ITI Docker Lab2
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Problem 1:

1- Run a container nginx with name my-nginx and attach 2 volumes to the container using volume mount

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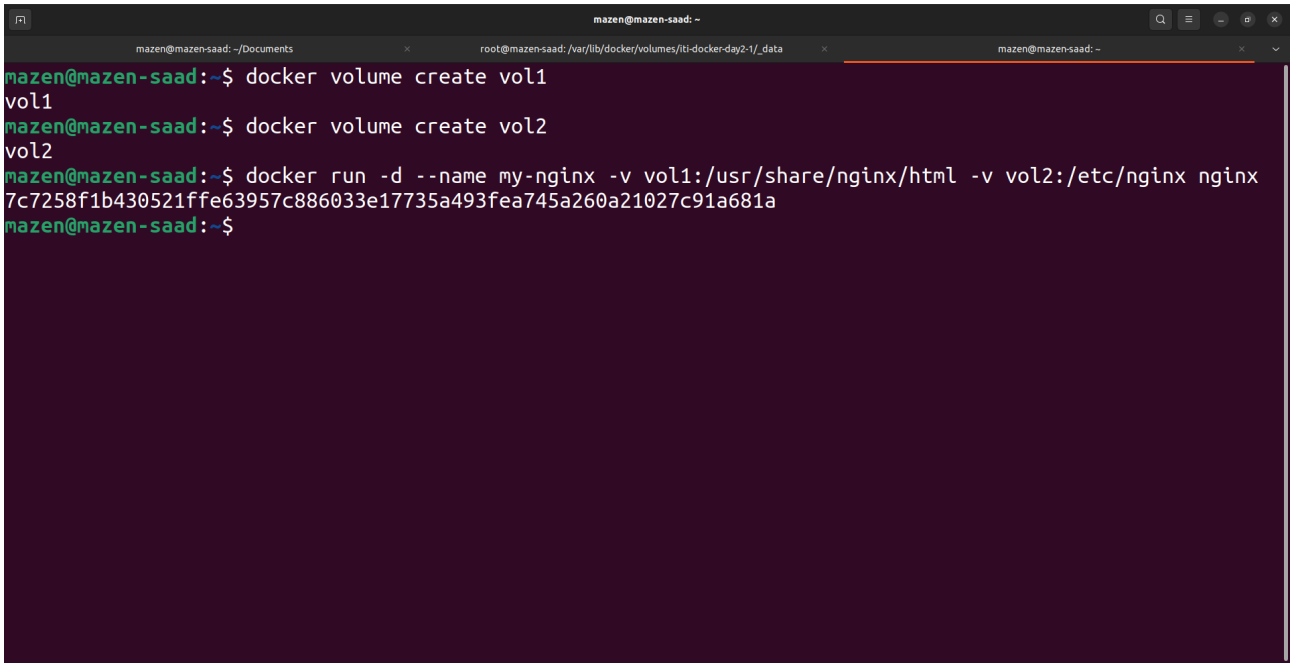
docker volume create vol1

docker volume create vol2

docker run -d --name my-nginx -v vol1:/usr/share/nginx/html -v vol2:/etc/nginx nginx



