Functional requirements

Critical priority:

1. As a project creator, I want to create a project in the system, so that team members could see and work on it.
2. As a team member, I want every project to have a function to add a task so that team members would be able to add tasks after the requirement is created.
3. As a team member, I want to receive information about ongoing projects, such that I can check status, acceptance and rejections of tasks.
4. As a team member, I want to see the deadline of the project, such that I could manage my work.
5. As a team member, I want to see the start date of the project, so that I could manage time spent on the project.
6. As a team member, I want to register the time that I have spent on an assigned task, so that it would be visible in the system.
7. As a company owner, I want to see how much time each team member spent on different projects, such as I can track team members' productivity.
8. As a team member, I want to see future projects, such that I can see who is responsible for what.
9. As a team member, i want to see the startdate of a requirement, such that i could manage my tasks for every requirement i have created for project.
10. As a team member, i want to see a list of all ongoing requirements, such that i could manage my work.
11. As a team member, i want to have a add and remove button for every requirement and every new requirement should have “Not started” status, such that i will have a better workflow.
12. As a team member, i want to have a button for customize every requirement, such that, when tasks are done, i should be able to change the status of a requirement from “Started” to “Ended” or when a requirement is started, then change status to “Started” from “Not started”.
13. As a team member, i want to see the task done and undone for every requirement, such that i will know how to manage my workflow.
14. As a team member, i want to see the time spent for every requirement registered from time spent on every task, such that i will be able to see how many hours the members worked on the requirement.

High priority:

15. As a team member, I want to register a new project with a unique code, so that other team members can find the project by code.
16. As a project creator, i want to have access to assign responsible team member for requirement, such that only one person could do that.
17. As a project creator, i want to have access to assign members for every task, such that only one person could do that.
18. As a team member I want to be able to manage projects deadlines.
19. As a team member, I want to change status of a project like “Not started, Started, Ended, Approved or Rejected”, so that it would be easier to track all projects by status.
20. As a team member, I want to search for projects, such that, by entering project id, I can find the project.
21. As a team member, I want to access the entire project information, such that it can be accessed when searching for historical data.
22. As a customer, I want to see my project status and progress, such that I can track changes and work.

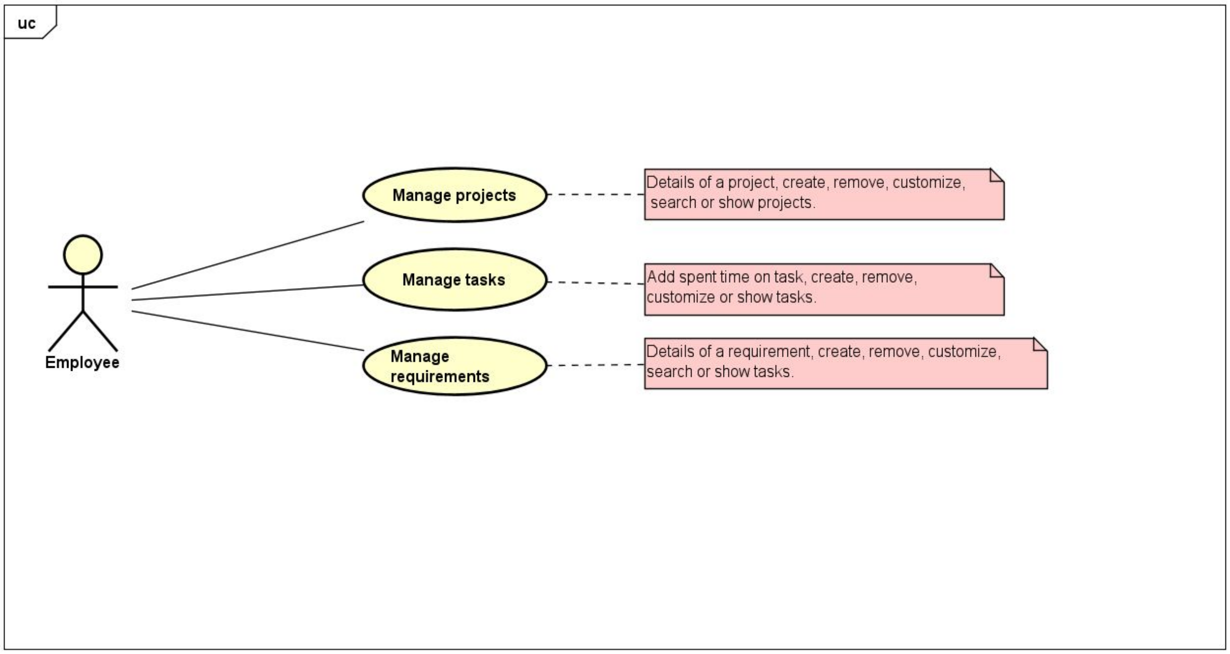
Low priority:

23. As a project owner, I want to have three roles: “Team member, Scrum master, Product owner” for every project and also “Project creator”, so that everybody would know their function.
24. As a company owner, I want the project team to be able to see a short description of the project, so that they would understand the goal of the project.
25. As a customer, I want to see estimated project completion time, such that I can plan implementation of the system.

