**DOCKER**

**>>HOW TO INSTALL DOCKER**

**IN WINDOWS**

**google ------> docker toolbox ---->docker toolbox docker**

**>>IN LINUX :**

**login to root user ----- sudo su**

**$ yum install docker**

**or**

**go to google --> docker rpm file--> copy link --> go to linux server --> wget paste link**

-->to check docker version whether we installed or not

**$docker -v or $docker -version**

-->to check what are the docker images you have in machine the command is

**$ docker images**

**-**->to check particular image then you have to hit a command is

**$ docker search centos or $docker search hello-world**

if we hit this command what are the images are there with hello-world name all images will be displayed, According to stars we have to select image

-->how to download image into local machine

**$ docker pull imagename -------- $ docker pull hello-world**

--> how to check whether image downloaded or not , the command is

**$ docker images**

here we will get REPOSITORY NAME , TAG , IMAGE ID , CREATED , VIRTUAL SIZE.

-->each and every image have image id , for every image only read access only will be there. when we run a image it will create like container.images will be created by different different users.

**-->** to delete docker image the command is

**$docker rmi repository-name , $docker rmi hello-world centos**

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**$docker pull centos**

**$docker images**

centos

Now currently i am in LINUX SERVER if i run one command then i will go to CENTOS.

that command is , **docker run -it imagename , $docker run -it centos**

if i run that command directly i will enter into the centos **[root@containerid/]# hostname**

now whatever i want to configure inside Centos i can install like git ,jenkins ,maven ,java

**[root@containerid/]# hostname**

**[root@containerid/]# sudo yum install git**

now git installed ,to check the command is **# git --version**

-->NOW I WANT TO COME TO LINUX SERVER, if i want to exit from centos to linux server the command is

**[root@containerid/]# exit**

when i run exit command the container will be stop.

**[root@linux-server/]$ cd /opt**

**[root@linux-server/]$ ll**

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--> i downloaded centos image and once i run a image the image will convert as a container i will go from linux-server to centos container now if i want to come out from centos to linux-server hit a command is exit then i will enter into linux-server, Now i have to check that container is running or not , the command is

-->to check what are the containers running , command is $docker ps

**[root@linux-server/]$ docker ps**

again i am enter into centos now here if i give a command is **$docker -v** it will display command not found because in centos i didnot install docker.

now if you needs run docker and git , jenkins , maven then you need to install this all in centos because centos is new container it will work like a new serever.

>>we can create multiple containers from one image.

-->exit from centos again

**$exit or we can give ctl+d**

now hit a command is **$docker ps**

**---->NOW IF I WANT TO LIST ALL CONTAINERS LIKE RUNNING CONTAINERS AND STOPPED CONTAINERS.**

the command is**, $docker ps -a**

here the containers will select command is **"bin/bash"** by defaultly

here it will display like ,container-id , image , command , status, ports.

by status we can see whether container is running or not , if status shows exited then container may be stopped.

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>> now my requirement is just i want to run a container but i shouldnot enter into that container ,

the command is ,

$docker run -itd centos---------------------->here **itd** means interactive terminal ditached mode.

>>if i hit a command is **$docker run -itd centos** , it will run the container and it will display **container-id** also but we will be in **linux-server** only we will not enter into the **centos container** because we are using **d** in command it is a **ditached mode** so

**[root@linux-server/]$ docker run -itd centos**

it will start the container but not entering into the container.

>> if i give a command is **$docker ps -a** , we can see container is running or not ,

**[root@linux-server/]$ docker ps -a**

**[root@linux-server/]$ docker ps**

**check status , up 16seconds** it means from 16 seconds the container is running

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**this two are container now i want to enter into anyone container is the command is ,**

**[root@linux-server/]$ docker attach imageid or containerid**

>>here if i give a command is **docker run -it imagename** it will convert image as a container and enter into the container.

>>now container is running so i want to enter into the container centos the command is **$docker attach container-id**

>>again if i give exit command here it means i am coming to linux-server from centos as well as i am terminating centos container.

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>>my requirement is i want to come out from centos container but that container shouldnot be terminate it should be in up and running , the command is ,ctrl+p+q

**ctrl+p+q** ----- if i use this i will come to linux-server but container will be running it will not be terminated or stopped

**$docker images**

**$docker run -itd centos**

**$docker ps**

**$docker run -it centos ----- now i enter into centos container, now i want to exit from centos to linux-server without stopping container ,**

**ctrl+p+q**

**>>NOW i want to stop container from linux-server**

**docker stop containerid**

**[root@linux-server/]$ docker stop container-id**

now container is stopped , to check the command is

**$docker ps**

**$docker ps -a**

>>now again i am starting the containers which i stopped

**$docker start container-id**

>>now i want to enter into that container , command is

**$docker attach container-id or $docker run -it centos**

>>from one image we can create multiple containers.

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**>> HOW TO DELETE IMAGES**

the command is $docker rmi image-id

**[root@linux-server/]$ docker images**

all images will be display if i want to delete any image the command is ,

**$docker rmi image-name or image-id -------------**rmi means remove image

>>we can delete the image if container running also but we delete forcefully by -f command

**$docker rmi -f imagename**

>>to stop the container command is

**$docker stop container-id**

another command to delete image is ,we can delete forcely

**$docker rmi -f imagename or image-id**

**$docker images**

**$docker ps -a**

**>>NOW HOW TO DELETE CONATINERS**

--> to delete containers first we have to stop container

**$docker stop container-id**

-->to delete container the command is , **$docker rm container-id**

-->at a time if i want to delete four containers , the command is

**$docker rm container-id1 container-id2 container-id3 container-id4**

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>>NOW I DELETED IMAGE THEN IF I WANT TO RUN A CONTAINER I CAN RUN

**$docker start container-id**

>>now if i want to enter into that container the command is

**$docker attach container-id or $docker run -it image-name**

**[root@image-id/]$ git -version**

**>>**

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**DOCKER INSPECT :**

if you a command $docker inspect container-id >> it will display all information about that conatiner. it will dispaly like file , Now if i want to search particular file then i have to use grep command

**Example :**

**$docker inspect container-id | grep IPA ---------->it will display IP address**

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**HOW TO GIVE CONTAINER NAME OR HOW TO GIVE SPECIFIC NAME FOR CONTAINER-ID :**

the command is ,

$docker run -itd --name container-name imagename

example:

**$docker run -itd --name server1 centos**

$docker ps

>> to change image name the command is

**$docker tag image-id image-name**

**>>HOW TO CHANGE CONTAINER NAME :**

to change container name the command is ,

**$docker rename existing\_name new\_name**

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**HOW TO RUN JENKINS :**

Now i installed jenkins image in linux machine $docker pull jenkins

once i installed jenkins how to run jenkins ,the command is

**$docker run -it --name jenkins-container -p 8086:8080 jenkins**

here, we are keeping container name as jenkins-container

-p is nothing but port number ,8086 is we are assigning the port number for jenkins and 8080 is a default port number.

jenkins is a image\_name