DATABASE SYSTEM IMPLEMENTED ON DOCKER

DATABASE PROJECT REPORT

SUBMITTED BY

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As part of the Course **Operating System– CS5**

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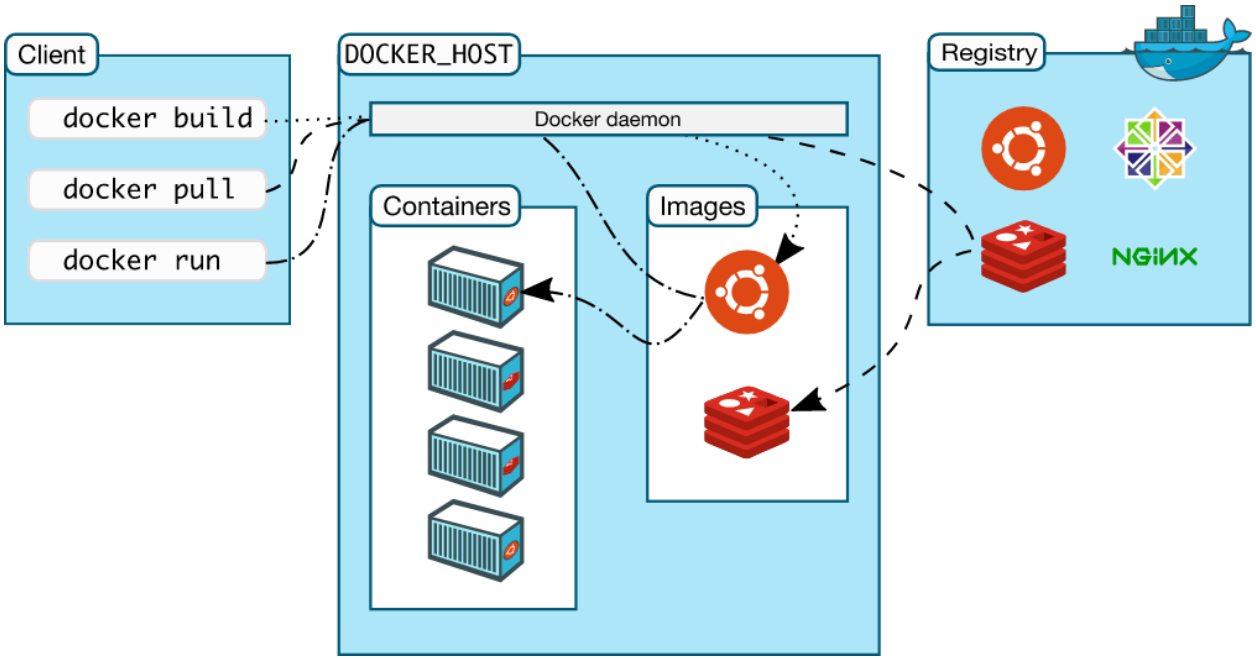
Introduction

Docker is a set of platforms as a service (PaaS) products that use the Operating system level visualization to deliver software in packages called containers. Containers are isolated from one another and bundle their own software, libraries, and configuration files; they can communicate with each other through well-defined channels. All containers are run by a single operating system kernel and therefore use fewer resources than a virtual machine.



Procedure

1.Installing Docker Engine

```
$ sudo apt-get update

$ sudo apt-get install docker-ce docker-ce-cli
containerd.io   docker-compose-plugin

$ sudo groupadd docker

$ sudo usermod -aG docker $USER
```

2.To check if the docker working or not

```
$ sudo docker run hello-world
```

3.Install the xampp image into the docker

```
$ docker pull tomsik68/xampp

To check all images in the docker type

$ docker images
```

4.After installing the xampp image ,run the image with the both port numbers for SSH and phpmyadmin

```
$ docker run --name myXampp -p 41061:22 -p 41062:80 -d -v
~/php/src/:/www tomsik68/xampp
```

This image uses /www directory for your page files, so you need to mount it.

The command above will expose the SSH server on port 41061 and HTTP server on port 41062. Feel free to use your own name for the container.

To browse to your web page, visit this URL: http://localhost:41062/www And to open up the XAMPP interface: http://localhost:41062/

5.Open a terminal and type

```
$ ssh root@localhost -p 41061

And for the password type root again

Then type cd ../../ to go back into the main directory

Then type cd www/ you be inside the www folder

Then install git package using

$ apt-install git

After installation is done type

$ git clone https://github.com/raunakq12/dbms-project.git
(github project link)
```

6.After the the cloning open the dbms-project by typing

$ cd dbms-project

Then type

$ nano sql.file

And edit the host ,username ,database name and password used in the mysql

7.Now you are all set to deploy your application on docker

Just type https://localhost:41062/www/dbms-project

And use the application normally but without having to worry about the environment.