Non-functional:

25. The system GUI should be implemented in JavaFX.
26. The project information should be in one file.

Use case diagram



Use case descriptions

Use case	Manage projects
Summary	Details of a project, create, remove, customize, search or show projects.
Actor	Team member
Precondition	For show/create projects, GUI needs to be started. For remove/customize a project needs to be selected first. For show requirements, a project needs to be selected first.
Postcondition	A project is removed, created, or showed with deadline, members count, status, title and description details. If “Requirements”, requirements of a project are showed. If “search”, a project is showed in the table.
Base sequence	1. GUI started, the projects are showed. 2. If you want to add a project, then just press “Add”. 3. If chosen to “Add” then: a. Enter a title. b. Enter a description. c. Select a date that represents the deadline. d. Press “Add” button. 4. If you want to remove/customize a project, then first select it. 5. If chosen to “Remove” button: a. A confirmation window will appear. b. Press “Yes” for removing the project or “No” for cancelling. 6. If chosen to “Customize” button: a. Enter a new title. b. Enter a new description. c. Select a new deadline. d. Change the status from the current one. 7. If you want to search for a project, a. Enter a project id in a search bar. b. If the project does not exist, go to step 1. c. If the project was successfully found, it will be displayed. 8. If you want to see details of a project: a. Press “Requirements” button. b. A list of all requirements of project selected will be displayed.
Exception sequence	1. If you don’t select a project and you press “Remove”, “Customize”, “Requirements”, a error label will be showed with the “Select a project first.” text. 2. If you don’t feel all boxes for creating or editing a project, then an error will be showed and will not allow you to take the action chosen. 3. If project searched does not exist, then an error will be showed with text “This project does not exist”.

Note	The project creation and edit can be cancelled any time and not saved, by pressing cancel button. You cannot assign member for a project. Member count will be changed every time when you assign a member for every task or a responsible team member for every requirement. Project has requirements who has task. You will be able to add requirements later on, by selecting “Requirement” button. You cannot change project id. When you create a project the start date will be initialized with the date the project was created. When you create a project the status will be initialized with “Not started”. Only one person can manage projects at the time despite his role. This Use case covers requirements 1, 4, 8, 15, 18, 19, 20, 21, 22, 23, 24, 25.

Use case	Manage tasks
Summary	Add spent time on task, create, remove, customize or show tasks.
Actor	Team member
Precondition	To show or create tasks, GUI should be started and button “Tasks” from requirements list window (Manage requirements use case) should be pressed. To remove or customize, a task should be selected first. To add members to a task, it should be selected first. To add spent time to a task, it should be selected first.
Postcondition	A task is removed, created, edited or showed with deadline, members count, status,, title and description details.

Base sequence	1. The tasks are showed.
	2. Choose between “Remove”, “Customize”, “Add” or “Members”, “Add T.S” buttons.
	3. If chosen “Add T.S.”:
	    a. Enter time spent on this task.
	    b. Press “Add”.
	4. If chosen “Remove”:
	    a. A confirmation window will appear.
	    b. Press “Yes” if you want to remove the project, or “No” if you want to cancel the action.
	5. If chosen “Add”:
	    a. Enter title desired.
	    b. Enter description desired.
	    c. Select a deadline.
	    d. Press “Add” and task is created.
	6. If chosen “Customize” :
	    a. Enter desired title.
	    b. Enter description desired.
	    c. Select a deadline.
	    d. Edit current status.
	7. If chosen “Members” :
	    a. A list of all members of the task will appear.
	    b. Choose between “Remove”, “Add”, “Customize” buttons.
	    c. If chosen “Add” :
	        i. Enter member name desired.
	        ii. Enter member role desired.
	    d. If chosen “Remove” :
	        i. A confirmation windows will appear.
	        ii. Press “Yes” if you are sure that you want to remove that member from task, or “No” to cancel the action.
	    e. If chosen “Customize” :
	        i. Edit member name.
	        ii. Edit role member.

