

Use case UC1: Create Task

Primary Actor: User

Stakeholders and Interests:

- User: Wants a fast way to capture tasks, with correct dates, priority, and optional fields saved properly. Wants confidence the task was created and can be found later.
- System: Must keep consistent task data (valid status/priority/date formats) and record an activity entry for significant actions.

Preconditions: The system is running and the user is at the command prompt of the Task Management System.

Success Guarantee (Postconditions):

A new Task is created and stored in the system with a title, description, creationDate, due date, priority and status.

An ActivityEntry is created for that task with a timestamp, type, and description.

Main success scenario (or basic flow):

User chooses the "Create Task" command.

System prompts for task information: title (required), description (optional), priority (required), due date (optional).

User enters a title, optionally a description, selects a priority, and optionally enters a due date.

System validates the input (title not empty, priority valid, due date format valid if provided).

System creates the Task with creationDate = now, status = open, and stores it.

System records an ActivityEntry ("Task created") for the task with timestamp = now.

System confirms creation and displays the new task's identifier and key details.

Extensions (or alternative flows):

If title is missing or blank, indicate error and re-prompt for title.

If invalid priority is entered, indicate error and re-prompt for priority.

If invalid due date format is entered, indicate error and re-prompt for due date (or allow blank).

If the system cannot save the task (storage failure), indicate error and cancel task creation.

Special requirements:

Command-line interaction only.

Input validation must be clear and user-friendly (meaningful error messages).

Confirmation must include the created task's identifier.

Technology and Data Variations List:

Priority input may be typed (low/medium/high) or selected from a numeric menu (1/2/3)

Due date may be omitted; if provided it must follow a consistent format (e.g., YYYY-MM-DD).

Open issues:

Exact priority scale: only low/medium/high, or also numeric levels (1..5)?

Date/time format rules (timezone handling, accepted formats).

Persistent storage choice (file vs database) and how storage errors are surfaced.