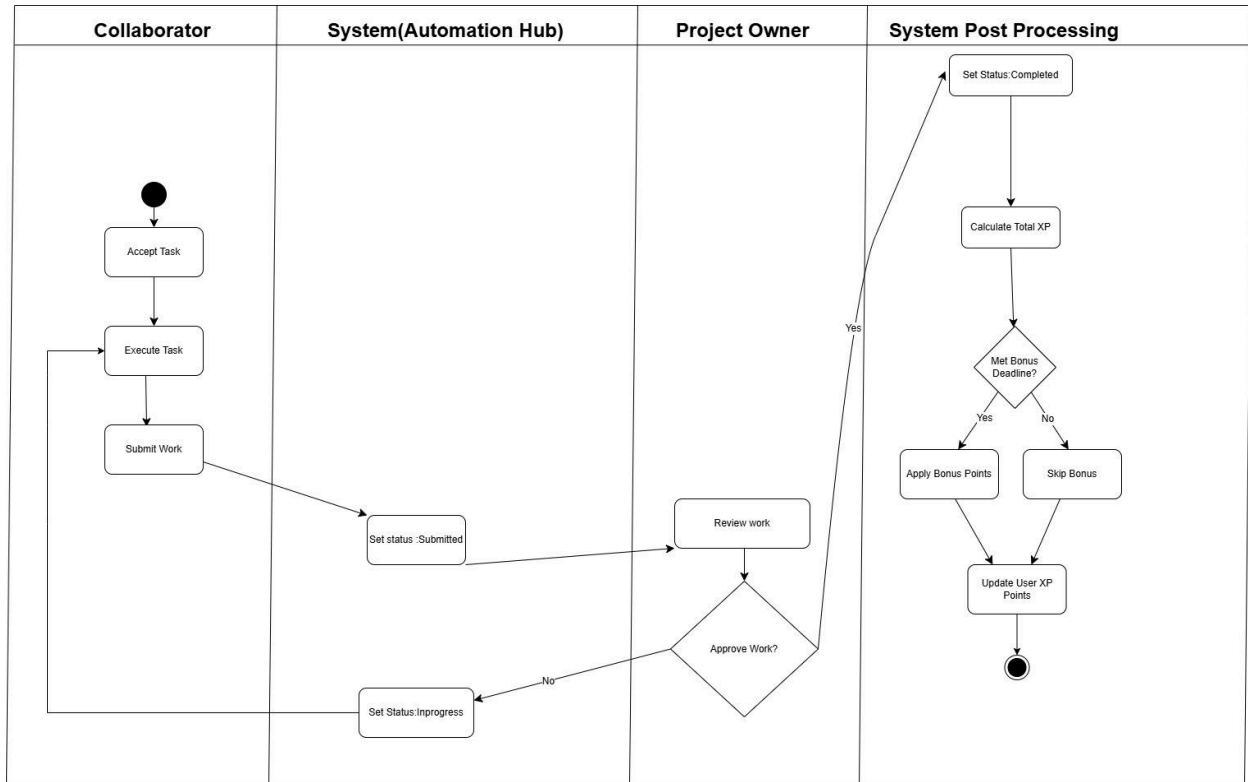
PROJECT CREATION



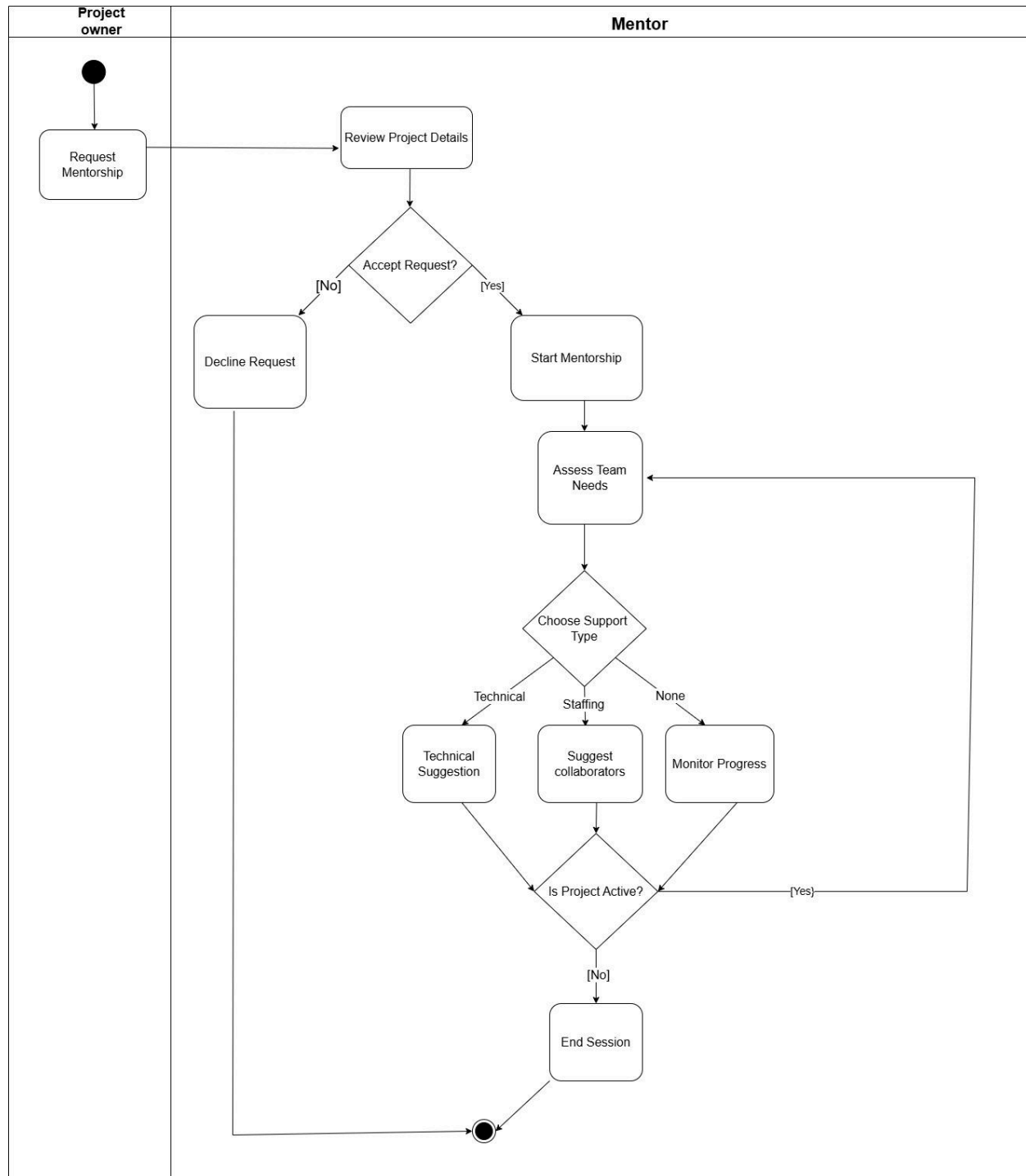
RECRUITMENT