Exception sequence	1. If you want to remove or customize a task and you did not select it, then an error will appear with “Select a task first” text. 2. If you want to add a task and you did not enter all details required for creating one, then an error will appear with “Please fill out all boxes”. 3. If you want to see all member of task and you did not select one, an error will appear with “Select a task first”. 4. On “Members” button clicked, if you want to remove or edit a member and you did not select it an error will appear with “Select a member first”. 5. On “Members” button clicked, if you want to add a new member and you did not fill all boxes, an error will appear with “Please fill out all boxes” and it will not let you to create new one.
Note	Once you create a new member for a task, the member count column from project list table will be counted with one. You cannot search a task, just a member from task. You have to have all boxes filled out if you want to change details of a task.

	When you create a new member for a task, the member count column will be increased by one. This use case covers requirements 2, 3, 6, 9,17.

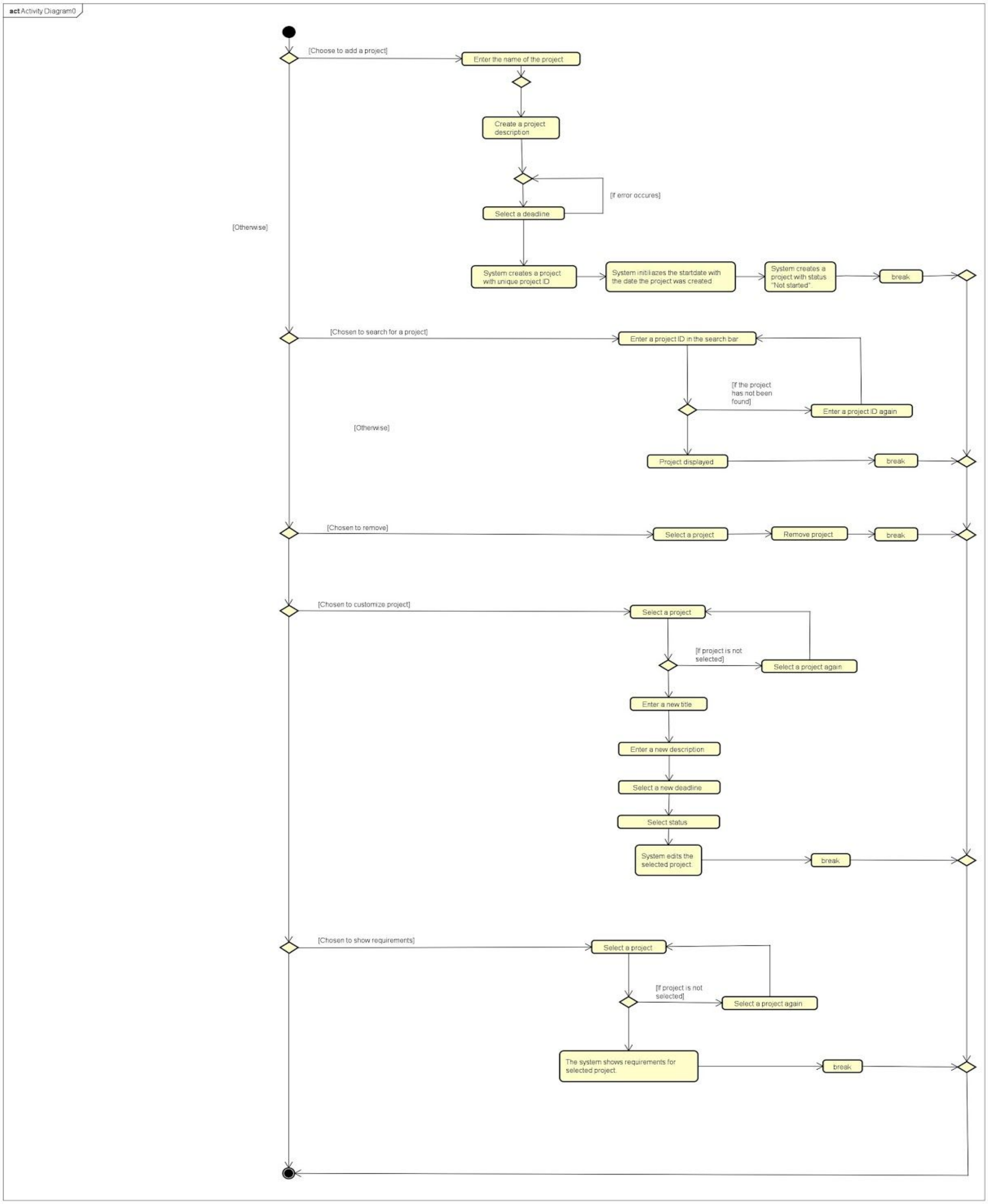
Use case	Manage requirements
Summary	Details of requirement, create, remove, customize, search or show tasks.
Actor	Team member
Precondition	To show or create requirements, GUI should be started and button “Requirements” from project list window (Manage projects use case) should be pressed. To remove or customize, a requirement should be selected first. To add Responsible Team Member for a requirement, it should be selected first.
Postcondition	A requirement is removed, created, edited or showed with responsible team member, status, title and description details.
Base sequence	1. The requirements are showed. 2. Choose between “Add R.M.”, “Add”, “Remove”, “Customize”. 3. If chosen “Search”: a. Enter requirement ID that you want to search. b. If the requirement with this ID does not exist, it goes back to the whole list of requirements. c. If the requirement does exist, it shows. 4. If chosen “Customize” : a. Enter title desired. b. Enter description desired. c. Enter status desired. 5. If chosen “Add”: a. Enter title desired. b. Enter description desired. c. Enter estimated hours desired. 6. If chosen “Tasks”: a. A windows with all task for selected requirement will appear. 7. If chosen “Remove”: a. A confirmation window will appear. b. Press “Yes” if you want to remove the requirement you selected or “No” if you want to cancel the action. 8. If chosen “Add R.M”: a. Enter desired responsible team member name. b. Press “Add”.
Exception sequence	1. If you want to remove, add a responsible team member or customize a requirement and you did not select it, an error will appear with text “Please select a requirement first”. 2. If you want to search a requirement and it does not exist, then an error with “This requirement ID does not exist” will appear.

