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PYTHON LAST LAB

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}."
```

```
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 web browser window with the Swagger UI for an E-Commerce API. The browser's address bar shows the URL `127.0.0.1:8000/docs#/default`. The Swagger UI title is "E-Commerce API 1.0 OAS 3.1". The selected endpoint is `POST /discount_vendor_info` with the description "Add To Cart". The "Parameters" section shows "No parameters". The "Responses" section shows a 500 status code with the message "Error: Internal Server Error". The response body is displayed in a dark box with the JSON:

```
{  "detail": "Processing failed: Expecting value: line 1 column 1 (char 0)"}
```

. The response headers are: `access-control-allow-credentials: true`, `access-control-allow-origin: *`, and `content-length: 73`. A "Download" button is visible next to the response body.

O/P :

The screenshot shows the Visual Studio Code (VS Code) interface. The Explorer pane on the left shows a project named 'PYTHONAPI' with files: 'Ecommerce_API.py' and 'requirements.txt'. The main editor displays the code in 'Ecommerce_API.py':

```
1 from fastapi import FastAPI, HTTPException, Request
2 from fastapi.middleware.cors import CORSMiddleware
3 from mangum import Mangum
4 import random
5
6 app = FastAPI(title="E-Commerce API", version="1.0")
7
8 # Add CORS middleware before any routes
9 app.add_middleware(
10     CORSMiddleware,
11     allow_origins=["*"],
12     allow_credentials=True,
13     allow_methods=["*"],
14     allow_headers=["*"],
15 )
16
17 # --- API endpoint: E-Commerce ---
18 @app.post("/discount_vendor_info")
19 async def add_to_cart(request: Request):
```

The TERMINAL pane at the bottom shows the command prompt output:

```
(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$
```

On the right side, there is a 'CHAT' pane with the text 'Ask about your code' and a button 'Generate Agent Instructions to onboard AI onto your codebase.' Below this, there is a small 'Ecommerce_API.py' pane with the text 'Add context (#), extensions (@), commands' and a button 'Ask'.

This is a close-up screenshot of the terminal output from the previous image. It shows the same command and output:

```
(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$
```



