5-week mentoring plan for a junior MERN developer

#### **Week 1: Foundations & Setup**

**Goal:** Get environment ready and revise core concepts

* Brush up: HTML, CSS, ES6+ JavaScript
* Install: Node.js, MongoDB, VSCode, Git
* Intro to Git & GitHub workflow (branching, PRs)
* Create first Express “Hello World” server
* Mini task: Personal portfolio (static)

#### **Week 2: Backend with Node.js + Express**

**Goal:** Build and test REST APIs

* Express routes, controllers, middleware
* CRUD operations with mock data
* Error handling, status codes, logging
* Postman for testing
* Mini project: “Todo API” (no DB yet)

#### **Week 3: MongoDB + Auth (JWT)**

**Goal:** Add database and authentication

* MongoDB + Mongoose basics (schema, model, CRUD)
* Connect Express backend to MongoDB
* User registration & login with JWT
* Protect routes using middleware
* Mini project: “Notes API” with user auth

#### **Week 4: React + File Upload**

**Goal:** Build frontend and integrate backend

* React basics: components, state, hooks
* Fetch APIs (GET/POST/DELETE)
* Forms & validation
* File upload + React form
* Mini project: “Profile Manager” (upload avatar + user info)

#### **Week 5: Full-Stack Integration + AWS Basics + Deployment**

**Goal:** Complete and deploy a full MERN app

* Integrate frontend + backend + MongoDB
* Optional: Use AWS S3 for image/file uploads
* Learn AWS basics: S3, EC2, IAM overview
* Add environment variables & secure configs
* Final project: “Task Manager” full MERN app (with auth & uploads)
* Code review + feedback session

#### **Optional Week 6: AI Integration & Cursor AI**

**Goal:** Introduce AI tools for productivity and app enhancement

* **Cursor AI:** Learn basics of AI-powered code completion & suggestions
* How to call AI APIs from Node/React (text completion, image generation)
* Mini project: Integrate a simple AI feature in MERN app (chatbot or content generator)