

# Modern Methods in Software Engineering

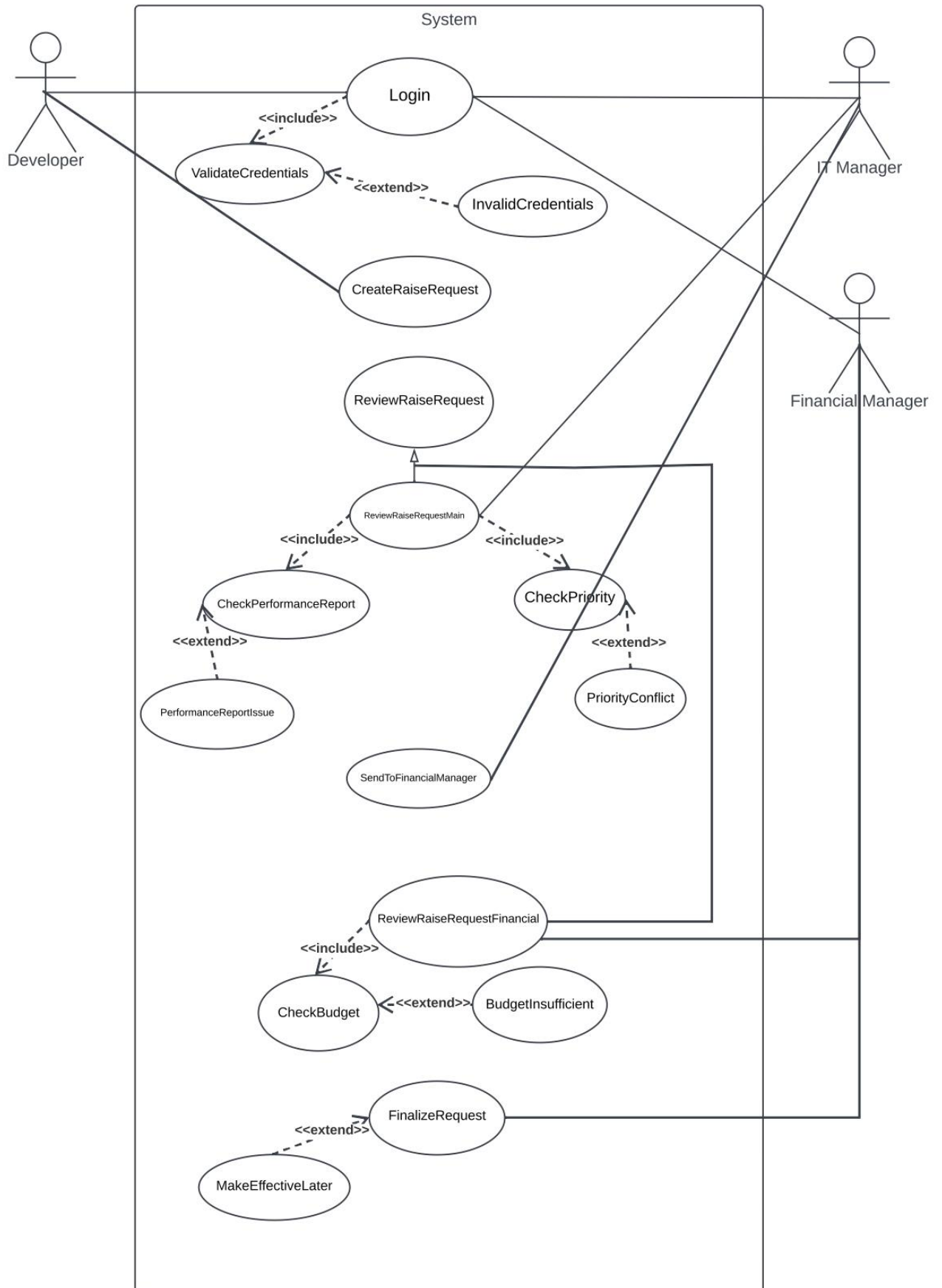
## Homework 1

*Authors: Nikoloz Miruashvili, Reethika Ambatipudi*

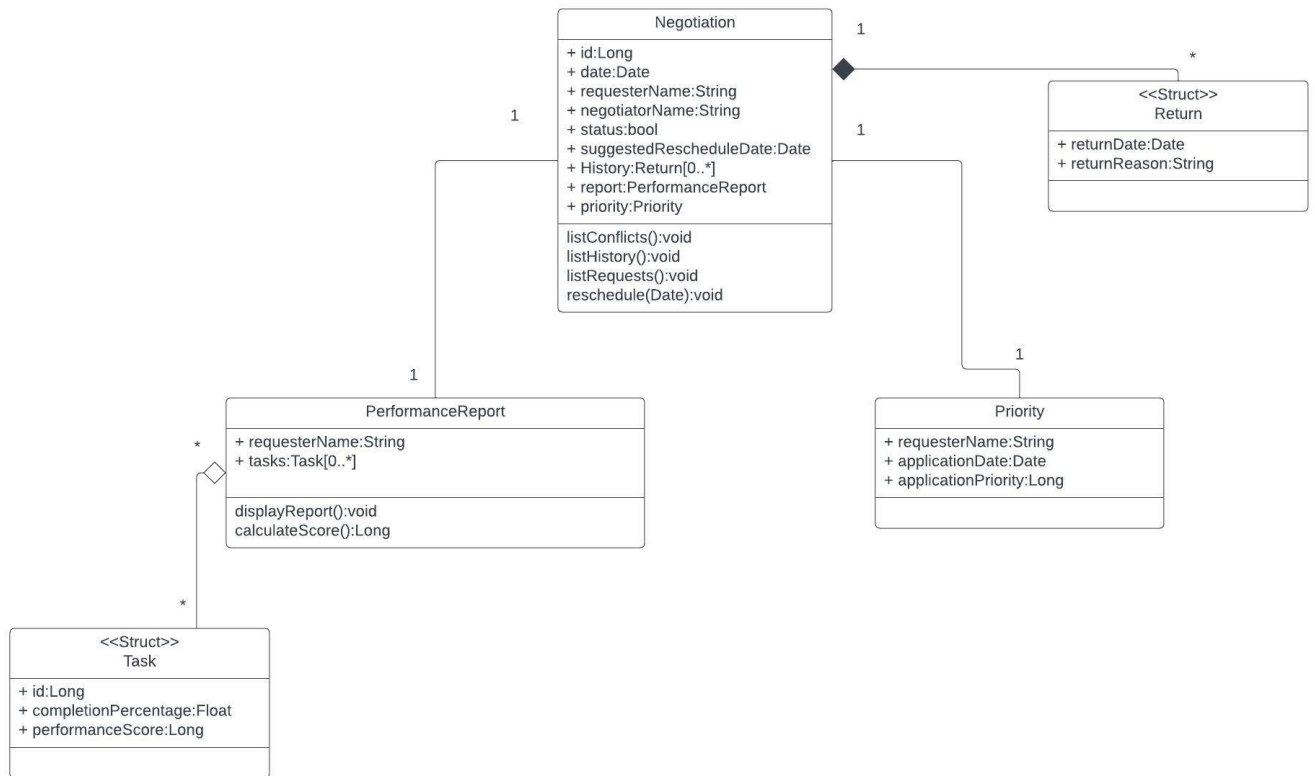
In this homework Nikoloz Miruashvili and Reethinka Ambatipudi worked on use case diagrams, class diagrams, sequence diagrams and activity diagrams. The former two were initially done by Nikoloz and reviewed by Reethika, while the latter two were initially done by Reethika and reviewed by Nikoloz.

