

Homework - 1

Group Number : 13

Solution - 1: Use Case

Identified roles in this business are:

Role	Responsibilities
Developer	a. Creating and submitting salary raise requests.
Manager	a. Reviewing submitted salary raise requests. b. Checking performance reports. c. Checking priority among team members. d. Approving, rejecting, or suspending the request for negotiation.
Financial Manager	a. Evaluating approved requests for budget feasibility. b. Approving, rejecting, or postponing raises based on available budget.

Identified use cases in this business:

- a. Login
- b. ValidateUser
- c. CreateSalaryRaiseRequest
- d. SendRequest
- e. ReviewRequest
- f. CheckPerformanceReport
- g. CheckPriority
- h. FinalizeRaise
- i. ReferToFinance
- j. CheckBudget

Some exceptional use cases:

- a. InvalidCredentials
- b. PerformanceIssue
- c. PriorityConflict
- d. SuspendForNegotiation
- e. InsufficientBudget
- f. PostponeRaise

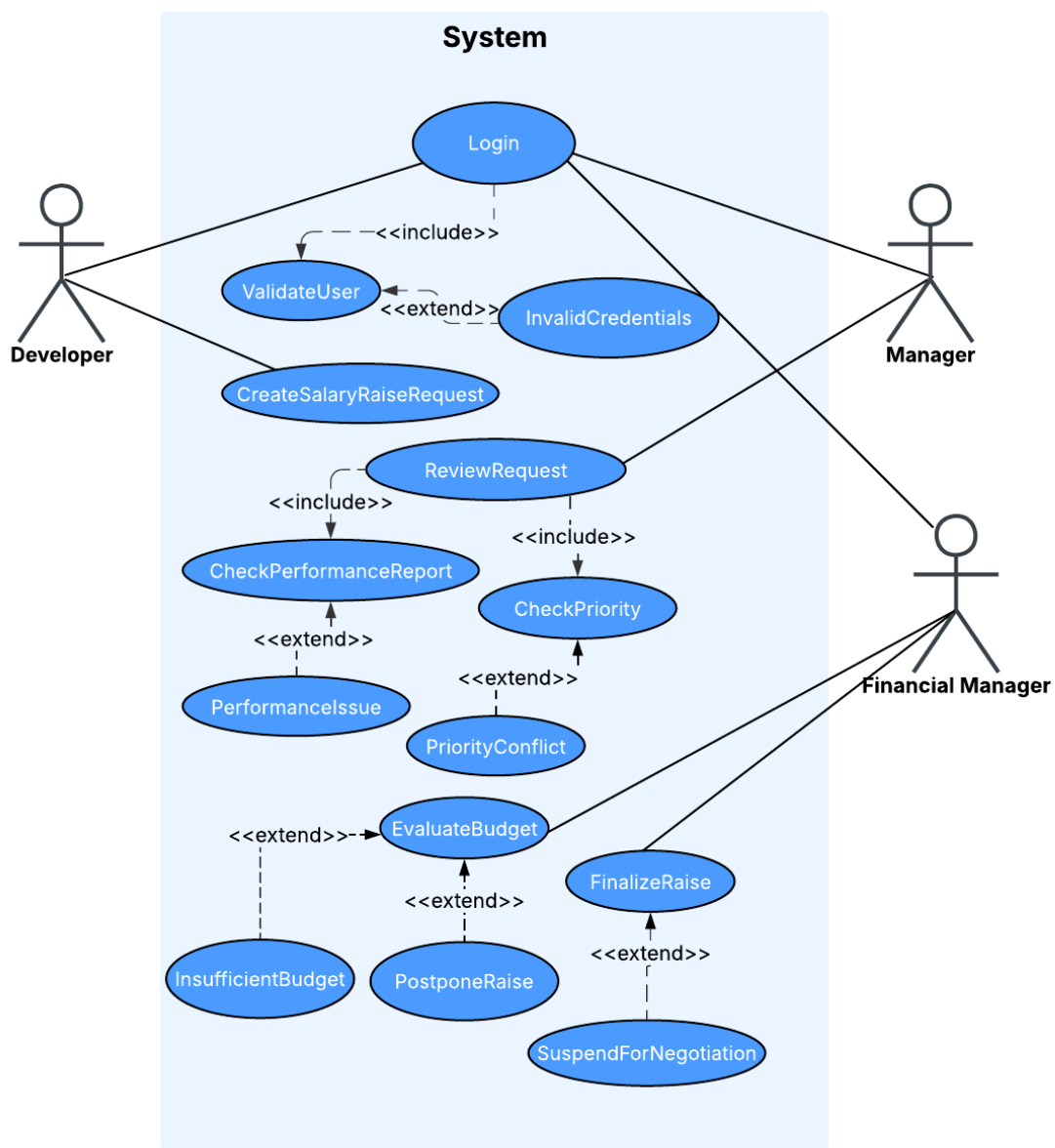
Use case description:

