

Output for Bazar.com: A Multi-tier Online Book Store

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Curl command:

Search:

curl <http://localhost:5000/search/distributed%20systems>

```
C:\Users\Msys\pro\venv>curl http://localhost:5000/search/distributed%20systems
{
  "Items": [
    {
      "cost": 70,
      "stock": 10,
      "title": "How to get a good grade in DOS in 40 minutes a day",
      "topic": "distributed systems"
    },
    {
      "cost": 80,
      "stock": 5,
      "title": "RPCs for Noobs",
      "topic": "distributed systems"
    }
  ]
}
```

C:\Users\Msys\pro\venv>

Info:

curl <http://localhost:5000/info/1>

```
C:\Users\Msys\pro\venv>curl http://localhost:5000/info/1
{
  "cost": 70,
  "stock": 10,
  "title": "How to get a good grade in DOS in 40 minutes a day",
  "topic": "distributed systems"
}
```

curl <http://localhost:5001/query-by-item/4>

```
C:\Users\Msys\pro\venv>curl http://localhost:5001/query-by-item/4
{
  "cost": 60,
  "stock": 18,
  "title": "Cooking for the Impatient Undergrad",
  "topic": "undergraduate school"
}
```

curl [http://localhost:5001/query-by-subject/distributed systems](http://localhost:5001/query-by-subject/distributed%20systems)

```
C:\Users\Msys\pro\venv>curl http://localhost:5001/query-by-subject/distributed systems
{
  "items": [
    {
      "cost": 70,
      "stock": 10,
      "title": "How to get a good grade in DOS in 40 minutes a day",
      "topic": "distributed systems"
    },
    {
      "cost": 80,
      "stock": 5,
      "title": "RPCs for Noobs",
      "topic": "distributed systems"
    }
  ]
}
```

Update cost or stock:

- Update stock:

curl -X PUT -H "Content-Type: application/json" -d '{"stock": 5}'
<http://localhost:5001/update/1>

```
C:\Users\Msys\pro\venv\catalog>curl -X PUT -H "Content-Type: application/json" -d '{"stock": 5}' http://localhost:5001/update/1
{
  "Message": "Updated Successful"
}
```

- Update cost :

curl -X PUT -H "Content-Type: application/json" -d '{"cost": 2}'
<http://localhost:5001/update/1>

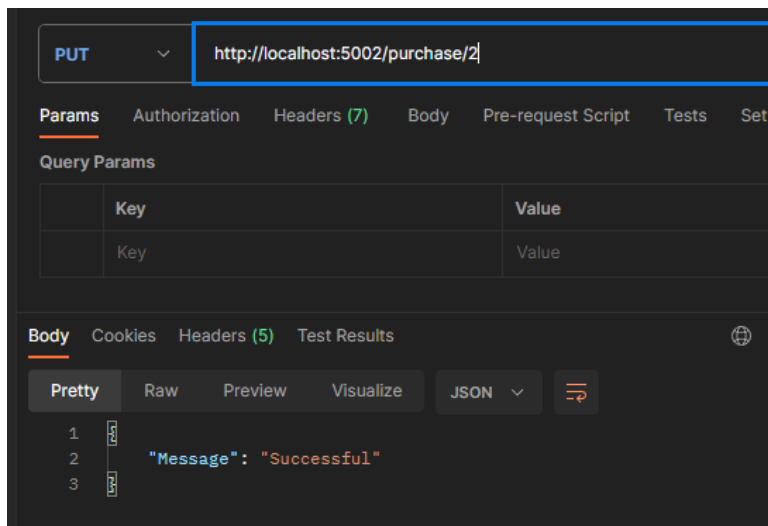
```
C:\Users\Msys\pro\venv> curl -X PUT -H "Content-Type: application/json" -d '{"cost": 2}' http://localhost:5001/update/1
{
  "Message": "Updated Successful"
}
C:\Users\Msys\pro\venv>
```

Purchase:

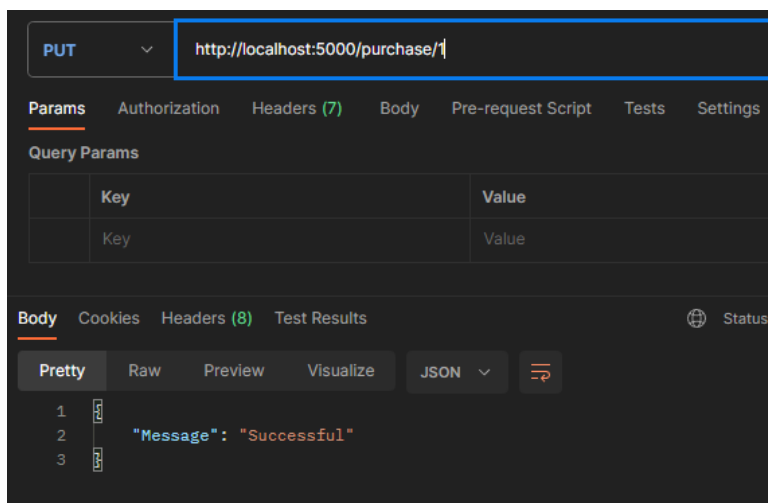
```
C:\Users\Msys\pro\venv>curl -X PUT http://localhost:5002/purchase/1
{"Message": "Successful"}
```

