How to install docker in windows ?

Ans : -> go to google and search docker installation ->

Note: I have installed docker desktop in my local machine - > windows version

Just need to open the terminal and need to run the docker command

* - > every container will have all the foundation or structure which we have in our local laptop as to run the application
* > so when we do command : docker exec -it <container ID> /bin/bash or sh -- > and command - > ls - > it will give virtual file directory - > meaning now we are opening the shell or bash inside the container to execute
* Note : when we have a container then it is like a mchine which will have all the system which we have in our laptop

Dockerfile

FROM java jdk

ENV MONGO\_DB\_USERNAME=admin\

MONGO\_DB\_PWD=password

RUN mkdir -p /home/app

COPY ./App /home/app

CMD [“java”, “/home/app/\*]

Meaning : it will take the image of jdk (FROM)

ENV is used to set environment variable

RUN is used to make the directory of app

COPY is used to copy the App (from current local machine directory ) to container’s directory /home/app

CMD is used to say that it is java and should execute provided path

###############################

Proof of this Docker file implementation

docker exec -it <container ID> /bin/bash or sh

ls - > it will give virtual container file hierarchy

ls /home/app - > it will give the same file which we have in our local machine

env -> it will give the environment variable in which we hae mentioned in docker file for mongodb

Dockerfile:

FROM java jdk

LABEL name=”Shambhu”

LABEL email=”shambhu@gmail.com”

ENV MONGO\_DB\_USERNAME=admin\

MONGO\_DB\_PWD=password

RUN PWD>/tmp/1st.txt

RUN CD /tmp/

RUN PWD >/tmp/2ndpww.txt

Lets check what will be the directory:

Command:

docker image build -t <image\_name> -- docker imae build command

docker container run -it <container name> 🡪 container execution or run ( -it - > interactive terminal)

or

docker exec -it <containerId>

now do : cat 1st.txt and 2ndpww.txt

result: will be root like : /

Q) Why working directory did not change in 2ndpww.txt file

Ans: because every command will run in different layer so first and second RUN command is executed in different layer so they can not make it together and can not brinbg working directory “/tmp “ in 2ndpww.txt file

For that we need to put

WORKDIR /tmp

RUN PWD>/tmp/3rdpwd.txt

Output : /tmp

What is difference between COPY And ADD ?

Add - > it will give all the content of the directory

Copy - > it will give directory only

Eg. suppose : Tree direcotroy having : rose, pineapple, jackfruit file

If we do Add then it will give all content of Tree

If we do Copy then it will give only directory Tree

Dockerfile

FROM :