Applied DevOps Assignment-2

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Problem Statement:

In this assignment we are about to build customize MySQL docker image using Dockerfile. Once we start the container using that built image, require schema and records should get loaded in MySQL container. For more information please visit here.

Steps:

1. As we wanted to build a MySQL image, there is already an official mysql image in docker hub.
2. Added required environmental variables.
3. I have taken that image, written the necessary schema and query in a test.sql file.
4. I have appended data from the test.sql file to docker-entrypoint-initdb.d which acts as entrypoint for a container.
5. And I have exposed the container's 3306 port which is by-default port of MySQL.

Dockerfile:

As there are total seven lines in Dockerfile excluding the new lines.

Line 1: From mysql

It means we are using a mysql image, if this image is present in your machine then it goes to next instructions else it pulls that image from docker hub and then executes instructions.

Line 2: ENV MYSQL_ROOT_PASSWORD=root

It assigns root to MYSQL_ROOT_PASSWORD which acts like an environment variable in the container.

Line 3: ENV MYSQL_DATABASE=pucsdStudents

It assigns pucsdStudents to MYSQL_DATABASE which acts like an environment variable in the container.

Line 4: ENV MYSQL_USER=pucsd

It assigns pucsd to MYSQL_USER which acts like an environment variable in the container.

Line 5: ENV MYSQL_PASSWORD=pucsd

It assigns pucsd to MYSQL_PASSWORD which acts like an environment variable in the container.

Line 6: ADD test.sql /docker-entrypoint-initdb.d

All instructions inside the .sql file are appended to the docker-entrypoint-initdb.d file which acts like an entrypoint of the container.

Line 7: EXPOSE 3306

We are exposing port 3306 to the host machine so that we can interconnect container port to the hosts machines.

Please visit the github link and follow along with README.md file for instructions and services.

Note:

As mysql image is built on top of Ubuntu/Debian image it consumes near about 500MB of disk space. I'm trying to install MySQL/MariaDB in an Alpine Linux image to reduce the storage.

Thank you!