Final Machine Test: Task Management Dashboard with Authentication & Deployment

---

📌 Task Overview

Develop a **Task Management Dashboard** where users can:
✅ Register & Login (API-based Authentication)
✅ View, Add, Edit, and Delete Tasks
✅ Mark tasks as completed
✅ Filter & Sort tasks
✅ Upload the source code to **GitHub**
✅ Deploy the project on **Vercel**

📌 Tech Stack Requirements:

✅ **React.js** (Functional Components with Hooks)
✅ **React Router** (For Navigation)
✅ **State Management**: Redux Toolkit (Recommended) or React Context API
✅ **API Handling**: Axios (Recommended) or Fetch API
✅ **Authentication**: JWT-based login & register
✅ **Styling**: Tailwind CSS, Bootstrap, or Material-UI
✅ **Form Validation**: React Hook Form + Yup
✅ **Deployment**: GitHub & Vercel

🔗 API Endpoints

1️⃣ Authentication API (Use reqres.in)

Action	Method	Endpoint	Request Body	Response
Register	POST	https://reqres.in/api/register	{ "email": "test@billerq.com", "password": "123456" }	{ "id": 4, "token": "QpwL5tke4Pnpja7X" }
Login	POST	https://reqres.in/api/login	{ "email": "test@billerq.com", "password": "123456" }	{ "token": "QpwL5tke4Pnpja7X" }
Get User	GET	https://reqres.in/api/users/2	–	{ "data": { "id": 2, "email":

				"test@billerq.com", "first_name": "John" }}
Logout	POST	(Client-side only, remove token from localStorage)	-	-

---

2️⃣ Task Management API (Use [JSONPlaceholder](#))

Action	Method	Endpoint	Request Body	Response
Get All Tasks	GET	https://jsonplaceholder.typicode.com/todos	-	[{ "id": 1, "title": "Task 1", "completed": false }]
Get Task by ID	GET	https://jsonplaceholder.typicode.com/todos/{id}	-	{ "id": 1, "title": "Task 1", "completed": false }
Add Task	POST	https://jsonplaceholder.typicode.com/todos	{ "title": "New Task", "completed": false }	{ "id": 201, "title": "New Task", "completed": false }
Edit Task	PUT	https://jsonplaceholder.typicode.com/todos/{id}	{ "title": "Updated Task", "completed": true }	{ "id": 1, "title": "Updated Task", "completed": true }
Delete Task	DELETE	https://jsonplaceholder.typicode.com/todos/{id}	-	{}

🛠 Features to Implement

1   User Authentication

- **Login & Register** (JWT stored in localStorage)
- **Protect routes** (Redirect to login if not authenticated)
- **Logout feature** (Clear token from localStorage)

2   Task Dashboard

- **List tasks** (title, status, due date)
- **Filter tasks** (All, Completed, Pending)
- **Sort tasks** by due date

3   Add/Edit Task

- **Form with fields:** title, due date, status

- Validate required fields
- Submit form to API (POST /todos)

4   Mark as Completed

- Add a toggle button to change status

5   Delete Task

- Show a **confirmation** before deleting

🔷 Additional Requirements

6   Git & Version Control

- Upload the complete source code to **GitHub**.
- Use **meaningful commit messages** (e.g., feat: implemented task filter).
- Share the GitHub repository link.

7   Deployment on Vercel

- Deploy the project to **Vercel** (https://vercel.com)
- Share the **live Vercel URL**.

📅 Deadline

🕐 **Submission Deadline: Tomorrow at 9 PM** (Your local time)

💡 Bonus Points (Optional)

✅ Use Redux Persist to store authentication state
✅ Implement React Query for optimized API calls
✅ Add Dark Mode Toggle

📌 Submission Requirements:

1. GitHub Repository Link (Public Repo)

2. Vercel Deployment Link
3. Share GitHub & Vercel links before **9 PM tomorrow**

---

4. Please take a screenshot of your project folder in File Explorer (Windows) or Finder (Mac) when you start working and when you finish.
5. Ensure the screenshot includes the current date and time (from the taskbar/system clock).