Name: ManageSalaryRaiseRequest
Participating actor(s): Developer (Initiator) Manager Financial Manager
Entry Conditions: <ol style="list-style-type: none">1. Developer logs in to the system.2. System validates the developer credentials.3. Developer accesses the create salary raise request functionality. <p>This use case extends InvalidCredentials, PerformanceIssue, PriorityConflict, SuspendForNegotiation, and InsufficientBudget use cases. They are initiated when the login credentials are invalid, or when there is a problem with the developer's performance report, or when there are conflicts in priority among other developers, or when the request needs to be suspended for further negotiation, or when the Financial Manager determines that the budget is insufficient to grant the raise at the current time.</p>
Exit Condition: Developer, Manager, and Financial Manager have agreed whether to approve, reject, postpone, or negotiate the salary raise request.
Quality Conditions: The system shall ensure high availability with uninterrupted operation, and guarantee the confidentiality and integrity of salary related information.
Event Flow: <ol style="list-style-type: none">1. Developer chooses to create a new salary raise request application.2. System displays the salary raise request form.3. Developer fills the application with the required details and justification.4. Developer chooses to send the application to the Manager.5. System displays the new request to the Manager.6. Manager reviews the application and chooses to check the performance report of the developer.7. System displays the performance report summary to the Manager.8. Manager chooses to check the priority of other pending requests.9. System displays the list of salary raise requests to the Manager.10. Manager reviews the application and chooses to approve, reject, or suspend

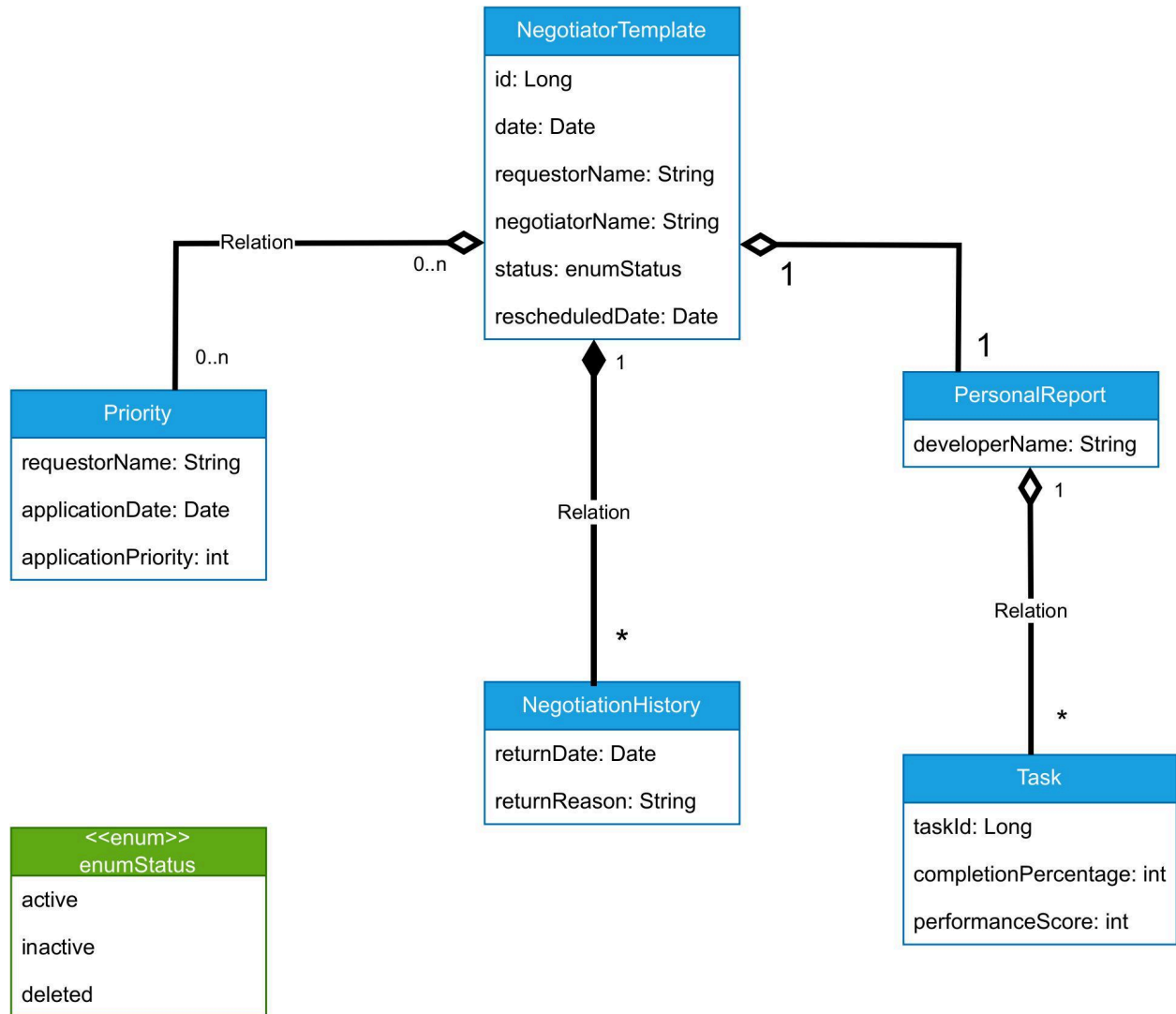
the request for negotiation.

