

**CODE :**

```
from fastapi import FastAPI, HTTPException, Request
from fastapi.middleware.cors import CORSMiddleware
from mangum import Mangum
import random

app = FastAPI(title="E-Commerce API", version="1.0")

#   Add CORS middleware before any routes
app.add_middleware(
    CORSMiddleware,
    allow_origins=["*"],
    allow_credentials=True,
    allow_methods=["*"],
    allow_headers=["*"],
)

# --- API endpoint: E-Commerce ---
@app.post("/discount_vendor_info")
async def add_to_cart(request: Request):
    try:
        data = await request.json()
        print("    Received data:", data)

        # Expecting { "product_id": 1, "name": "Product Name", "price": 499 }
        product_id = data.get("product_id")
        name = data.get("name")
        price = data.get("price")

        if not all([product_id, name, price]):
            raise HTTPException(status_code=400, detail="Missing product details")

        # Simulate discount and vendor
        discount = random.choice([0, 5, 10, 15, 20])
        vendor = random.choice(["TechWorld", "ShopEase", "ElectroMart", "MegaDeals"])

        if discount > 0:
            message = f"{discount}% discount available from {vendor} for {name}."
        else:
            message = f"No current discounts for {name}."

    except Exception as e:
        print(f"An error occurred: {e}")
        raise HTTPException(status_code=500, detail="Internal Server Error")
```

```
return {"message": message}

except Exception as e:
    raise HTTPException(status_code=500, detail=f"Processing failed: {str(e)}")
```

```
# --- AWS Lambda handler ---
lambda_handler = Mangum(app)
```

#for requirement.txt

```
#core FastAPI app
fastAPI
mangum
uvicorn
```

## API :

The screenshot shows a browser window with the title "E-Commerce API" and "OAS 3.1". The main content area displays a POST method for "/discount\_vendor\_info" with the description "Add To Cart". The "Parameters" section indicates "No parameters". Below it, there are "Responses" and "Request URL" sections. The "Request URL" field contains the URL "http://127.0.0.1:8000/discount\_vendor\_info". The "Server response" section shows an error code 500 with the message "Error: Internal Server Error". The "Response body" field displays the JSON object: {"detail": "Processing failed: Expecting value: line 1 column 1 (char 0)"}. The "Response headers" field shows the following headers: access-control-allow-credentials: true, access-control-allow-origin: \*, content-length: 73.

## O/P :

A screenshot of the Visual Studio Code (VS Code) interface. The title bar shows "Nov 7 10:59 AM". The left sidebar has icons for various tools like File Explorer, Search, and Terminal. The main area shows an "EXPLORER" view with a folder named "PYTHONAPI" containing files like "Ecommerce\_API.py" and "requirements.txt". The "TERMINAL" tab is active, displaying a terminal session:

```
(base) matlab@sjt318scope048:~/pythonapi$ curl -X 'POST' \
'http://127.0.0.1:8000/discount_vendor_info' \
-H 'accept: application/json' \
-d '{ "product_id": 1, "name": "Product Name", "price": 499 }'
{"message": "10% discount available from ElectroMart for Product Name."}(base) matlab@sjt318scope048:~/pythonapi$
```

The status bar at the bottom shows "In 21, Col 36 Spaces:4 UTF-8 (Python)" and "Signed out 3.10.12". A "CHAT" tab is also visible in the top right.

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The screenshot shows the Visual Studio Code interface with the following details:

- File Explorer:** Shows a project structure for "PYTHONAPI" containing ".pycache\_/", "Dockerfile", "Ecommerce\_API.py", and "requirements.txt".
- Dockerfile Content:**

```
FROM public.ecr.aws/lambda/python:3.11
WORKDIR /var/task
# Install system tools
RUN yum install -y gcc make rust cargo && \
    python3.11 -m pip install --upgrade pip setuptools wheel
# Copy requirements and install them directly
COPY requirements.txt .
RUN python3.11 -m pip install --no-cache-dir -r requirements.txt
# Copy application code
COPY .
# Lambda entrypoint
CMD ["ECommerce_API.lambda_handler"]
```
- Terminal Output:**

```
(base) matlab@jt318scope048:~/pythonapi$ docker build -t ecommerce api .
ERROR: permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Head "h
http://%2Fvar%2Frun%2Fdocker.sock/_ping": dial unix /var/run/docker.sock: connect: permission denied
(base) matlab@jt318scope048:~/pythonapi$ sudo docker build -t ecommerce_api
[sudo] password for matlab:
ERROR: docker: 'docker buildx build' requires 1 argument
Usage: docker buildx build [OPTIONS] PATH | URL | -
Run 'docker buildx build --help' for more information
(base) matlab@jt318scope048:~/pythonapi$ sudo docker build -t Ecommerce_API
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Usage: docker buildx build [OPTIONS] PATH | URL | -
Run 'docker buildx build --help' for more information
(base) matlab@jt318scope048:~/pythonapi$ sudo docker build -t Ecommerce_API
ERROR: Cannot connect to the Docker daemon at unix:///var/run/docker.sock. Is the docker daemon running?
(base) matlab@jt318scope048:~/pythonapi$ ^[[200-sudo systemctl status docker
^[[201-sudo: command not found
(base) matlab@jt318scope048:~/pythonapi$ sudo systemctl status docker
Unit docker.service could not be found.
(base) matlab@jt318scope048:~/pythonapi$
```
- Bottom Status Bar:** Shows "In 17 Col 37 Spaces:4 UFT-8 ⌘L Docker ⌘Signed off"

