Week-Wise Project Task Plan (React + Express/NestJS + API Consumption)

Project Type: Frontend (React) + Backend (Express/NestJS)

Project Definitions: 10 (Student must choose any ONE)

Frontend Phase – React (2 Weeks)

Week 1 – React Project Setup & Component Design
- Create React project
- Setup folder structure
- Create components:
  - List
  - Add Form
  - Edit
  - Header / Navbar
- Setup routing using React Router
- Use dummy assume static data

Output:
React project running
Components created
Routing working

Week 2 – React UI Completion & State Management
- Complete UI for all screens
- Use useState and useEffect hooks
- Implement controlled forms
- Conditional rendering
- Prepare UI ready for backend integration

Output:
Complete React UI
Forms and tables working

Backend Phase – Express APIs (5 Weeks)

Week 3 – Backend Setup & GET APIs
- Initialize Node & Express project
- Create Express server
- Setup routes
- Implement GET APIs (all records & by id)
- Test APIs using Postman

Output:
Server running
GET APIs working

Week 4 – POST APIs (Create Operations)
- Implement POST APIs
- Accept request body
- Validate data
- Send JSON response

Output:
POST APIs tested and working

Week 5 – PUT / PATCH APIs (Update Operations)
- Implement update APIs
- Update record by ID
- Handle invalid data

Output:
Update APIs working

Week 6 – DELETE APIs & Error Handling
- Implement DELETE APIs
- Handle record not found
- Improve error handling
- Organize route structure

Output:
DELETE APIs working
Proper error handling

Week 7 – API Testing & Backend Freeze
- Test full API flow (CRUD)
- Refactor code
- Freeze backend for integration

Output:
Fully tested backend

API Consumption Phase – React Integration (2 Weeks)

Week 8 – React + API Integration (GET & POST)
- Connect React with backend APIs
- Consume GET APIs (display data)
- Consume POST APIs (add data)
- Handle loading & errors

Output:
Dynamic data from API
Data creation via UI

Week 9 – Full CRUD Integration & Final Testing
- Integrate UPDATE & DELETE APIs
- Add edit & delete features
- Final testing & bug fixes

Output:
Fully integrated React + Express application

Final Submission

- React frontend source code
- Express backend source code
- Working integrated application

Note:
- No project report required
- Evaluation will be based on demo & viva