	3. If you want to add a new requirement and you did not fill all boxes, then an error with “Please fill out all boxes” will appear.
Note	When you create a new requirement, the status will be initiliazed with “Not started”. When you create a new requirement, the responsible team member will not be initiliazed and the column will be setted with “Not assigned” text. If you add a responsible team member, then members count column from project list will be increased by one. This use case covers requirements

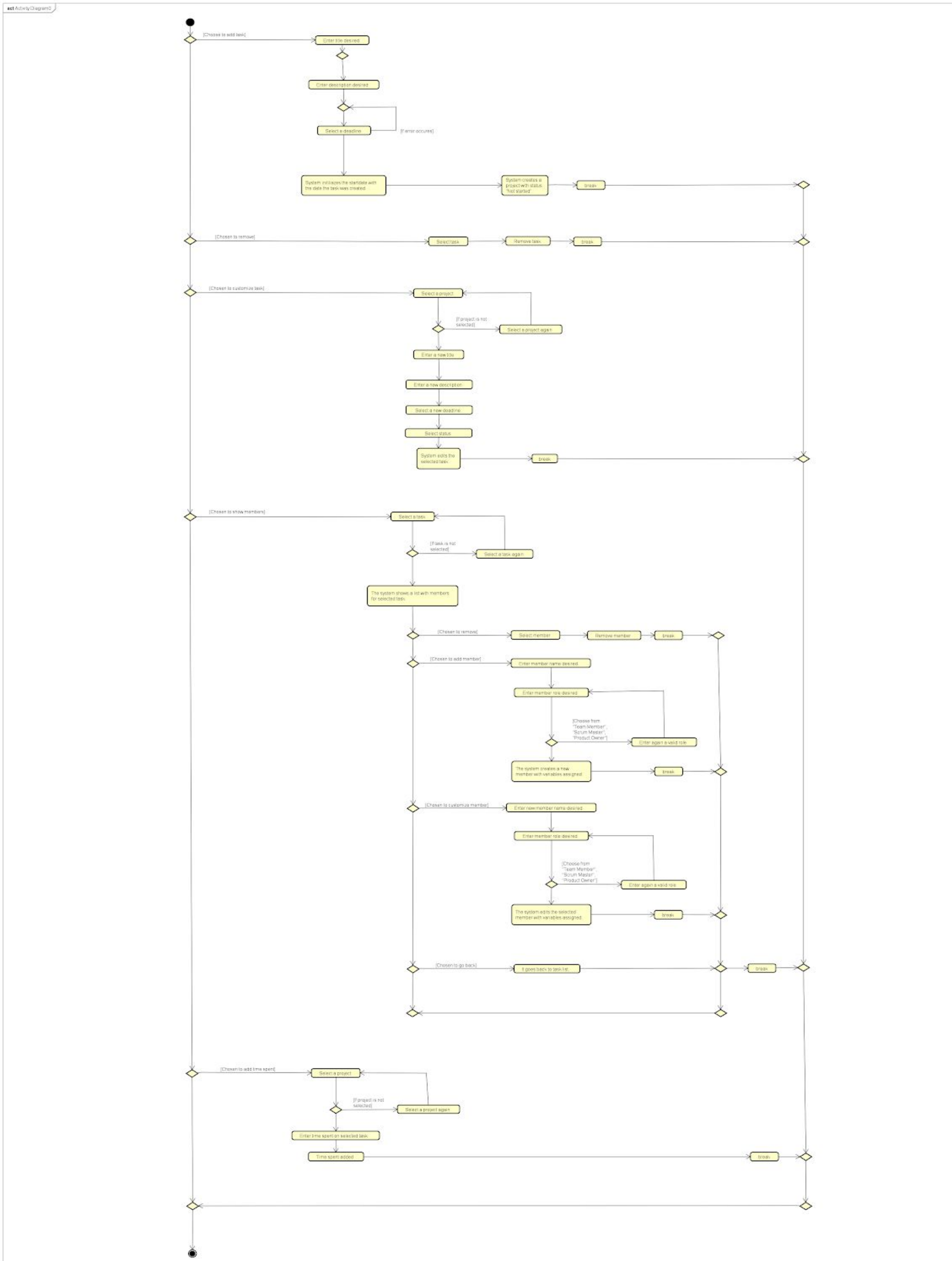
Relation between requirements and use cases

