

Task: Build a Basic To-Do List Application

Front-end (Angular):

- Create a new Angular application.
- Design a simple user interface with an input field to add tasks and a list to display tasks.
- Implement a service to manage tasks (add, remove, retrieve).
- Use Angular forms for input validation and submission.
- Implement two components: one for displaying the task list and another for adding tasks.
- Use Angular's data binding to display the tasks in the list.
- Implement a button to mark tasks as completed and style them differently.
- Use Angular animations to provide a smooth transition when adding or removing tasks.

Back-end (NestJS):

- Create a new NestJS application.
- Set up a Task entity with properties like id, title, description, and completed.
- Implement a TaskService to handle CRUD operations for tasks.
- Set up a TasksController with endpoints for getting all tasks, creating a task, updating a task's completion status, and deleting a task.
- Use NestJS decorators for route handling and validation.
- Connect the application to a SQLite database (or any database of your choice) to store tasks.
- Implement error handling and appropriate HTTP responses.
- Implement logging using NestJS's built-in Logger.

Integration (Front-end & Back-end):

- Configure the front-end to make API calls to the back-end.
- Implement a way to fetch tasks from the back-end and display them in the Angular application.

- Implement the functionality to add tasks through the front-end, which then sends a POST request to the back-end.
- Implement the functionality to mark tasks as completed through the front-end, which sends a PUT request to the back-end to update the task's status.
- Implement the functionality to delete tasks through the front-end, sending a DELETE request to the back-end.

Time Limit: 1.5 Hours

Please note that this task is designed to cover various aspects of your stack, including front-end design, user input handling, API interactions, and basic CRUD operations on the back-end. Candidates are expected to complete as much of the task as they can within the given time frame.