2- Volume1 for containing static html file

3- Volume2 for containing nginx configuration

4- Edit the html content

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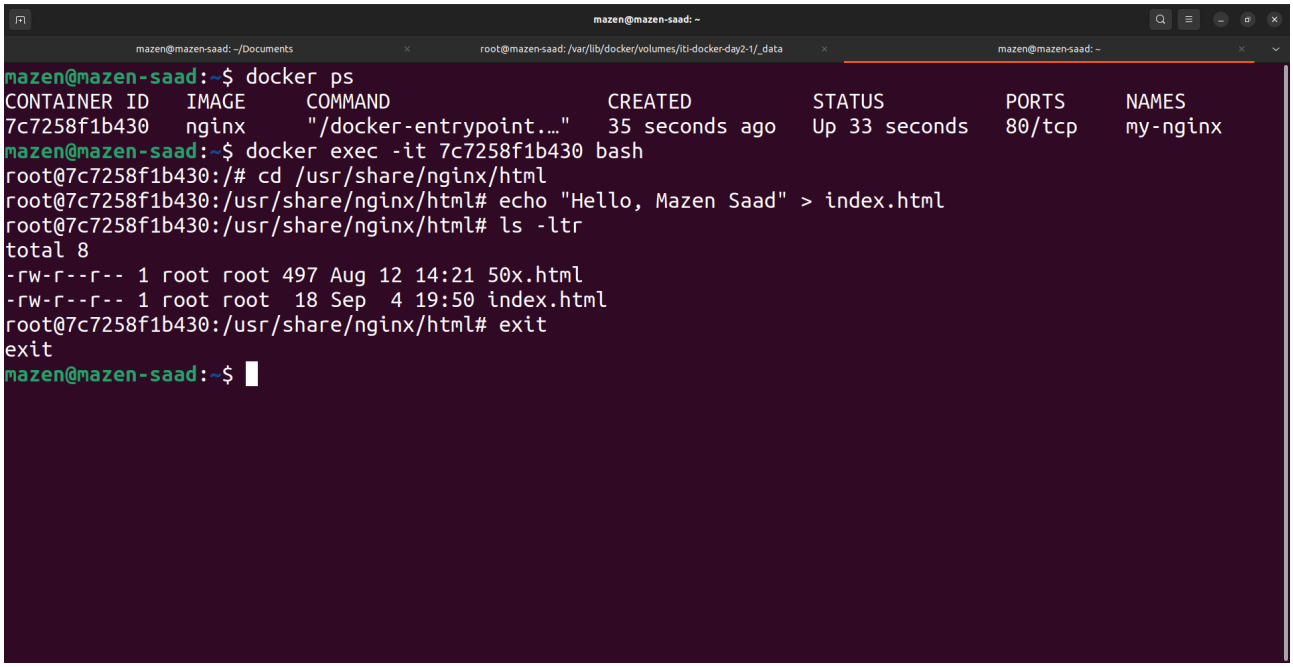
docker ps