Use case	Covered requirements
Manage projects	1,4,8,15,18,19,20,21,22,23,24,25.
Manage tasks	2,3,6,9,17.
Manage requirements	5,7,10,11,12,13,14,16.

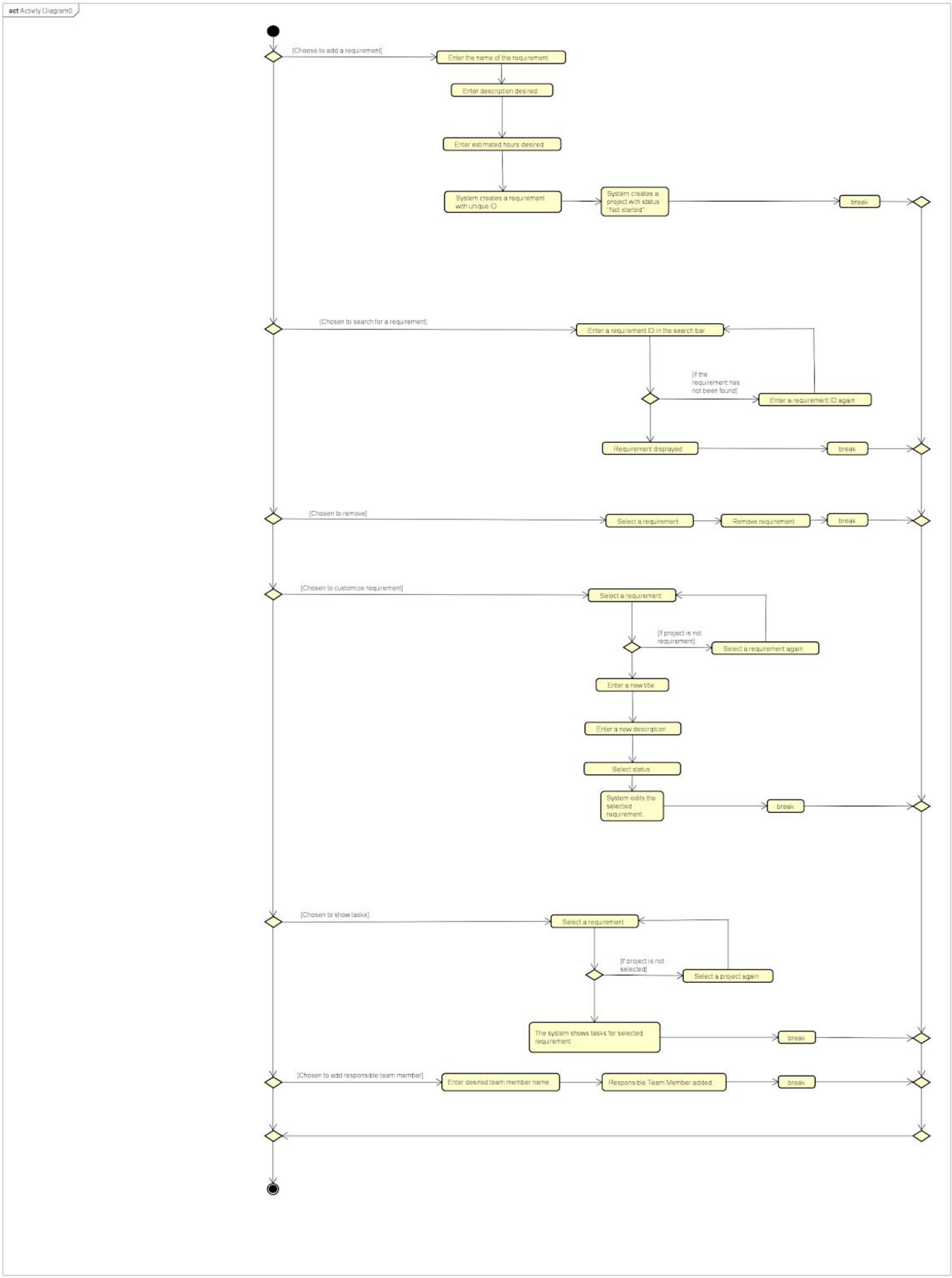
Manage projects (Activity diagram)