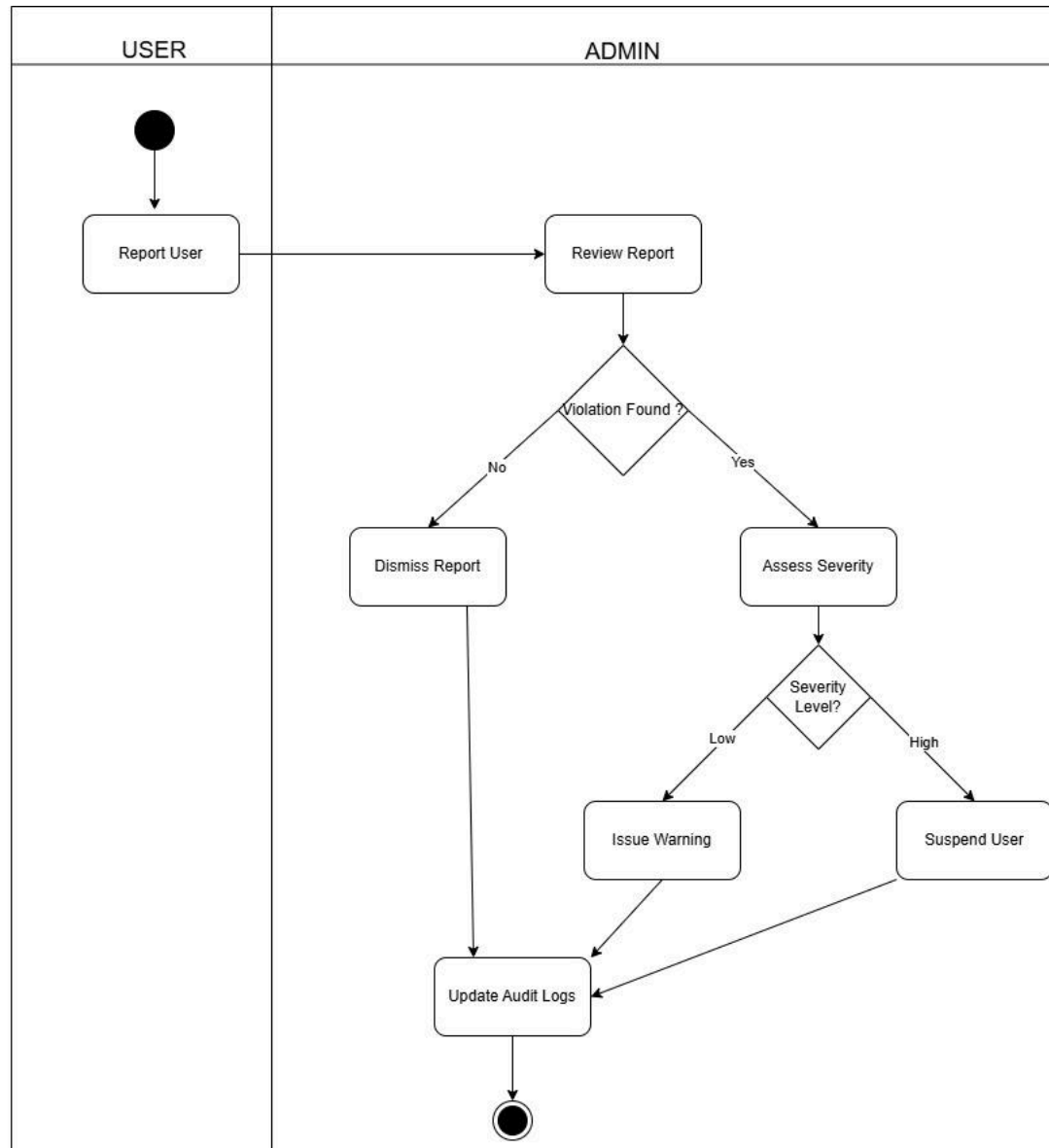
TASK EXECUTION



MENTORSHIP WORKFLOW



ADMIN WORKFLOW



SEQUENCE DIAGRAM

