

Problem 5

- Create a volume called `mysql_data`, then deploy a MySQL database called `app-database`. Use the `mysql` latest image, and use the `-e` flag to set `MYSQL_ROOT_PASSWORD` to `P4sSw0rd0!`. Mount the `mysql_data` volume to `/var/lib/mysql`. The container should run in the background.

```
reem@reem-host:~$ docker volume create mysql_data
mysql_data
reem@reem-host:~$ docker run -d \
  --name app-database \
  -e MYSQL_ROOT_PASSWORD='P4sSw0rd0!' \
  -v mysql_data:/var/lib/mysql mysql:latest
Unable to find image 'mysql:latest' locally
latest: Pulling from library/mysql
cea172a6e83b: Pull complete
fa811e9a869e: Pull complete
47a2982daa21: Pull complete
634d7076afe3: Pull complete
aa8a3958f09f: Pull complete
84e4e5ea3754: Pull complete
2275c0ff11a0: Pull complete
2792ea2d4e0e: Pull complete
f488b2cd8494: Pull complete
9451290759df: Pull complete
Digest: sha256:7839322bd6c3174a699586c3ea36314c59b61b4ce01b4146951818b94aef5fd7
Status: Downloaded newer image for mysql:latest
4b3ded43d4572c1dacf00afc7b8ac4957071844de830408e6bc8d1b2adfe750
reem@reem-host:~$ docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
4b3ded43d45	mysql:latest	"docker-entrypoint.s..."	2 minutes ago	Up About a minute	3306/tcp, 33060/tcp
app-database	f7e89929b2ab	"python index.py"	58 minutes ago	Exited (0) 58 minutes ago	
stupefied_gates	b7983e989011	"python index.py"	About an hour ago	Exited (0) About an hour ago	
magical_sammet					

```
reem@reem-host:~$ nano index.py
reem@reem-host:~$ nano Dockerfile
reem@reem-host:~$ docker build -t rr .
[+] Building 14.5s (8/8) FINISHED
=> [internal] load build definition from Dockerfile
=> [internal] load metadata for docker.io/library/python:3.11-alpine
=> [internal] load .dockerignore
=> [internal] load build context
=> [internal] transferring context: 28B
=> [internal] load build context
=> [internal] transferring context: 29B
=> CACHED [2/3] WORKDIR /DII
=> CACHED [3/3] COPY index.py .
=> exporting to image
=> exporting layers
=> writing image sha256:8bd8831d11e0bf30ad36601eabb6c6530b1f301ae47a0b89f269750d76f0c9774
=> naming to docker.io/library/rr
reem@reem-host:~$ docker run rr
Hello world
```