

## Thought Note: To-Do List Application

- This project involves creating a To-Do list application using a combination of backend and frontend technologies. The backend is implemented using Node.js and Express.js, while the frontend is built with React.
- The application allows users to enter tasks through an input box, which are then stored in the node-persist storage. The entered tasks are displayed below in the tasks list section. The storage is initialized with a specified directory for data persistence.
- One interesting aspect of this project is the use of node-persist for storing data. It provides a simple and efficient solution for persisting data on the server-side. The `storage.clear()` function is utilized to delete old data when the application is restarted.
- The frontend component `ToDoForm` handles the input and display of tasks. It consists of an input box where users can enter tasks and a submit button to add them to the list. The `todo` state variable is used to store the value of the input field, and the `setTodo` function is used to update its value.
- On form submission, the `onSubmitHandler` function is triggered. It prevents the default form submission behavior, sends a POST request to the backend API endpoint `/todo`, and clears the input field. Upon receiving a response, it calls the `getTodos` function to fetch and update the list of tasks.
- The `getTodos` function sends a GET request to the backend `/todo` endpoint to retrieve the list of tasks. It updates the `itemList` state variable with the received data. The `useEffect` hook is used to call the `getTodos` function when the component mounts.
- The `useEffect` hook is also used to handle the cleanup process when the component unmounts. It sends a DELETE request to the `/todo` endpoint to clear the storage and delete all existing tasks.
- The rendered JSX elements include a heading for the application, the input box, and an ordered list (`<ol>`) to display the tasks. The `itemList` state variable is mapped over to render individual `ToDoList` components, passing each task as a prop. The `ToDoList` component is responsible for rendering a single task as an `<li>` element.
- Overall, this project combines backend and frontend technologies to create a complete To-Do list application. It demonstrates the use of storage for data persistence and showcases the seamless integration between the frontend and backend components. By completing this project, you'll gain hands-on experience in building a practical application with essential features.