docker exec -it my-nginx bash

cd /usr/share/nginx/html

echo "Hello, Mazen Saad" > index.html



5- Remove the container

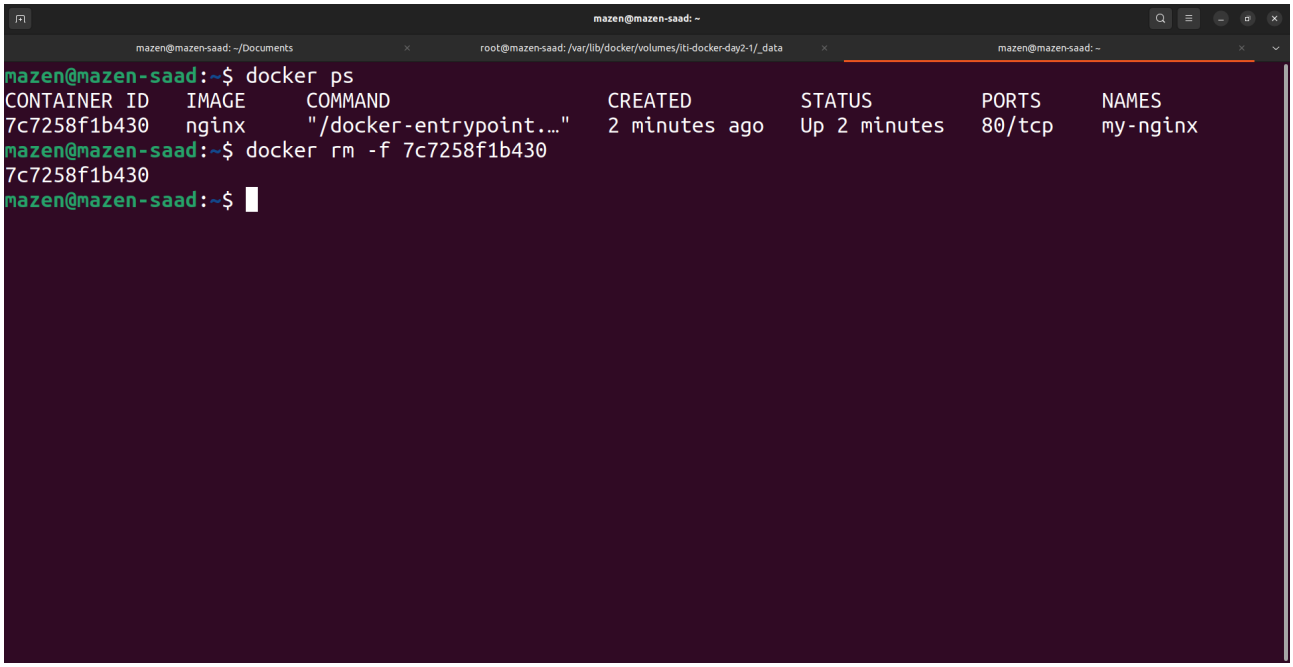
|

docker ps

docker rm -f my-nginx

or

docker rm -f md88j8d3



6- Run a new 2 containers with the following:

6-1 Attach the two volumes that were attached to the previous container using volume mount

6-2 Map port 80 to port 8080 on you host machine

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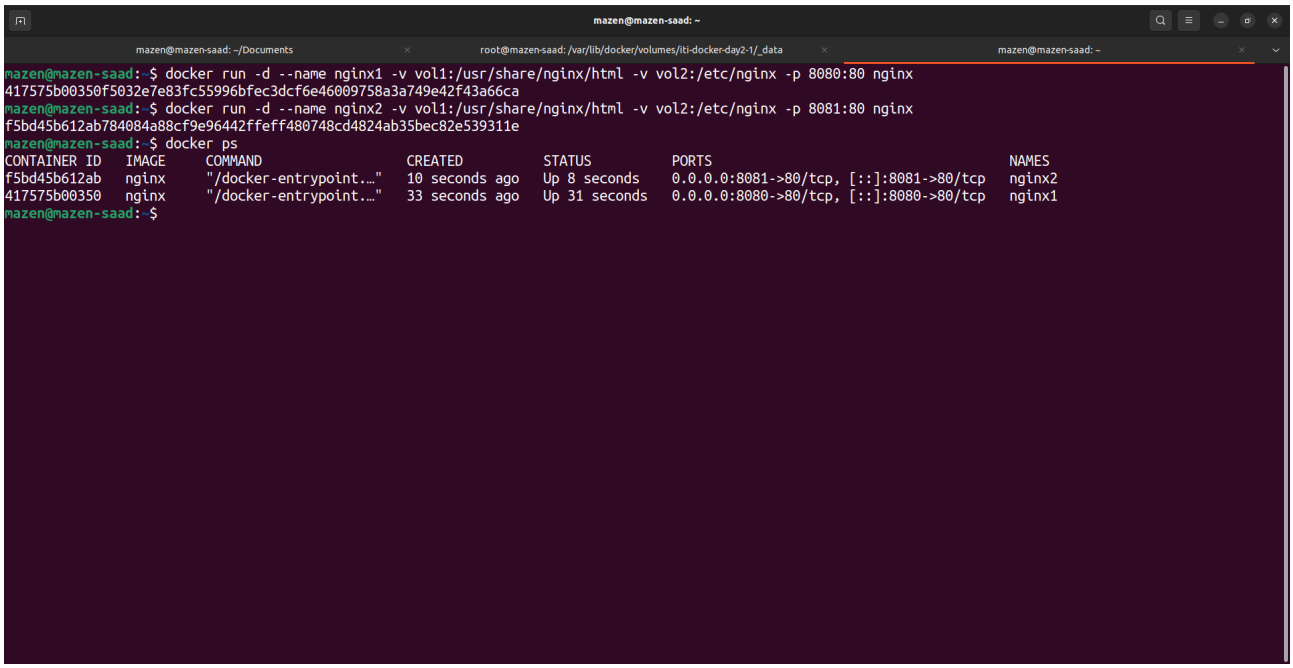
docker run -d --name nginx1 -v vol1:/usr/share/nginx/html -v vol2:/etc/nginx -p 8080:80 nginx

docker run -d --name nginx2 -v vol1:/usr/share/nginx/html -v vol2:/etc/nginx -p 8081:80 nginx



6-3 Access the html files from your browser

```
|
# Open a web browser and navigate to
http://localhost:8080
http://localhost:8081
```

Hello, Mazen Saad

Hello, Mazen Saad

Problem 2:

1- Run a container Nginx with name nginx-bind-mount and attach 2 volumes using bind mount under any paths

