📚 MERN Stack Teaching Plan

🧠 Class 1 — JS Essentials + Setup

Goal: Strong base

- ES6 (arrow functions, destructuring, spread)
- Async JS (promises, async/await)
- Fetch basics
- Setup Node + VS Code + npm

⚛️ FRONTEND (React)

🎯 Class 2 — React Introduction + Tailwind Setup

- What is React? SPA concept
- Create React App / Vite
- JSX
- Components (functional)
- Navbar UI

🎯 Class 3 — Props & State

- Props
- useState
- Event handling
- Simple interactive UI

👉 Mini Task: Counter / Toggle App

🎯 Class 4 — Hooks Deep Dive

- useEffect
- Lifecycle understanding
- Rendering lists
- Conditional rendering

🎯 Class 5 — Forms + API Integration

- Controlled components
- Form handling
- Fetch / Axios
- Display API data

👉 Use free API (no backend yet)

🎯 Class 6 — React Routing + Intro Redux

- React Router
- Prop Drilling
- Intro to Redux Toolkit

🎯 Class 7 — Redux Toolkit (Practical)

- Store
- Slice
- useSelector / useDispatch
- Small example (cart / counter)

⚙️ BACKEND (Node + Express)

🚀 Class 8 — Node + Express Basics

- Node intro
- Express server
- Routes (GET, POST)
- Middleware

📦 Class 9 — REST APIs

- CRUD APIs
- Params, query, body
- Postman testing

🗄️ Class 10 — MongoDB + Mongoose + Authentication

- MongoDB basics
- Schema & Model
- CRUD with DB
- JWT
- Login/Register
- Password hashing (bcrypt)
- Protected routes

🛠️ Class 11 — Full Stack Integration

- Connect React(frontend) with backend
- Axios calls
- CORS handling
- Folder structure

🧩 Class 12 — Project + Deployment

- Final project completion
- Deployment:
    - Frontend → Vercel
    - Backend → Render
- Demo + polishing