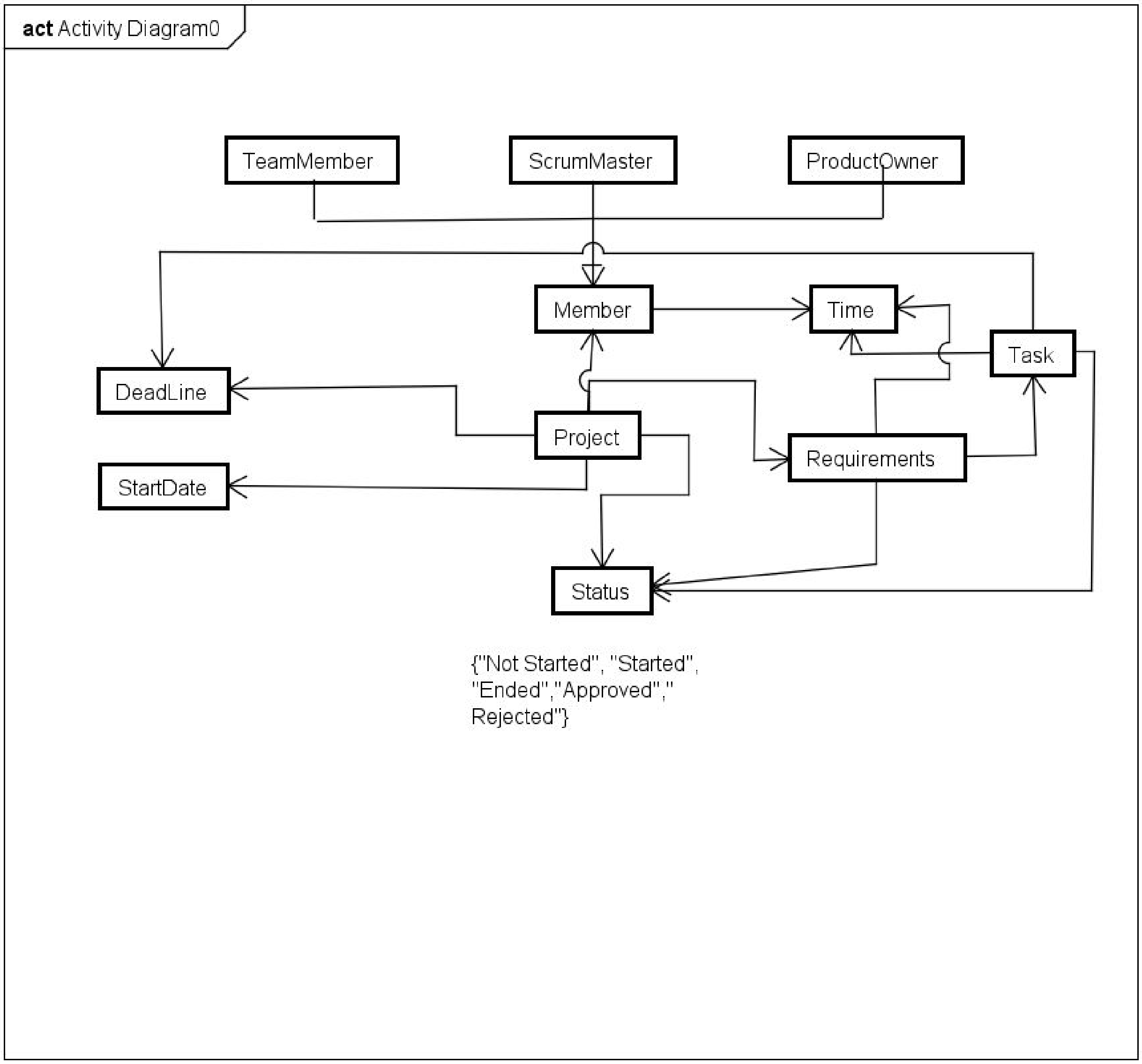
Manage tasks(Activity diagram)