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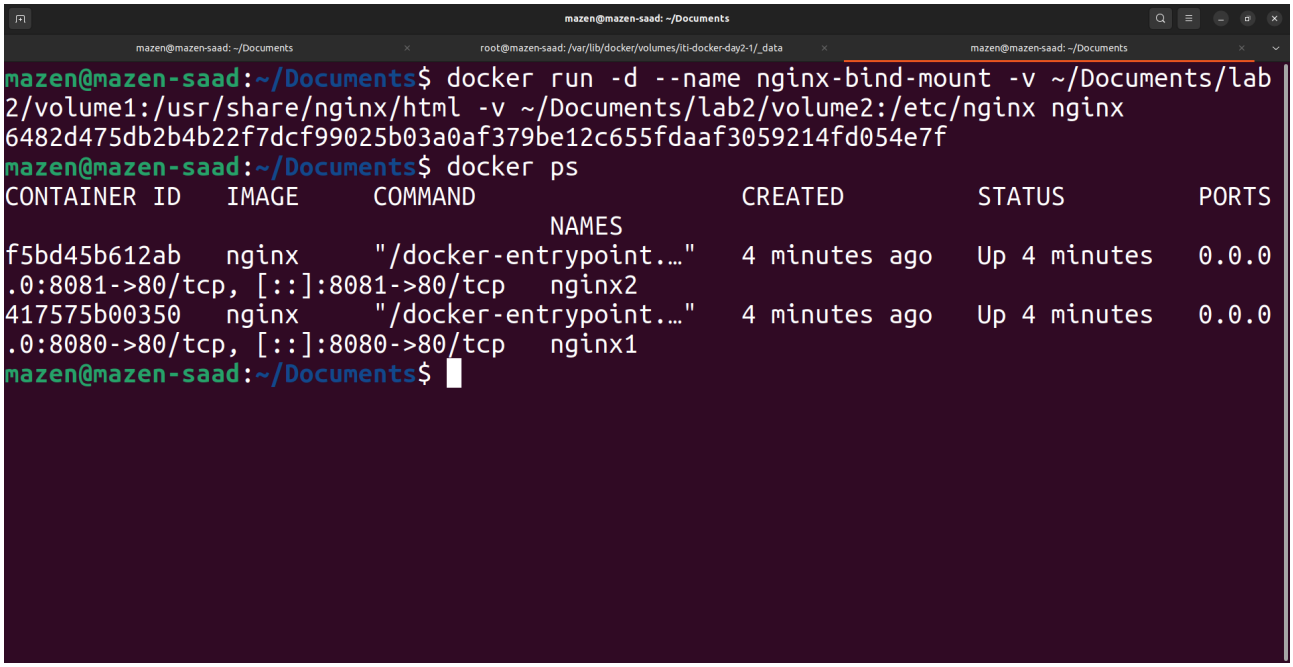
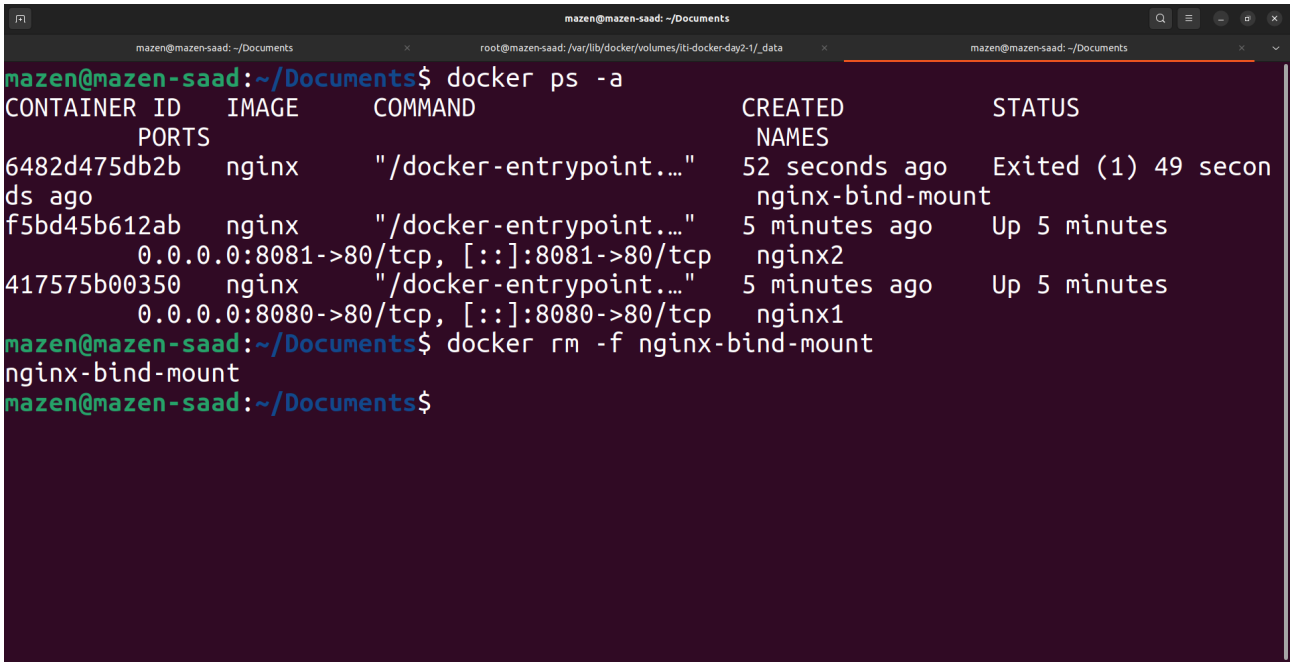
docker run -d --name nginx-bind-mount -v ~/Documents/lab2/volume1:/usr/share/nginx/html -v ~/Documents/lab2/volume2:/etc/nginx nginx



