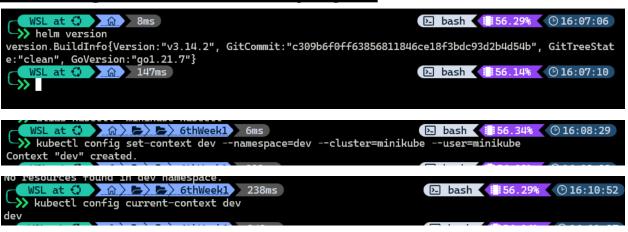
NOTE: I'm using wsl, so all commands are coming from there.

```
[+] Building 47.4s (10/10) FINISHED
                                        docker:default
⇒ [internal] load build definition from Dockerfil 0.0s
\Rightarrow \Rightarrow transferring dockerfile: 851B
⇒ [internal] load metadata for docker.io/library/ 1.5s
                                                    0.0s
                                                    0.0s
⇒ [1/5] FROM docker.io/library/python:3.10.13-sli
⇒ ⇒ resolve docker.io/library/python:3.10.13-sli
                                                    0.0s
⇒ ⇒ sha256:0dcc72b084101a33fe3 11.54MB / 11.54MB
                                                   0.8s
⇒ ⇒ sha256:e89739e9b11753ace3371 1.65kB / 1.65kB
                                                   0.05
\Rightarrow \Rightarrow sha256:b1c82dbf6dfb5e52cf8f5 1.37kB / 1.37kB
\Rightarrow \Rightarrow sha256:805d120380098ca45f3c2 6.94kB / 6.94kB
⇒ ⇒ sha256:c0edef2937fa3b888b0 31.42MB / 31.42MB
⇒ ⇒ sha256:29ff364e54a5ec5ba946a 1.08MB / 1.08MB
⇒ ⇒ sha256:98fabd49bfb4678fc604c6194 245B / 245B
\Rightarrow \Rightarrow \text{sha256:f2775f7801236b1500145 3.37MB } / 3.37MB
\Rightarrow extracting sha256:29ff364e54a5ec5ba946a5f20c
\Rightarrow extracting sha256:98fabd49bfb4678fc604c6194b 0.0s
                                                    0.0s
                                                    0.0s
                                                    0.3s
⇒ [3/5] COPY main.py /app
                                                    0.1s
⇒ [4/5] RUN apt-get update
                                                   27.6s
⇒ [5/5] RUN pip install fastapi pylint black iso
                                                   11.8s
⇒ exporting to image
                                                    2.1s
⇒ ⇒ writing image sha256:16ef7e50acf1c025a77404a 0.0s
\Rightarrow \Rightarrow naming to docker.io/merxxaz/python-app:v2.0.
```

```
>>> docker image ls
REPOSITORY
                           TAG
                                     IMAGE ID
                                                   CREATED
                                                                  SIZE
merxxaz/python-app
                           v2.0.0
                                     16ef7e50acf1
                                                                  709MB
                                                   6 seconds ago
myjenkins-blueocean
                           2.440.1-1
                                     4da51c0a7e2e
                                                   13 days ago
                                                                  774MB
                           v1.0.0
                                                                  774MB
merxxaz/python-app
                                     4da51c0a7e2e
                                                   13 days ago
gitea/gitea
                          1.21.7
                                     a09084c8eac7
                                                   3 weeks ago
                                                                  160MB
gcr.io/k8s-minikube/kicbase
                                     dbc648475405
                          v0.0.42
                                                   4 months ago
                                                                 1.2GB
  WSL at () ♠ ♠ ♠ 6thWeek 19ms ▶ bash (132.32% ♦ env 3.10.12 🕑 14:42:27
docker push merxxaz/python-app:v2.0.0
The push refers to repository [docker.io/merxxaz/python-app]
24525b7e342c: Pushed
16717fe3319a: Pushed
fc149e3f6f1d: Pushed
1c544af245a1: Pushed
db2ef8a8a54e: Mounted from library/python
5c7b138ff6a8: Mounted from library/python
fa052c8ec46b: Mounted from library/python
3ddd373c9e01: Mounted from library/python
3c8879ab2cf2: Mounted from library/python
v2.0.0: digest: sha256:64deb4677bc02182f9ba0f67a8cabcbcdc856b5072a9d300854a0600750f9a73 size: 2209
```

```
:43:47
>>> git add . && git commit -m "Brayan(W6): Creating repo" && git remote add origin http://localhost:
3000/BrayanMarin/Week6Helm.git && git push -u origin main
[main (root-commit) fb7acca] Brayan(W6): Creating repo
3768 files changed, 585354 insertions(+) create mode 100644 Dockerfile
 create mode 100644 Jenkins/Dockerfile
 create mode 100755 Jenkins/Jenkinsfile
 create mode 100755 Jenkins/compose/.gitea/git/.ssh/authorized_keys
create mode 100755 Jenkins/compose/.gitea/git/.ssh/environment create mode 100755 Jenkins/compose/.gitea/git/repositories/brayanmarin/week3-jenkins.git/HEAD
 create mode 100755 Jenkins/compose/.gitea/git/repositories/brayanmarin/week3-jenkins.git/config
 create mode 100755 Jenkins/compose/.gitea/git/repositories/brayanmarin/week3-jenkins.git/description
create mode 100755 Jenkins/compose/.gitea/git/repositories/brayanmarin/week3-jenkins.git/git-daemon-e
xport-ok
create mode 100755 Jenkins/compose/.gitea/git/repositories/brayanmarin/week3-jenkins.git/hooks/applyp
atch-msg.sample
create mode 100755 Jenkins/compose/.gitea/git/repositories/brayanmarin/week3-jenkins.git/hooks/commit
-msg.sample
 create mode 100755 Jenkins/compose/.gitea/git/repositories/brayanmarin/week3-jenkins.git/hooks/post-r
create mode 100755 Jenkins/compose/.gitea/qit/repositories/brayanmarin/week3-jenkins.git/hooks/post-r
eceive.d/gitea
create mode 100755 Jenkins/compose/.gitea/git/repositories/brayanmarin/week3-jenkins.git/hooks/post-u
pdate.sample
create mode 100755 Jenkins/compose/ gitea/git/repositories/brayanmarin/week3-jenkins.git/hooks/pre-ap
plypatch.sample
create mode 100755 Jenkins/compose/.gitea/git/repositories/brayanmarin/week3-jenkins.git/hooks/pre-co
mmit.sample
```

