

Entri Elevate – Full Stack Development



Module: Backend

Assignment: 12

Assignment: Simple Inventory Management System

Total Marks: 10

Objective: Learn to build a backend with ExpressJS, use middleware, connect to MongoDB using Mongoose, and test APIs using Postman.

Submission Format:

- Upload the full project to GitHub
- Include a `README.md` explaining steps and endpoints
- Postman collection (or screenshots of API tests)

♦ Part 1: ExpressJS Routes & Middleware (3 Marks)

Create an ExpressJS backend for a basic inventory system.

Tasks:

1. Set up a server running on port 3000.
2. Create the following routes:
 - `GET /` → returns "Inventory API is Running"
 - `GET /health` → returns server status message
3. Add middleware to:

- Log request method and URL
- Handle 404 errors with a JSON message

Part 2: MongoDB + Mongoose Setup (4 Marks)

Tasks:

1. Connect to MongoDB (Atlas or Compass) using Mongoose.
2. Create a model called `Item` with this schema:
 - `name` (String)
 - `quantity` (Number)
 - `price` (Number)
3. Implement the following APIs:
 - `POST /items` → Add a new item
 - `GET /items` → List all items

◆ Part 3: Testing with Postman (3 Marks)

Tasks:

1. Test all routes (`GET`, `POST`, and others if added) using Postman
2. Submit either:
 - Screenshots of successful requests/responses
 - OR Exported Postman collection uploaded to GitHub