2- Remove the container

docker ps -a
docker rm -f nginx-bind-mount



3- Run a new container with the following:

3-1 Attach the two volumes that were attached to the previous container

3-2 Check the old data in the new containers

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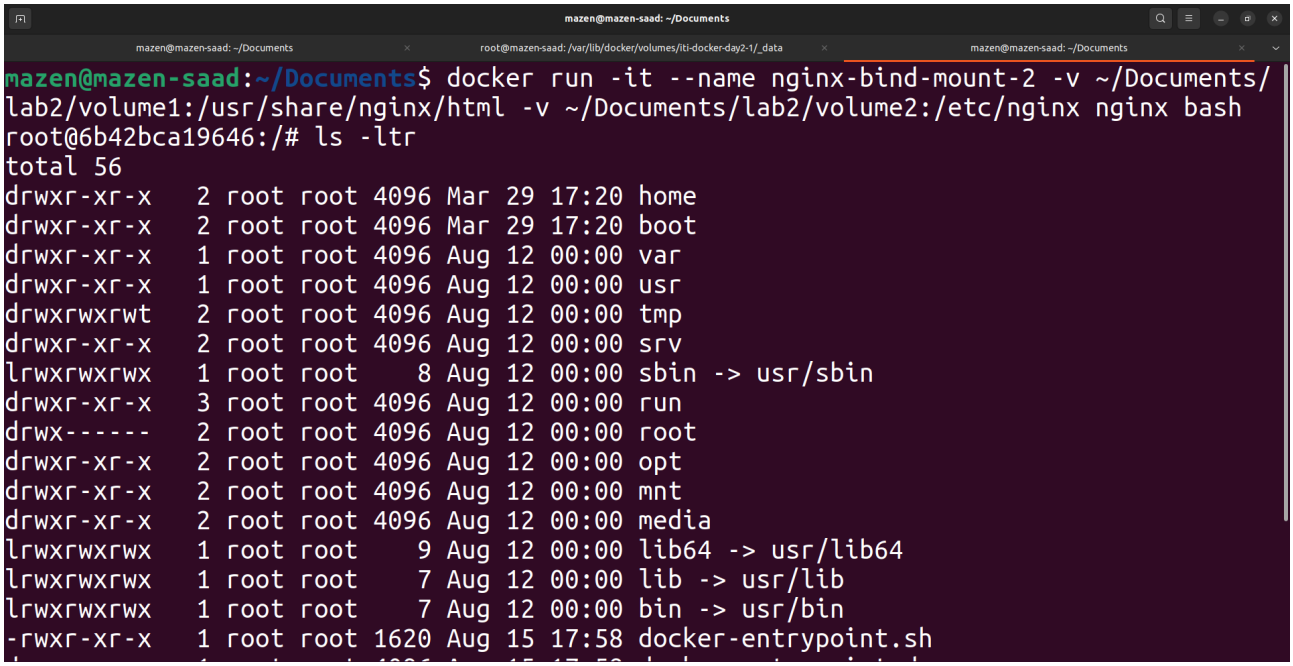
docker run -it --name nginx-bind-mount-2 -v ~/Documents/lab2/volume1:/usr/share/nginx/html -v ~/Documents/lab2/volume2:/etc/nginx nginx bash