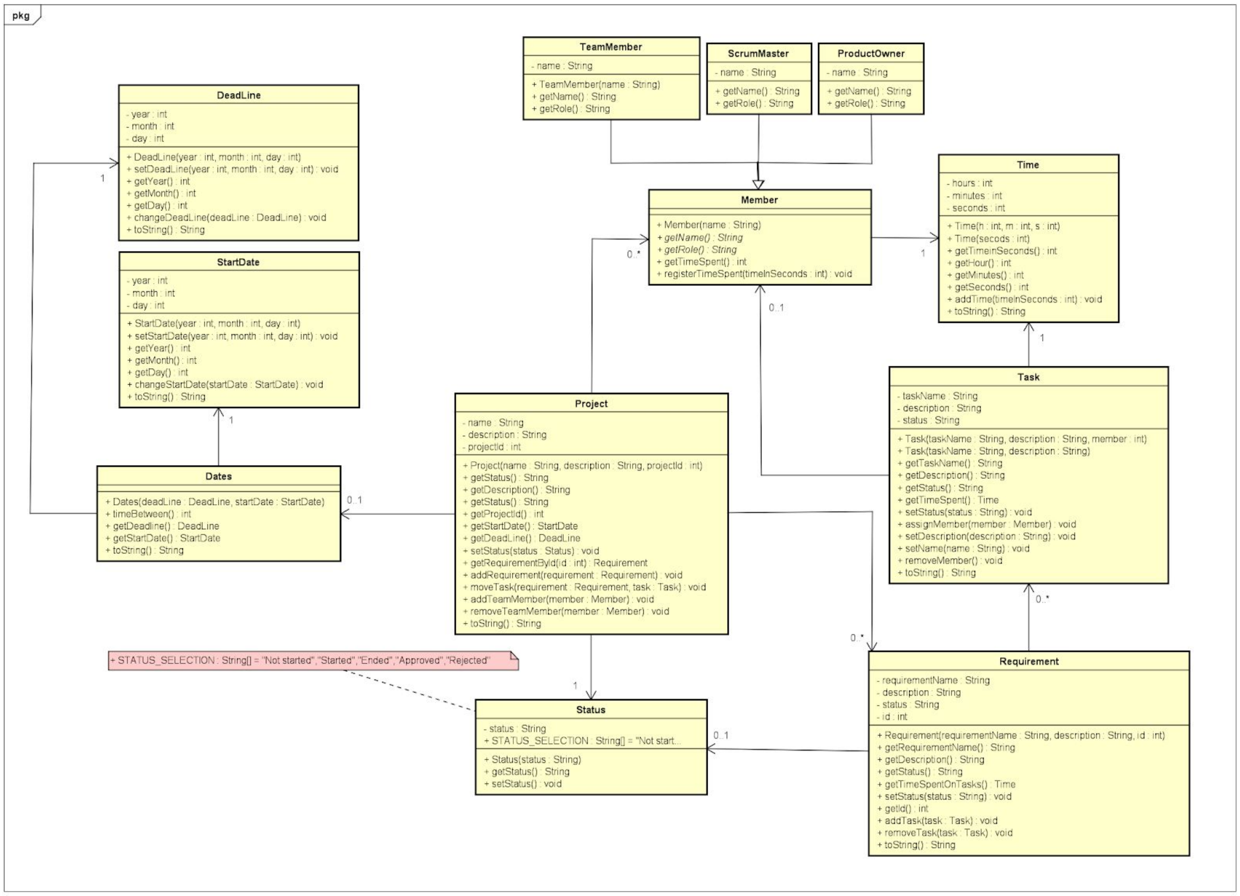
Manage requirements(Activity diagram)


act Activity Diagram0
[Choose to add a requirement]
Enter the name of the requirement
Enter description desired
Enter estimated hours desired
System creates a requirement with unique ID
System creates a project with status "Not started"
break
[Chosen to search for a requirement]
Enter a requirement ID in the search bar
[If the requirement has not been found]
Enter a requirement ID again
Requirement displayed
break
[Chosen to remove]
Select a requirement
Remove requirement
break
[Chosen to customize requirement]
Select a requirement
[If project is not requirement]
Select a requirement again
Enter a new title
Enter a new description
Select status
System edits the selected requirement
break
[Chosen to show tasks]
Select a requirement
[If project is not selected]
Select a project again
The system shows tasks for selected requirement
break
[Chosen to add responsible team member]
Enter desired team member name
Responsible Team Member added.
break