From order server:

PUT: http://localhost:5002/purchase/item_number

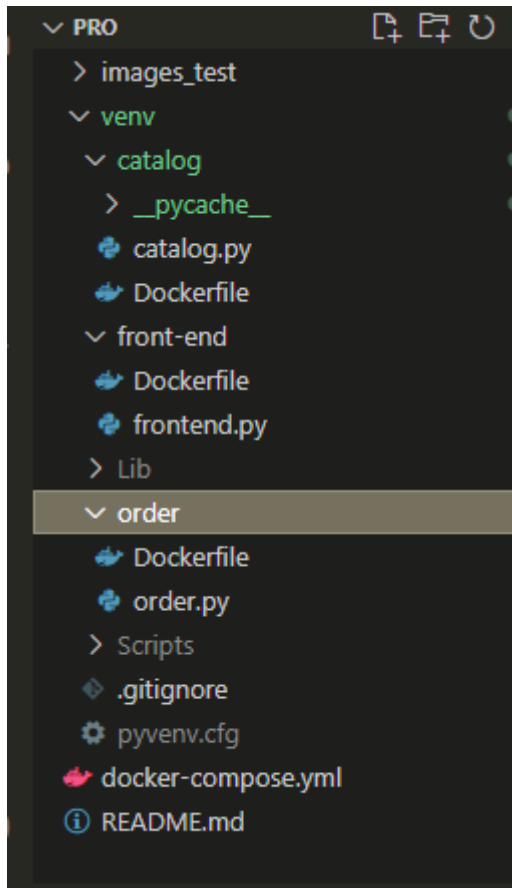


From frontend server:



Docker:

We created a Docker file for each server



Build docker:

```
Windows PowerShell
PS C:\Users\Msys\pro\venv\catalog> docker build -t prodos_python .
[+] Building 164.9s (11/11) FINISHED
=> [internal] load .dockerignore                                0.0s
=> => transferring context: 2B                                  0.0s
=> [internal] load build definition from Dockerfile             0.0s
=> => transferring dockerfile: 399B                             0.0s
=> [internal] load metadata for docker.io/library/ubuntu:latest 0.0s
=> [1/6] FROM docker.io/library/ubuntu:latest                  0.0s
=> [internal] load build context                                0.0s
=> => transferring context: 32B                                  0.0s
=> CACHED [2/6] WORKDIR /home/catalog                          0.0s
=> CACHED [3/6] RUN apt-get update -y                          0.0s
=> [4/6] RUN apt-get install -y python3 python3-pip nano gcc    155.6s
=> [5/6] RUN pip3 install flask requests                       6.3s
=> [6/6] COPY catalog.py ./                                    0.0s
=> exporting to image                                           2.8s
=> => exporting layers                                           2.8s
=> => writing image sha256:a9f23b5e43cc43c68f6cd3eefd813b466ee5c83e57ae23f9eb2896336dadd9de 0.0s
=> => naming to docker.io/library/prodos_python                 0.0s

What's Next?
View a summary of image vulnerabilities and recommendations → docker scout quickview
PS C:\Users\Msys\pro\venv\catalog> docker images
REPOSITORY          TAG         IMAGE ID      CREATED        SIZE
prodos_python        latest      a9f23b5e43cc 10 seconds ago 480MB
myubuntu/ubuntu-gcc-nano latest      3bcb7207a3d0 2 hours ago    294MB
nginx                latest      c20060033e06 2 weeks ago    187MB
ubuntu               latest      e4c58958181a 6 weeks ago    77.8MB
hello-world          latest      9c7a54a9a43c 6 months ago   13.3kB
PS C:\Users\Msys\pro\venv\catalog>
```

Frontend server on command:

```
* Serving Flask app 'frontend'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 979-579-681
127.0.0.1 - - [20/Nov/2023 19:06:41] "GET /info/1 HTTP/1.1" 200 -
127.0.0.1 - - [20/Nov/2023 19:07:24] "GET /search/%20undergraduate%20school HTTP/1.1" 200 -
127.0.0.1 - - [20/Nov/2023 19:07:31] "GET /search/undergraduate%20school HTTP/1.1" 200 -
* Detected change in 'C:\\Users\\Msys\\pro\\venv\\front-end\\frontend.py', reloading
* Restarting with stat
* Debugger is active!
* Debugger PIN: 979-579-681
```

