

Project Release-3 Requirements

Submission Deadline: July 20th 2022

In Release-2, you implemented functionality to create and manage *workspace* and *boards*. Your project is now ready to add *tasks* related features. In this final iteration of your project, you will be developing the following features.

NOTE: Authentication feature is mandatory. It means that the web pages of your application should not be accessible to the user without logging in.

Feature details

Task Management

- a. **Create tasks:** Create tasks in the form of cards. Note that tasks are a part of boards and a workspace contains any number of boards.
- b. **Date field:** Create a date field for a task; it is used as due date for the task.
- c. **Assign tasks to members:** Assign a task to a team member belonging to the workspace.
- d. **Change status of tasks:** Allow users to change the status of tasks. For example, a user should be able to move a task from *To-Do* list to *Doing* list. Any user who is a part of the workspace can change the status of the task. Obviously, changes in the status are persistent (i.e., another user should be able to see the changes).

Search and filter

- a. **Search tasks:** Search for task cards based on task names. You would have a search box on the same page (i.e., board page where you are displaying the tasks in lists).
- b. **Filter tasks:** Filter the tasks based on the due date. You will offer at least three filters.
 - a. Due today
 - b. Due in this week
 - c. Overdue

Other requirements

- a. You are expected to have test cases for the backend with min. 70% line coverage. You need to have test cases for business logic; you may use mocked database objects wherever necessary.
- b. Working CI pipeline (both compile and test stages are passing without any issue).
- c. Run DesigniteJava on your backend code. Prepare an Excel sheet where you will analyze each reported smell (all except testability smells) and provide a justification.
 - If the identified smell is genuine, you will refactor the smell and write “Refactored” in justification.
 - If the identified smell could not be refactored, justify your understanding.

Marking Rubric

Task	Description	The task is complete with at least 70% code coverage	75% of the task is complete with test cases	50% of the task is complete with test cases	25% of the task is complete with test cases	Neither the task nor test cases are complete
Create tasks	API to create tasks	2	1.5	1	0.5	0
	Task cards on the UI	1	0.75	0.5	0.25	0
Date field	Save the selected date in your database using the API	1	0.75	0.5	0.25	0
	Have a date field on the UI to add completion date of a task	1	0.75	0.5	0.25	0
Assign a task to a member	API to assign a member to a task	2	1.5	1	0.5	0
	Option on the UI to add assignee for a task	1	0.75	0.5	0.25	0
Change status of tasks	API for changing the status of tasks. For e.g., to-do to in progress	2	1.5	1	0.5	0
	Option on the UI to change the status of tasks	1	0.75	0.5	0.25	0
Search based on task names	API to get the search keyword and return search results	2	1.5	1	0.5	0
	Search box to accept the search keyword and display results on the UI	1	0.75	0.5	0.25	0
Filter based on date	API for filtering the tasks and get the results according to the filter	2	1.5	1	0.5	0
	Filter option on the UI to choose one of the three filters mentioned in feature details section, and display the results.	1	0.75	0.5	0.25	0

Pages should not be accessible without logging in	Use localStorage on the frontend to check if a user has logged in. You can set a flag in the localStorage to check if user has logged in.	1	0.75	0.5	0.25	0
Working CI pipeline		2	1.5	1	0.5	0
Smell analysis and refactoring		4	3	2	1	0