Installing Helm to the miniproject



Required files for miniproject

```
pv.yml pv.yml
                                                                             ↔ ⊕ ⊕ □ ×
      kind: PersistentVolume
       name: mongo-pv
        storage: 2Gi
accessModes:
         - ReadWriteOnce
      🔖 path: /data/mongo
                                                                            ⊙ ⊙ ⇒ ⓑ 🏻 × …
 ™ pvc.yml pvc.yml
      kind: PersistentVolumeClaim
       name: mongo-pvc
          - ReadWriteOnce
        resources:
                                                                            €O -○ -> (1) [] × ···
serviceDB.yml serviceDB.yml
     kind: Service
      name: pythonfastapidb
        app: pythonfastapidb
         - port: 27017
         targetPort: 27017
```

```
→ deploymentDB.yml M deploymentDB.yml

      apiVersion: apps/v1
      kind: Deployment
      metadata:
      name: pythonfastapidb
      spec:
          matchLabels:
            app: pythonfastapidb
        template:
          metadata:
            labels:
              app: pythonfastapidb
          spec:
              - name: pythonfastapidb
                image: mongo
                ports:
                 - containerPort: 27017
                volumeMounts:
                  - name: storage
                    mountPath: /data/db
              - name: storage
                persistentVolumeClaim:
                  claimName: mongo-pvc
```

My Dockerfile

```
Dockerfile M Dockerfile/...

You, 2 hours ago | 1 author (You)

FROW python: 3

# Set the working directory

WORKDIR /app

# Copy the current directory contents into the container at /app

# Copy . /app

# Install any needed packages

# RUN pip install fastapi

RUN pip install black

RUN pip install black

RUN pip install isort

RUN pip install uvicorn

RUN pip install wicorn

RUN pip install motor

RUN pip install pydantic

# Make port 8000 available to the world outside this container, and port 27017 for the database EXPOSE 8000

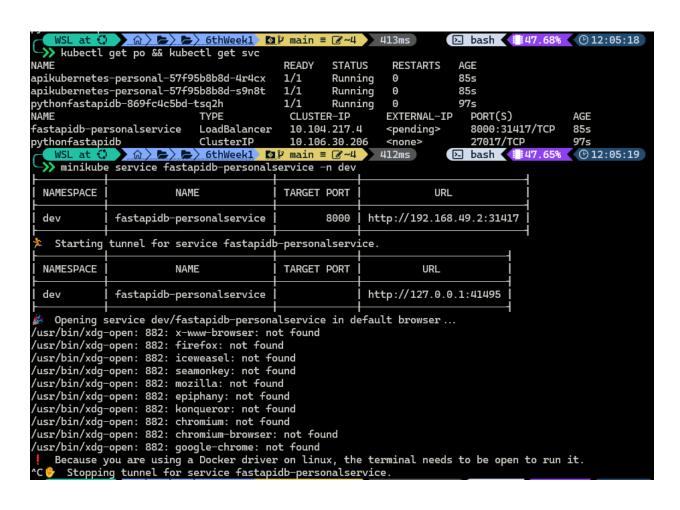
EXPOSE 27017

# Run main.py When the container launches

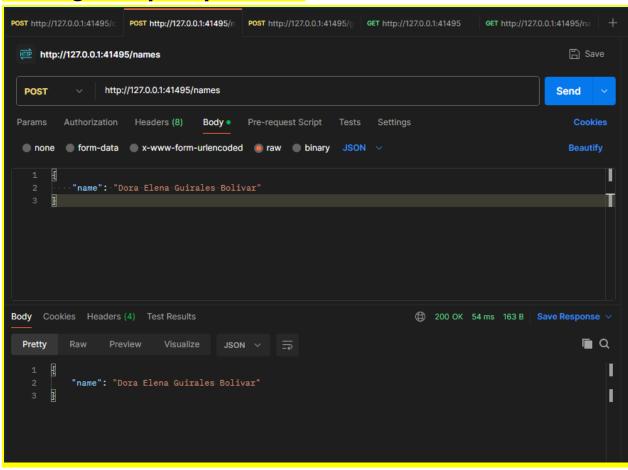
**No uvicorn main:app --host 0.0.0.0 --port 8000
```