ls -ltr

exit

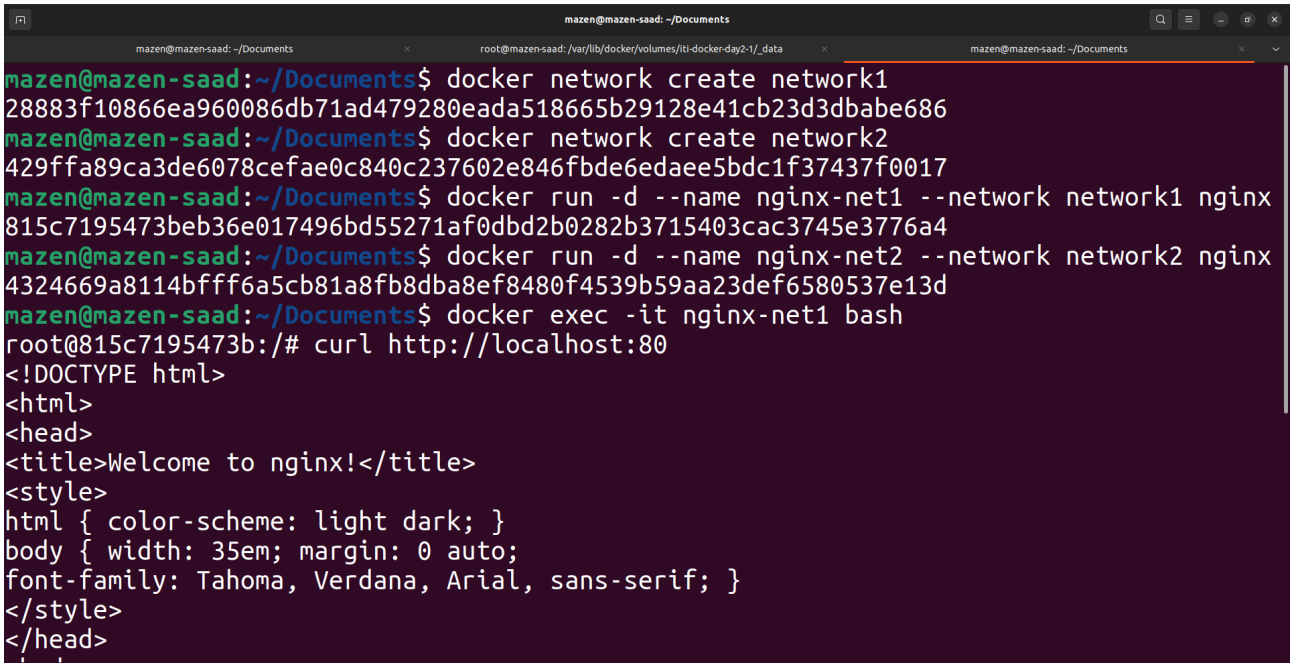


Problem 3:

1- Create 2 nginx containers with 2 different network of type bridge, enter to one of them and use curl command to view the content of the other container.

docker network create network1
docker network create network2
docker run -d --name nginx-net1 --network network1 nginx
docker run -d --name nginx-net2 --network network2 nginx

docker exec -it nginx-net1 bash
curl http://localhost:80



Problem 4:

1- Create docker compose with: Two services nginx and mysql Add needed ports and environments for both services nginx service is depending on mysql service

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docker-compose.yaml

```
services:
mysql:
    image: mysql:latest
    environment:
        MYSQL_ROOT_PASSWORD: 123123
        MYSQL_DATABASE: iti_docker_lab2
        MYSQL_USER: u_docker
        MYSQL_PASSWORD: 123123
    ports:
    - "3306:3306"

nginx:
    image: nginx:latest
    depends_on:
        - mysql
    ports:
        - "8080:80"
```