Learning Materials

- **MIDDLEWARE**

Middleware in general = waiters that handle many tasks:

- One reads paper orders (body-parser).

- One brings water and napkins (express.static).

- One organizes recipes (view engine).

- **MULTER**

Multer = the waiter who takes care of special orders like "the customer brought their own ingredients" (uploaded files). He takes the ingredient, labels it, and stores it in the fridge (uploads folder) before the chef (your route) uses it.

Multer = Middleware for file uploads.
Middleware = General term for all these "helper steps" in Express.

- **REQ.BODY AND REQ.FILE**

the data package that gets delivered when the form is submitted.
They're like two different bags:
- One bag for text info.
- One bag for file info.

- **APP.POST**
- It doesn't directly talk to MySQL. it just calls the query to do the real save
- Chef → takes the delivery info (text + file path) and writes it into the "menu book" (database).

- **DATABASE QUERY**

- More specifically: it's the **INSERT part of CRUD** (Create, Read, Update, Delete).

- `db.query(...)` is how Node.js talks to MySQL.

- **DB.QUERY ("**select * from products**")**

- This is a **Database Query** again, but this time it's **SELECT** (read), not **INSERT**.
- It tells MySQL:

FLASH CARDS

Middleware (general)

➢ "Middleware is a helper that runs before routes to prepare things like forms, JSON, or static files."

body-parser (a type of middleware)

➢ "body-parser turns form input into req.body so the server can read it."

express.json (a type of middleware)

➢ "express.json turns JSON input into req.body so the server can read it."

express.static (a type of middleware)

➢ "express.static makes files in the public folder (CSS, images, JS) visible on the website."

Multer (special middleware)

➢ "Multer handles file uploads: saves them to public/uploads and gives info in req.file."

app.post = form handler (saves text + image path into database).
➢ "app.post("/add-product") handles the form submission: it saves the text from req.body and the uploaded file from req.file."

db.query:
➢ *"The database worker — runs the SQL command and inserts data into MySQL."*

app.get
➢ *"This route is the **Read** part of CRUD. It fetches all the saved products and renders them into the products page for users to see."*

Routes
➢ *"Routes map a browser URL (like /about) to an EJS template (like views/about.ejs). Without them, pages won't open."*