

Patika.dev & DefineX Java Spring Boot Bootcamp Bitirme Projesi

Problem Definition

Subject: Advanced Task Management

Story: Lorem Ipsum corporation has decided to change its legacy task manager application. The current application become outdated, slow and does not meet the current requirements of the corporation anymore. After a serious alternative tool research, the company board decided to develop an Advanced Task Management application in-house. Your task as a Developer is to implement this application. In the next sections you can find some details about the application.

Major Features:

Project and task management: As project group manager, I shall be able to manage projects related to a department. Also I shall be able to manage tasks of a project.

Team member assignment: As a team leader or project manager(in a deparment), I shall be able to assign team members to a task.

Progress tracking: As a team leader or project manager, I should be able to track the progress of a task. The progress shall have states (Backlog, In Analysis, In Development/Progress, Cancelled, Blocked or Completed).

Priority management: As a team leader or project manager, I should be able to assign priorities with task as critical, high, medium and low.

File attachment support: As a team member (Project Manager, Team Leader or other Team Members), I shall be able to attach one or more files to a task. The files shall be stored on the disk.

Constraints

- While implementing state management task progression:
 - **Happy Path:** Backlog \Leftrightarrow In Analysis \Leftrightarrow In Development/Progress \Leftrightarrow Completed
 - **Cancel Path:** In any state except Completed , the progress state can be assigned as Cancelled .
 - Blocked Paths:
 - In Analysis \Leftrightarrow Blocked
 - In Development/Progress \Leftrightarrow Blocked
 - When the state of a Task is assigned as Cancelled or Blocked , a reason must be entered.
 - Under no circumstances, a Task, which state is Completed , CANNOT be putback to any state.

- A team member (except Team Leader or Project Manager):
 - shall **NOT** be able to change the description and title of a task.
 - shall be able to change the attachments or state of the task.
 - shall be able to add comments.
- At minimum a task shall be able provide information about:
 - A user story description.
 - An acceptance criteria.
 - A state
 - A priority
 - A list of comments
 - A list of attachments
 - An assignee
- At minimum, a Project shall be able provide information about:
 - Responsible Department's Name
 - A status (In Progress, Cancelled or Completed)
 - A title
 - A description
 - A list of team members working on the project
- All **DELETE** operations are passive meaning records cannot be deleted from the storage.
- Unit tests is expected to be implemented.
- According to the corporation's quality standard, code coverage shall meet %80 of the code.
- The backend of the application shall be implemented with Java 21 and Spring Boot 3.

Not: Further information about frontend part will be announced later.

Good Luck!