📘 Homework Management System – Frontend-Only Plan (React + Material UI)

💻 Stack: React + Material UI (MUI)

🟢 Phase 1: UI Setup & Static Components (0–1 Hour)

🎯 Goal:

Create the core UI structure using React and Material UI, including role-based views and dummy assignment data.

✅ Key Deliverables:

- Initialize React project

bash

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npx create-react-app homework-ui

npm install @mui/material @emotion/react @emotion/styled @mui/icons-material

- Setup Material UI Theme
- Role Toggle: Teacher ↔️ Student
    - Use MUI ToggleButton or Tabs

🔧 Components:

1. AssignmentCard
    - Displays:
        - Title (MUI Typography)
        - Subject, Type
        - Due Date (MUI Chip)
        - Status badge (MUI Chip with color)
        - Use Paper or Card from MUI
2. AssignmentList View
    - Rendered conditionally based on user role
    - Static dummy assignment array

🟡 Phase 2: Add Assignment Form (1–2 Hours)

🎯 Goal:

Enable Teachers to add new assignments to the list using React state.

✅ Key Deliverables:

- AssignmentForm using Material UI components:
    - TextField – Title, Subject
    - Select – Type (Homework, Project, Quiz)
    - DatePicker – Due Date (from MUI X or native input type="date")
    - Button – Submit form
- On Submit:
    - Push to local React useState array
    - Display in the assignment list immediately

✨ UX Features:

- Basic validation with MUI FormHelperText
- Snackbar or Alert on success

🟣 Phase 3: Filter & Sort (2–3 Hours)

🎯 Goal:

Allow users to filter and sort assignments in the Student view.

✅ Key Deliverables:

- Filter Controls (using MUI Select and FormControl):
    - Subject
    - Type
    - Status
- Sort Options (MUI Button Group or Select):

    - Due Date (Newest → Oldest or vice versa)
- Logic is handled fully in React state, with Array.filter() and Array.sort()

🧪 Final Touches

- Responsive layout with MUI's Grid or Stack
- Icons for clarity (@mui/icons-material)
- Clean visual consistency using Box and ThemeProvider