# Full Backend Setup – Step-by-Step Commands (SlotSwapper)

## 1. Initialize Backend Project

- mkdir slotswapper-backend

- cd slotswapper-backend

- npm init -y

- npm install express mongoose jsonwebtoken bcryptjs cors dotenv

- npm install --save-dev nodemon

- Create folder structure:

- mkdir src

- mkdir src/models src/routes src/controllers src/middleware

## 2. Create Server (index.js)

- touch src/index.js

## 3. Connect MongoDB

- Install MongoDB or create cluster on MongoDB Atlas

- Use connection string inside .env:

- MONGO\_URI=your\_connection\_string

- PORT=5000

- JWT\_SECRET=your\_jwt\_secret

## 4. Create User Model

- touch src/models/User.js

## 5. Authentication APIs

- touch src/routes/authRoutes.js

- touch src/controllers/authController.js

- APIs to create:

- POST /api/auth/signup

- POST /api/auth/login

## 6. JWT Middleware

- touch src/middleware/authMiddleware.js

- Checks token for protected routes

## 7. Event Model + CRUD

- touch src/models/Event.js

- touch src/routes/eventRoutes.js

- touch src/controllers/eventController.js

- APIs to create:

- POST /api/events

- GET /api/events

- PUT /api/events/:id

- DELETE /api/events/:id

## 8. Swap Logic Backend

- touch src/models/SwapRequest.js

- touch src/routes/swapRoutes.js

- touch src/controllers/swapController.js

- APIs to create:

- GET /api/swappable-slots

- POST /api/swap-request

- POST /api/swap-response/:id

## 9. Run Backend Server

- Update package.json:

- "scripts": { "start": "node src/index.js", "dev": "nodemon src/index.js" }

- Run:

- npm run dev