The critical Use case we picked is: : **CREATE TASK**

1 Use Case Name

- Create Task

2 Primary Actor

- User

3 Scope

- Personal Task Management System

4 Level

- User goal

5 Trigger

- User selects “Create Task”

6 Preconditions

- User is using the system

7 Postconditions (Success Guarantee)

- A Task instance is created.
- Task has:
  - Title set
  - optional description set
  - priority set
  - optional dueDate set
  - creationDate set
  - Status = open
- An ActivityEntry is recorded

8 Main Success Scenario (numbered steps)

1. User chooses to create a task.
2. System prompts for task details.

3. User enters
    - title
    - optional description
    - priority
    - optional dueDate
4. User confirms creation.
5. System creates the Task.
6. System sets
    - creationDate to the current date/time
    - status to open.
7. System records an ActivityEntry indicating task creation.
8. System returns confirmation including the taskID.

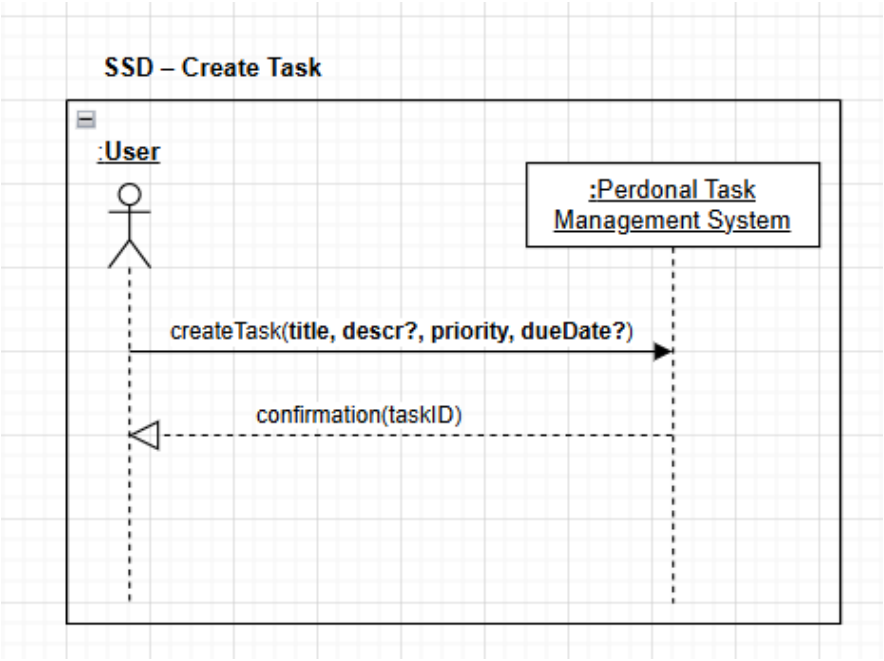
9 Failure Scenario (at least one required)

Example: Missing title

3a. User submits task without title.
3b. System displays an error message.
3c. Use case resumes at step 3.

This shows creation of one success and failure case

SSD: CREATE TASK



System Operations & Contracts

system operations

Operation:

→ **createTask**(title, description?, priority, dueDate?)

Operation contracts

Operation Contract for createTask

Preconditions:

- title is provided and is non-empty.

Postconditions:

- A Task instance t was created.
- t.title = title
- t.description = description (if provided)
- t.priority = priority
- t.dueDate = dueDate (if provided)
- t.creationDate was set to the current date/time.
- t.status = open

Additionally:

- An ActivityEntry instance a was created.
- a.timestamp was set to the current date/time.
- a.actionType = "createTask”
- a was associated with t.