Project Release-2 Requirements

Submission Deadline: 1st July 2022

By now you have a basic skeleton of your project structure and a plan for your project ready. For the second release, each project group is expected to complete two features:

1. User Management
2. Workspace and boards

This release will help you to complete almost 50% of your project and you will be left with only two more features for the term-end submission!

Feature details

You are required to follow TDD approach for every task, which means that you must write the tests first and then write your code. Test cases are required only for the backend code and use mocks wherever applicable, for e.g., database operations. The expected test coverage is at least 70%.

User Management

a. **Sign-up:** Register/Sign-up a user through their email address and a password. Follow basic password validation by having a minimum length of 8 characters, at least 1 uppercase character, 1 lowercase character, 1 number and 1 special character. You are not expected to hash the passwords; the passwords can be stored as plain text in the database (to keep things simpler). Ask at least one security question at the time of user creation; it will be used if the user forgets his/her password.

b. **Login:** A user must be able to login through their registered email address and password.

c. **Forgot password:** A user must be able to reset his/her password through this functionality. You are not expected to send any verification email or implement any OTP mechanisms (just ask user's security question).

Workspaces and Boards

- **Workspace**: A workspace is something that can hold multiple boards. For e.g., CSCI 3130 Workspace can have a board for planning the syllabus, classes and tutorials, or a board for each project group. The below figures illustrate the concept of workspaces and boards.
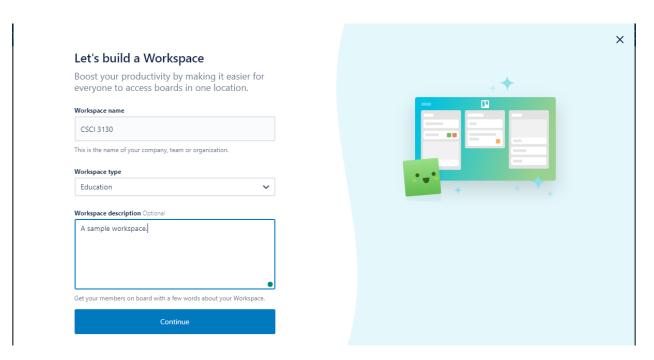
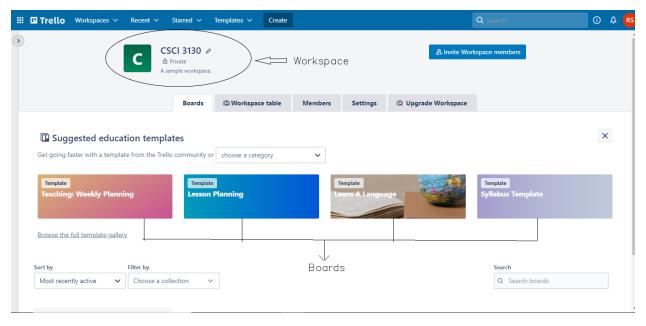*Figure 1: Sample workspace creation*

Figure 2: Illustration of having different boards inside a workspace

- **Board**: A board contains tasks which will be displayed in the form of cards. Each task would have a status as *To-Do*, *Doing* or *Done*. For e.g., your group project has several features and each feature has some tasks. You can create a card for each task and assign it a status. This way you will be able to track how many tasks you have completed or are yet to complete.

    The following features are expected *w.r.t* workspace and board.
    a. Create a workspace
    b. Add members to your workspace
    c. Update workspace details
    d. Create a board for a workspace
    e. Delete a board

CI Pipeline
Create a CI pipeline on GitLab with two stages: build and test.

Marking Rubric

For code and test coverage

	All tasks are completed with test cases covering at least 70% of the code	75% tasks and test cases are complete	50% tasks and test cases are complete	25% tasks and test cases are complete	Neither the task nor test case was attempted
Register	2	1.5	1	0.5	0
Login	2	1.5	1	0.5	0
Forgot Password	2	1.5	1	0.5	0
Create Workspace	2	1.5	1	0.5	0
Adding members to workspace	2	1.5	1	0.5	0
Create a board for a workspace	2	1.5	1	0.5	0
Delete a board	2	1.5	1	0.5	0

Marking rubric for CI pipeline

	Builds successfully along with the test case execution	Build failed
CI Pipeline	2	0