Domain model

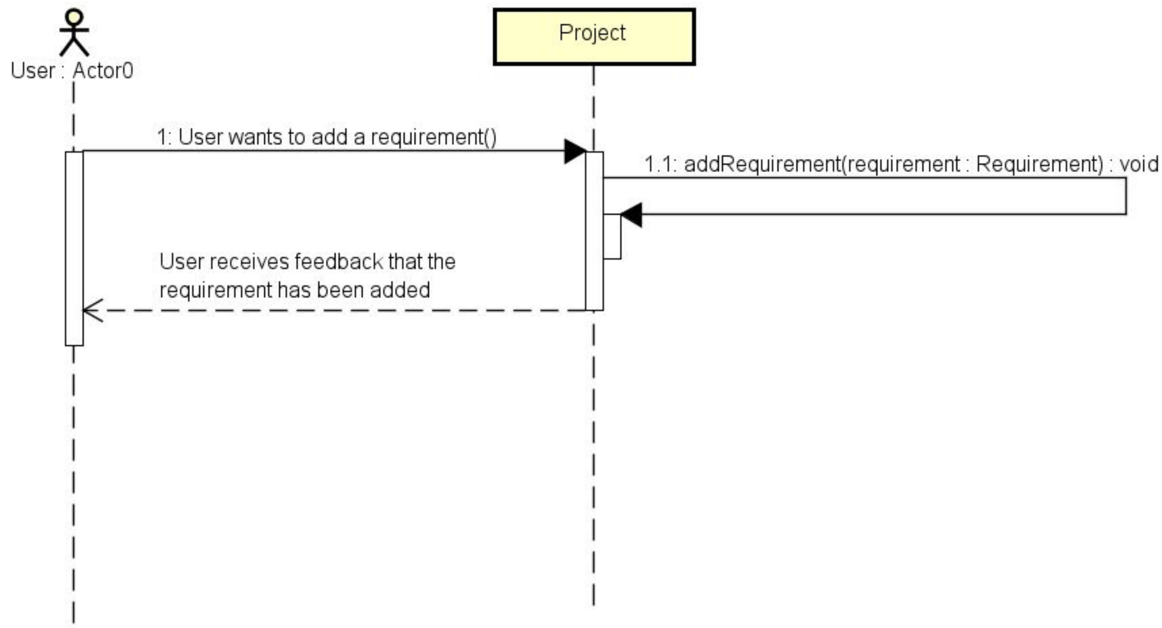


Class diagram

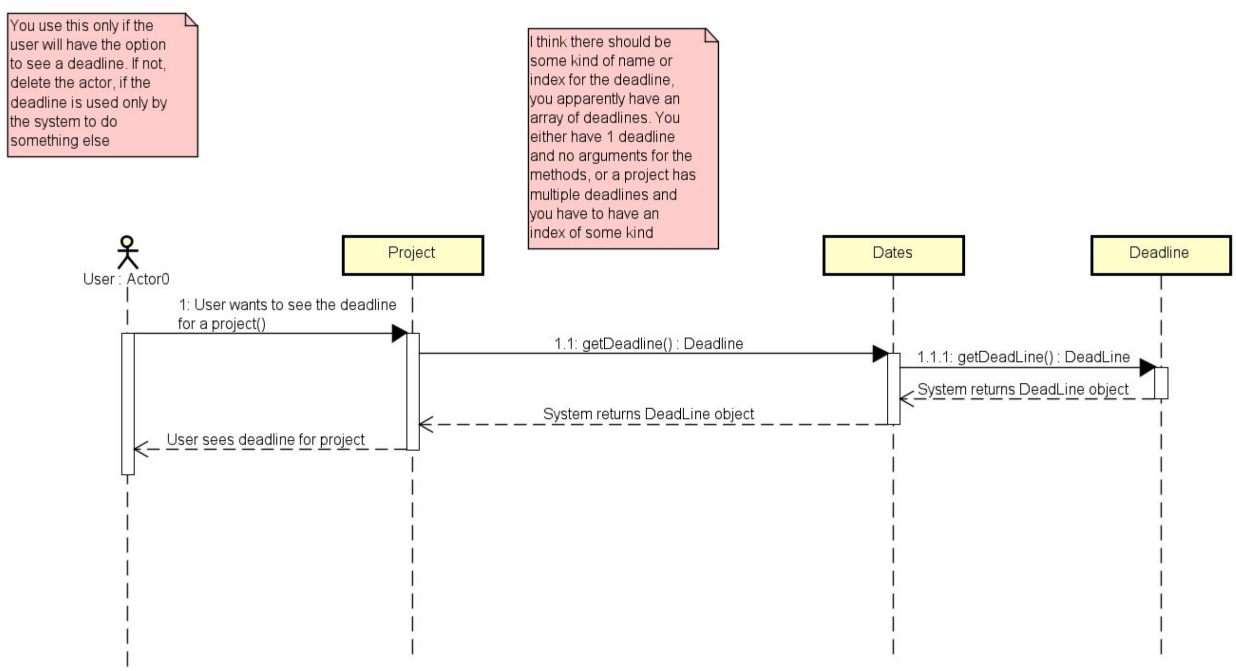


Sequence Diagrams

Project - addRequirement(requirement : Requirement) void



Project - getDeadline() : Deadline



Group 5