**Diagram

Description automatically generated**

**The Folder structure**

CODE\_LAB\_3 (Outer most folder)

Folder called “db”

>>Dockerfile

Folder called “dba”

>>Dockerfile

Dockerfile

Requirement.txt

cd CODE\_LAB\_3/dba #command for going inside dba

**Go inside dba folder and run the below command in terminal**

# This command builds a docker image called “my\_dba”, you can see the image being created in the docker dashboard image section

docker build -t my\_dba .

#This command creates a network called “my\_network”, you can see the container in docker dashboard container section

docker network create mynetwork

#This command checks the creation of my\_network

docker network ls

# This command creates a container called “mydba”

docker run --name mydba --network mynetwork -p8081:80 -d my\_dba

cd . .

cd db #command for going inside db folder

**Go inside db folder and run the below command in terminal**

# This command builds a docker image called “my\_db”, you can see the image being created in the docker dashboard image section

docker build -t my\_db .

# This command creates a container called “mydb”, you can see the container in docker dashboard container section

docker run --name mydb --network mynetwork -itd -p5432:5432 my\_db

#Come outside db folder into the main folder “CODE\_LAB\_3”

cd . .

create a Dockerfile for running Django project and a requirement.txt under CODE\_LAB\_3

**Run the below command in terminal**

# This command builds a docker image called “my\_django”, you can see the image being created in the docker dashboard image section

docker build -t my\_django .

# This command creates a container called “mydjango”, you can see the container in docker dashboard container section. We are running it in interactive mode

docker run --name mydjango -it -p 8000:8000 --network mynetwork -v $(pwd)/vol\_app:/app my\_django /bin/bash

**vol\_app:/app** > This command creates a vol\_app folder in the local system and app folder in the container system and maps them together. Anything you add in one folder affects the other folder.

**-v** stands for volume

# This creates a Django project called “django\_proj”

app# django\_admin startproject django\_proj

after running the above command, you should be able to see the folder called “django\_proj” being created in your local system under “vol\_app” folder. if not, then you are not in the right path. check again.

**Go inside the “django\_proj” folder in “app” folder inside our mydjango container using terminal**

#Run the below command to migrate

/app/django\_proj# python manage.py migrate

migrate executes the SQL commands in the database file. So after executing migrate, all the

tables of your installed apps are created in your database file.

#Run the server

/app/django\_proj# python manage.py runserver 0.0.0.0:8000

#Creating a superuser to give access to Django admin, input username as “admin” and password as “root”

/app/django\_proj# python manage.py createsuperuser

Username (leave blank to use 'root'): admin

Email address: a@a.com

Password:

Password (again):

Superuser created successfully.

#Run the server again, after this you should be able to connect to Django admin using username as “admin” and password as root

/app/django\_proj# python manage.py runserver 0.0.0.0:8000