**On Docker deployment of webpage using customized webserver**

Rahul Kumar Prajapati

IIEC Rise -id 2020.11.58.5

This project is totally based on containerization technology by using the DOCKER platform. For running various things like apache server on container(OS), there’s needs of very powerful setup and environment. Usually we have seen that’s for performing some normal tasks and operations first ,we need to setup Operating system for several times and which is actually takes lots of your valuable time and due to heavy traffic you might lose your valuable clients . But Docker is type of technology which launches many containers (Operating system ) at same time within 1s of time from downloading OS to booting it and launching the workspace, on your base Operating system which is actually cost effective for companies who totally reliable on webserver to provide services to their clients. Now you might all thinking how is this possible, but actually there is reason behind this great technology. As new OS launched it creates their own KERNEL, but in Docker it Uses the existing KERNEL and that is the most attractive thing is about Docker.

Lets come to the point what I created using Docker, I created a project on WEB using the httpd inside the centos:7. It has various benefits as if your server is getting heavier than you can simply switch to different OS by just launching Docker . Mainly the Docker is used for bigger application like Jenkins and Kubernetes. For running any container inside Docker we have to download on our base Red hat Linux platform. I pulled various images using command:

e.g: “Docker pull” centos: [Specify Version]

In Docker I created my own customized images and uploaded on Docker hub by using push cmd. But in my project I have created my network using bridge driver as this connects my base(redhat) system with my Docker . I can also run my webpage over windows, just by using IP address.

The steps which I used to create the platform for my webpage where I can deploy my project.

Step 1:

I pulled image centos

cmd:

* Docker pulled centos

Step2:

Then, I create a container

Docker run -it --name myweb centos:7

Docker ps -a

Step3:

I installed [‘net-tools’ for ifconfig] inside this OS and also httpd.

Cmd : yum install net-tools

Step 4:

In this I commit this running OS in the form image.

Cmd: docker commit myweb webserver:v1

Step 5:

Now I created a network using bridge driver

Cmd: docker network create –driver bridge mynetwork

Step 6:

Then I created a storage for that file of docker:

Cmd:

Docker volume ls

volume create myweb storage

Step 7:

Now I created environment for httpd inside webserver container

For that I have given cmd:

# Cd /var/www/html

# Vi index.html

Then I wrote code for index.html for loancalculation and additional task using js

Step 7:

Then, I launched an image using mynetwork , myweb, storage, webserver:v1 container

First I flushed iptables for patting:

Cmd:

#iptables -F

#iptables -nvL

# Docker run -dit --name myproject --network mynetwork -- volume myweb\_storage -p 8080:1234

Webserver:latest

Then I typed my ip:1234 on windows :

Step:8

The output of the project is as follows:

A screenshot of a cell phone

Description automatically generated

Just by putting my ip:port number any one can access it, this is just small example of web Loan calculator and more things we can add by js…