11. If the Manager approves, the request is forwarded to the Financial Manager.
12. Financial Manager reviews the application and checks the available budget.
13. Financial Manager chooses to approve immediately, reject, or postpone the raise for a later effective date.
14. System updates the request status (Approved, Rejected, Suspended, or Postponed).
15. System displays the result of the request to the initiating Developer and informs the Manager.

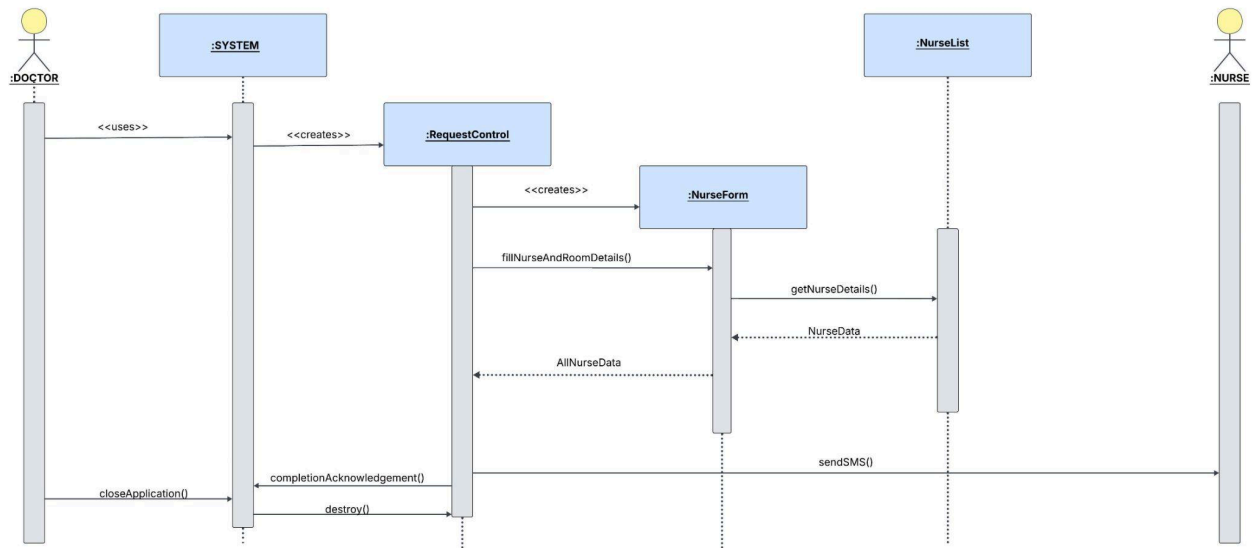
Use Case Diagram :



Solution - 1: Class Diagram



Solution - 3 : Sequence Diagram



Solution - 4 : Activity Diagram

