

In case you encounter an error like this start the Docker Desktop application which is installed in your computer.

Commands:

To build the containers:

`docker compose build`

After successfully building you should get an output like this:

A computer screen with text on it

Description automatically generated

If something goes wrong please try to build the containers from scratch using:

`docker compose build –-no-cache`

To start the server use the command

`docker compose up`

When running this command for the first time you will see that the mysql image gets downloaded and your terminal will look like;

A black screen with white text

Description automatically generated

In case of an error like below:



Please check that there is no process using the 3306 port on your machine.

### Problems faced

After a lot of debugging for the error saying:

A computer screen with text

Description automatically generated

It was found that for docker we need to run the command `docker compose down` after stopping the containers. Otherwise, it won’t re build the volumes which include the mysql database.

### Notes:

During development use the command `docker compose up –build` to quickly build and run the containers.

### Final Output:

All the docker containers which includes the flask server and mysql database are working and connected to each other. The server can be accessed on localhost:5000

After visiting the localhost:5000, I got the following error, which tells that there is some mismatch between the paths which I have not looked at.

A screenshot of a computer

Description automatically generated

As an CI/CD Engineer, I was tasked with designing, implementing, and maintaining the pipelines that facilitate automated software development processes, ensuring the smooth, efficient, and reliable delivery of software products.

Continuous Integration and Continuous Deployment (CI/CD), scope of this project limits itself to creating the docker containers and corresponding docker image.

The main aspect of this scope of the project is building docker compose file, building the containers for the flashcard app and MySQL as well.

All the docker containers which includes the flask server and mysql database are working and connected to each other. The server can be accessed on localhost:5000

The Docker Images with containers can finally be seen in the Docker Desktop. Although, with some vulnerabilities, the Images were displayed successfully.

A screenshot of a computer

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Docker, merge request, pipeline, requirement file

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