**KANBAN BOARD PROJECT**

Backend (Node.js + Express + MongoDB)

Controller : BoardController

* Handles all logic for managing boards.
* File route: /server/controllers/boardController.js

Methods:

1- Create a new Board:

* API route : POST /boards
* Creates a new board with a unique boardId and an associated task board.
* Returns the board data.
* Error Handling : If boardId already exists, returns 400 bad request.

2- Retrieve a Board by ID:

* API route: GET /boards/:id
* Finds a board by its boardId and returns the task data.
* Error Handling: If no board is found, returns 404 not found.

3- Update a Board by ID:

* API route: PUT /boards/:id
* Finds and updates a board by its boardId and returns the updated board
* Error Handling: If the board does not exist, returns 400 bad request.

Database: MongoDB

* Defines the structure of board model in MongoDB.
* File route: /server/models/Board.js

Server Configuration

* File route: /server/index.js
* Express handles API requests.
* MongoDB connected.
* CORS is enabled.

Frontend (React + Vite)

Components

File route: /client/src/components

1- Add Task

- Takes color, text, title, and category as inputs.

- Creates a new task with an unique id and these inputs.

- Updates the board.

2- Create Board

* The initial screen of the UI.
* Takes an input board name and creates a new board based on this name.
* If a board with this name already exists, it directly navigates to the main page.

3- Edit Task

* Page for editing a task.
* Title, text, and color of a task can be edited.

4- Task Column

* UI for task containers (backlog, to-do, in-progress, designed)

5- Tasks

* Main screen of the UI.

Services

Board Service

* File route: /client/src/services/boardService.js
* Contains put, get, and post methods to make requests to the backend.

My Journey:

* I started by building the frontend – focusing on the UI, components, and methods. I set up the layout and designed the interactions, like buttons and forms, to make the user experience smooth.
* Once the frontend is completed, I moved on to the backend with Node.js, Express, and MongoDB. I created API routes to handle requests from the frontend, making sure the data was processed, returned , and saved correctly.
* Finally, I connected the frontend and backend. The frontend sends requests to the backend (using methods like get or post), and the backend processes them and sends desired responses.

Note: The name of the board written in the create board page is the unique id of the board. Everybody that knows this name can reach that task board by writing it in the create board screen.