

Taller #1 Docker - Cloud Computing

Encargado:

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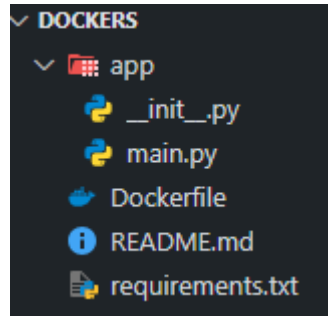
Universidad popular del Cesar

Facultad de ingeniería y tecnológicas

Ingeniería de sistemas

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- Se creo la aplicación FastAPI “hello world” guiandome desde el siguiente link
<https://fastapi.tiangolo.com/deployment/docker/>



- Se construye la imagen con el siguiente comando

```
➤ docker build -t alexanderjrs/fastapi .
[+] Building 1.2s (12/12) FINISHED                                docker:desktop-linux
o => [internal] load build definition from Dockerfile                0.0s
=> => transferring dockerfile: 362B                                0.0s
=> [internal] load metadata for docker.io/library/python:3.9       0.9s
=> [auth] library/python:pull token for registry-1.docker.io       0.0s
=> [internal] load .dockerignore                                   0.0s
=> => transferring context: 2B                                       0.0s
=> [1/6] FROM docker.io/library/python:3.9@sha256:c17c71e1f5f258803a6b7c391f8013adbf84285af54c2a811de4a5a1ac5a8676 0.0s
=> [internal] load build context                                   0.0s
=> => transferring context: 123B                                      0.0s
=> CACHED [2/6] WORKDIR /code                                       0.0s
=> CACHED [3/6] COPY ./requirements.txt /code/requirements.txt      0.0s
=> CACHED [4/6] RUN pip install --no-cache-dir --upgrade -r /code/requirements.txt 0.0s
=> CACHED [5/6] COPY ./app /code/app                                0.0s
=> CACHED [6/6] WORKDIR /code/app                                    0.0s
=> exporting to image                                              0.0s
• => exporting layers                                              0.0s
=> => writing image sha256:dc526f3b6f5add875616dfaf4ca823e3f72be6d68f7d090491a58a530cb98f75 0.0s
=> => naming to docker.io/alexanderjrs/fastapi                     0.0s
```

- Se crea el container y se expone en el puerto 8000

```
➤ docker run -d --name fastapi -p 8000:8000 alexanderjrs/fastapi
87b2d0fc98c88c7f72b71c34c0c6ee6e73e4e9f192c71efca6b4811b2138be50
➤ docker container ls
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                    NAMES
87b2d0fc98c8   alexanderjrs/fastapi  "uvicorn main:app --..." 5 seconds ago Up 5 seconds  0.0.0.0:8000->8000/tcp   fastapi
```

- Se inicia sesión en docker hub desde el cmd y luego se publica la imagen

```
> docker push alexanderjrs/fastapi:latest
The push refers to repository [docker.io/alexanderjrs/fastapi]
o 5f70bf18a086: Mounted from dremio/dremio-oss
  edb34e52b6cb: Pushed
  f710d6f87587: Pushed
  903c15109fa8: Pushed
  3dda89525fe0: Pushed
  60a159600b22: Mounted from library/python
  ee959616fc20: Mounted from library/python
  d0e85779261a: Mounted from library/python
  dafb8aed9f7f: Mounted from library/python
  41d4dc7516bb: Mounted from library/python
  c0f51bbdc37d: Mounted from library/python
  91b542912d12: Mounted from library/python
latest: digest: sha256:4dcf43df897720c4f0a41dadde2016b3e803b6b1fb6c627c1afae231f8b9e94e size: 2834
```

- Se creo el repositorio en github para subir las evidencias

```
> git init
Initialized empty Git repository in C:/Universidad/Dockers/.git/
> git add .
> git commit -m "Taller fastapi"
[master (root-commit) 3dfbd58] Taller fastapi
 5 files changed, 56 insertions(+)
 create mode 100644 Dockerfile
 create mode 100644 README.md
 create mode 100644 app/__init__.py
 create mode 100644 app/main.py
 create mode 100644 requirements.txt
> git branch -M main
> git remote add origin https://github.com/Alexanderjrs/fastapi.git
> git push -u origin main
info: please complete authentication in your browser...
Enumerating objects: 8, done.
Counting objects: 100% (8/8), done.
Delta compression using up to 8 threads
Compressing objects: 100% (7/7), done.
Writing objects: 100% (8/8), 1.21 KiB | 620.00 KiB/s, done.
Total 8 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Alexanderjrs/fastapi.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
```

- Luego se hace la limpieza de imágenes y contenedores que no están en uso

```
> docker container ls
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS
8673db357e9a   alexanderjrs/fastapi:latest         "uvicorn main:app --..." 54 minutes ago Up 54 minutes 0.0.0.0:8000->8000/tcp
fastapi
> docker stop 86
86
> docker rm 86
86
> docker image ls
REPOSITORY          TAG          IMAGE ID          CREATED          SIZE
alexanderjrs/fastapi latest       dc526f3b6f5a     About an hour ago 1.05GB
> docker rmi alexanderjrs/fastapi
Untagged: alexanderjrs/fastapi:latest
Deleted: sha256:dc526f3b6f5add875616dfaf4ca823e3f72be6d68f7d090491a58a530cb98f75
> docker image ls
REPOSITORY          TAG          IMAGE ID          CREATED          SIZE
```