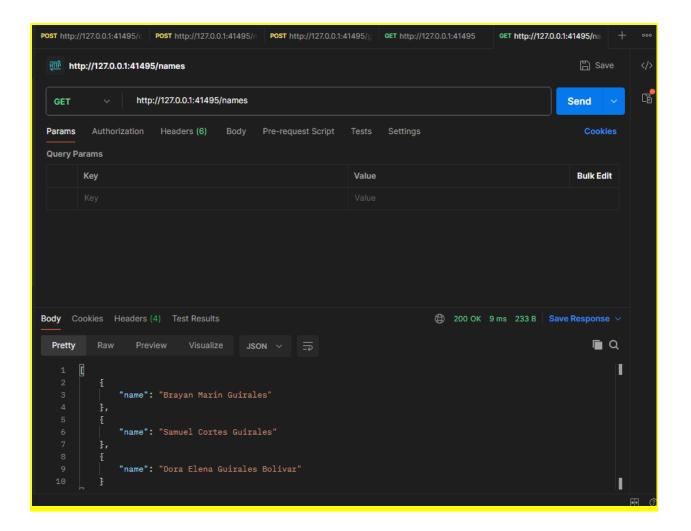
Setting up the files for the kubernetes testing

```
▶ bash ★ 3.86% ★ № 12:03:20
kubectl apply -f pv.yml && kubectl apply -f pvc.yml
persistentvolume/mongo-pv unchanged
persistentvolumeclaim/mongo-pvc unchanged
  >>> kubectl apply -f deploymentDB.yml && kubectl apply -f serviceDB.yml
deployment.apps/pythonfastapidb created
>>> kubectl apply -f deploymentLocal.yml && kubectl apply -f serviceLocal.yml
deployment.apps/apikubernetes-personal created
service/fastapidb-personalservice created
        🕨 😭 🍆 🏲 > 6thWeek1 🔼 🗗 main ≡ 📝 ~4 → 551ms
```



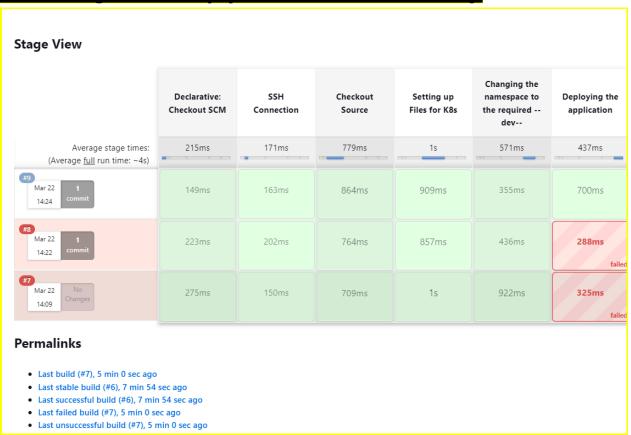
Testing the api in postman



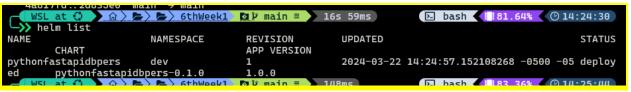


Checking what are in helm before test in pipeline

Checking that the pipeline works correctly

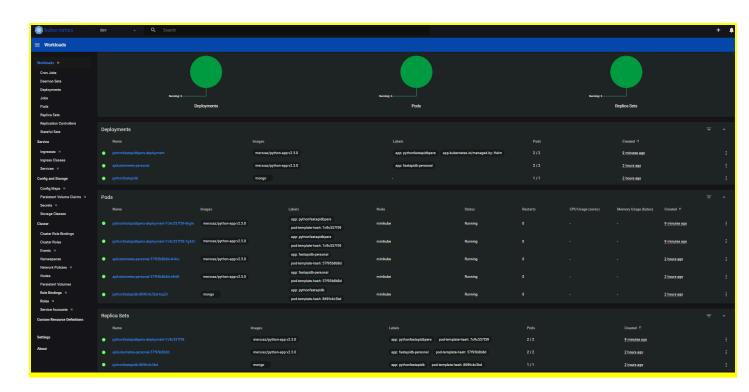


<u>Now, I check again the helm deployment</u>



And see in the minikube dashboard, in the namespace

<u>DEV</u>



Using the linkerd