Question 1:

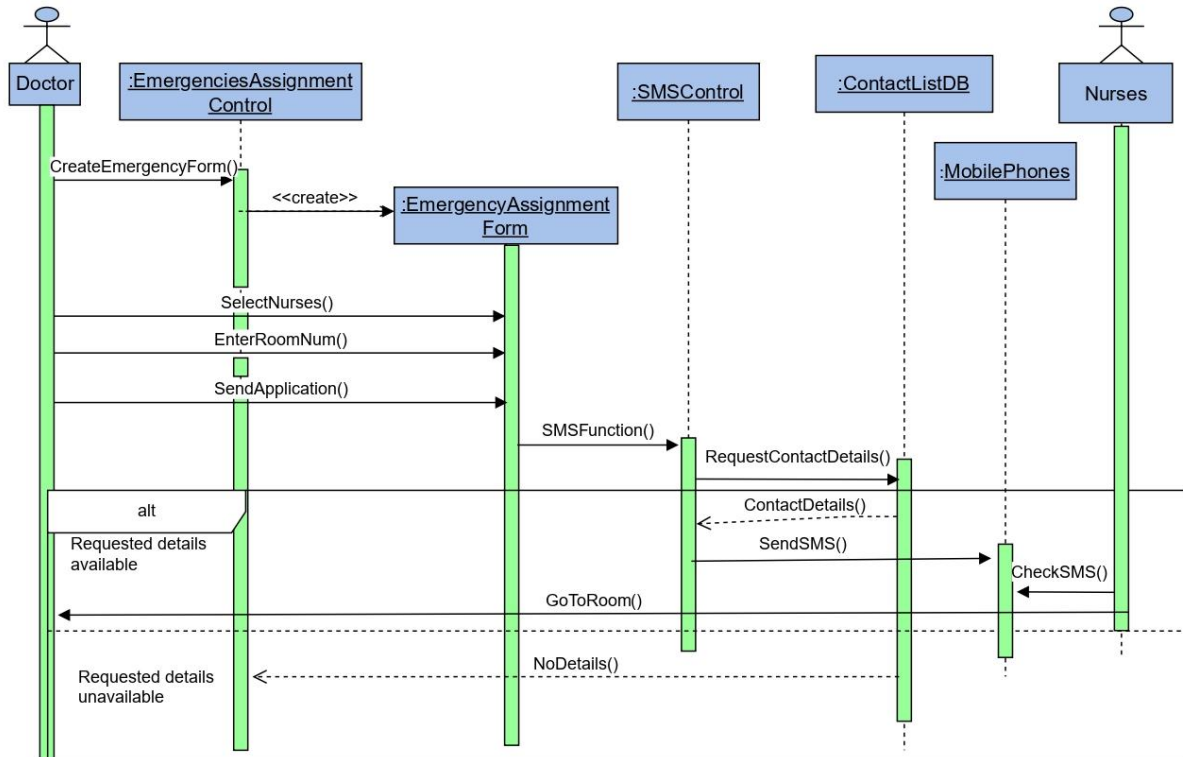
<b>Name:</b> ReviewRaiseRequests
<b>Participating actors:</b> developer(Initiator), IT manager, financial manager
<b>Entry Conditions:</b> 1) Developer logs into the system 2) The System Validates developer's credentials 3) Developer accesses Create Raise Request functionality  The use case diagram extends InvalidCredentials use case which is initiated if the developer enters incorrect credentials and subsequently cannot join, PerformanceReportIssues for when there are issues in developers performance report, PriorityConflict for when the developer lacks the priority, BudgetInsufficient for when there is insufficient budget for giving the raise and MakeEffectiveLater for making the raise effective at a later date
<b>Exit Conditions:</b> <b>The developer has successfully applied for a raise and has received a confirmation or denial for the raise by IT manager and/or Financial manager, or it was decided to make raise effective at a later date</b>
<b>Quality Conditions:</b> The system should work when required and provide effective communication flow for all the actors without malfunctioning
<b>Event flow:</b> 1) Developer successfully logs into the system and accesses Create Raise Request functionality 2) Developer creates a new request for a raise 3) Developer sends a raise request to the IT manager 4) The system displays developer's performance report and priority 5) IT manager checks the performance report and the raise priority level of the developer 6) IT manager decides if giving a raise is appropriate 7) IT manager rejects the raise offer or sends it to the financial manager 7) Financial manager checks the budget and decides whether to approve, reject or make the raise request effective later 8) The system displays the final result of the request to the developer



## Question 2:



### Question 3:



## Question 4:

