DOCKER

1) Sign up Docker by using following link https://cloud.docker.com/
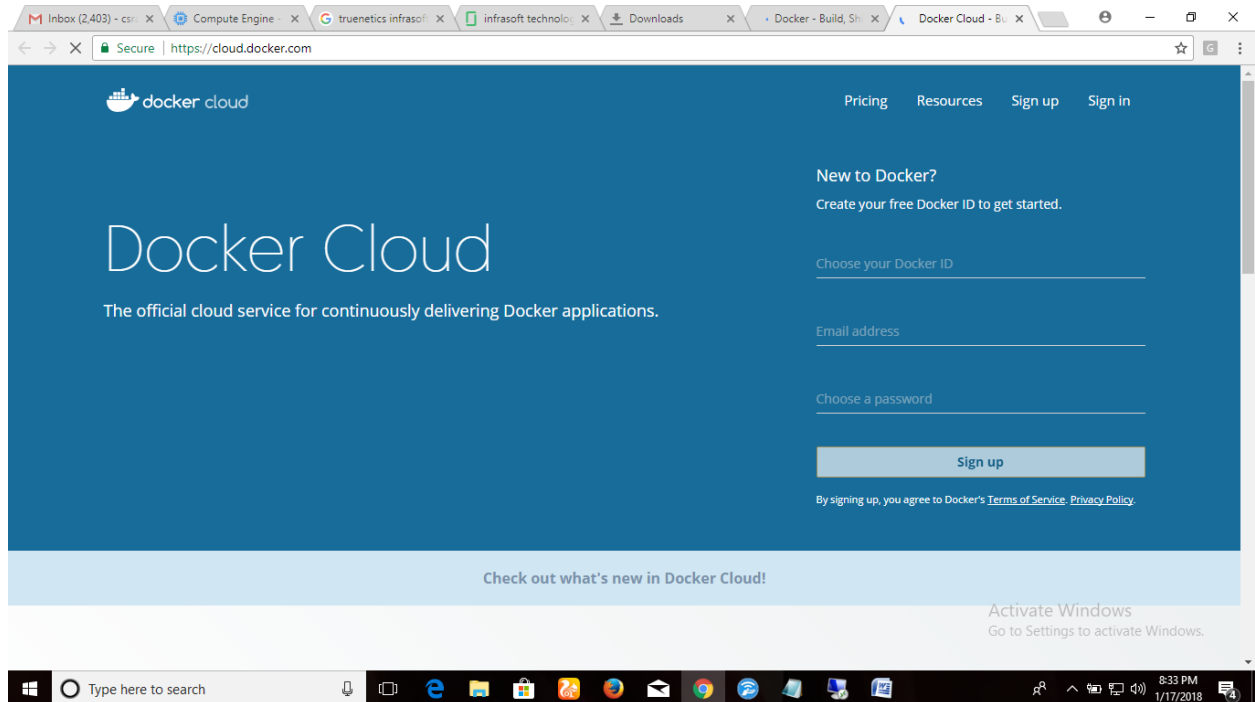
2) Open a account of https://cloud.google.com/
3) Go to console
4) Next Compue Engine (u can see it on left side tab)
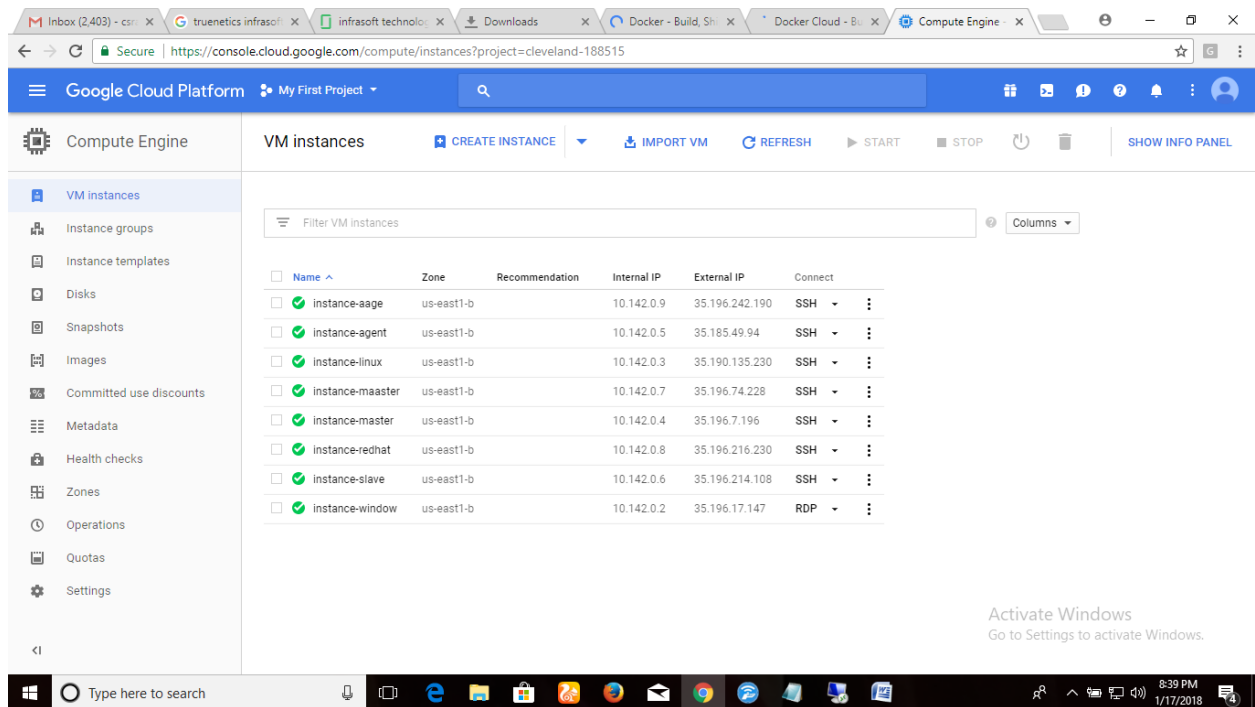
5) Click on SSH of instance-master (Note : Creating of instance explainedin Puppet Document)

<mark>INSTALLATION OF DOCKER in CENT OS 7</mark>

(click on SSH of instance-master a terminal will get open run the following commond in that)

1) To install Docker
sudo yum install -y docker
(it will take around 1-2 minutes to install)
2) To start Dockler
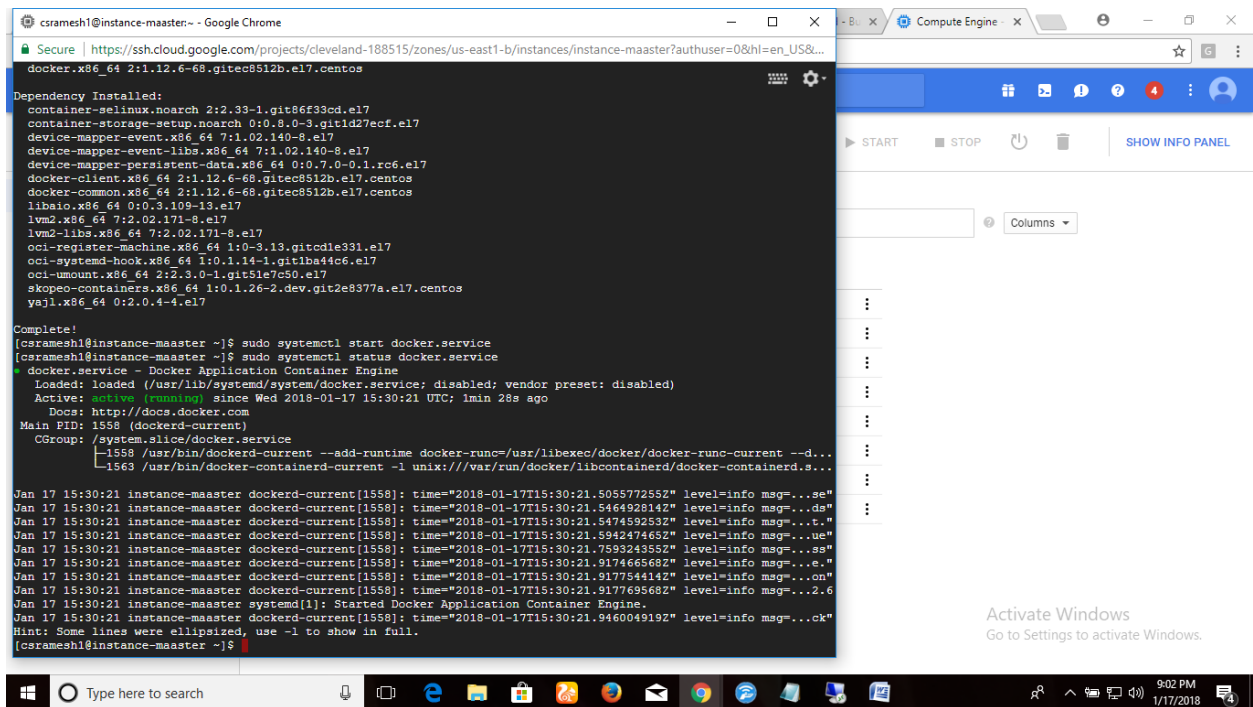**sudo systemctl start docker.service**
3) Now check the status of Docker
sudo systemctl status docker.service

(get confirmation it shows active and running in green colour)

4) **To check Docker version**

   sudo docker version
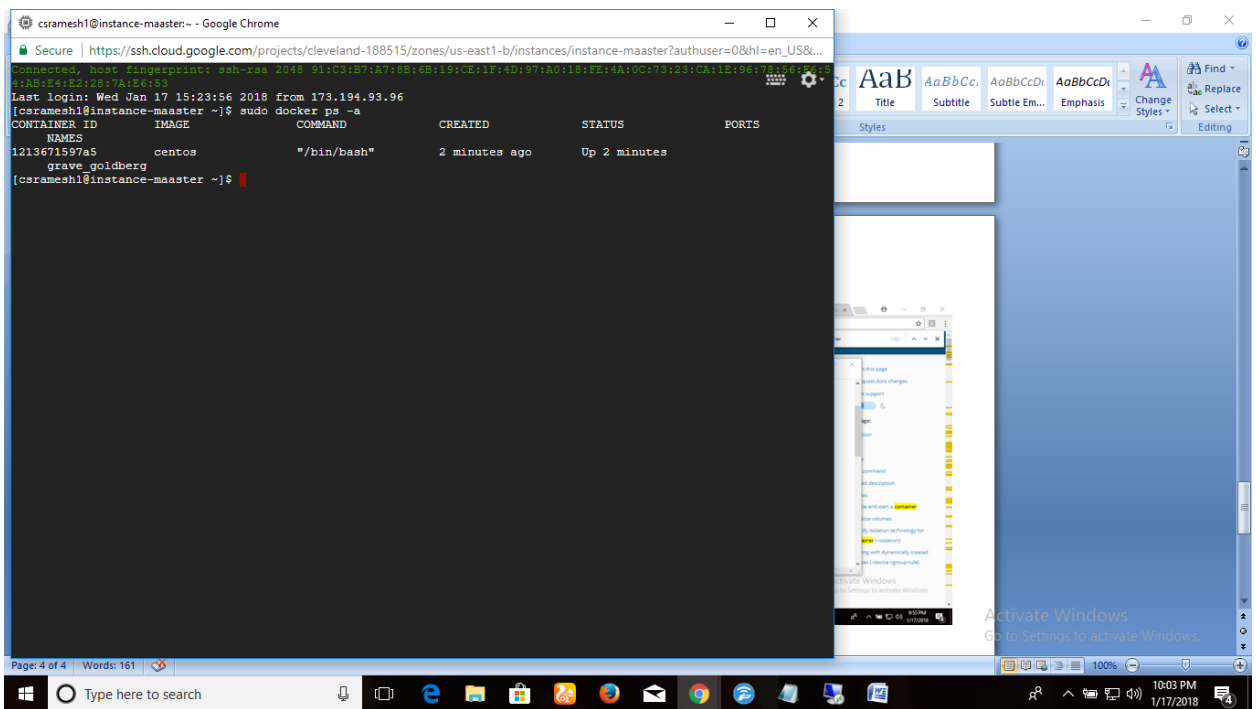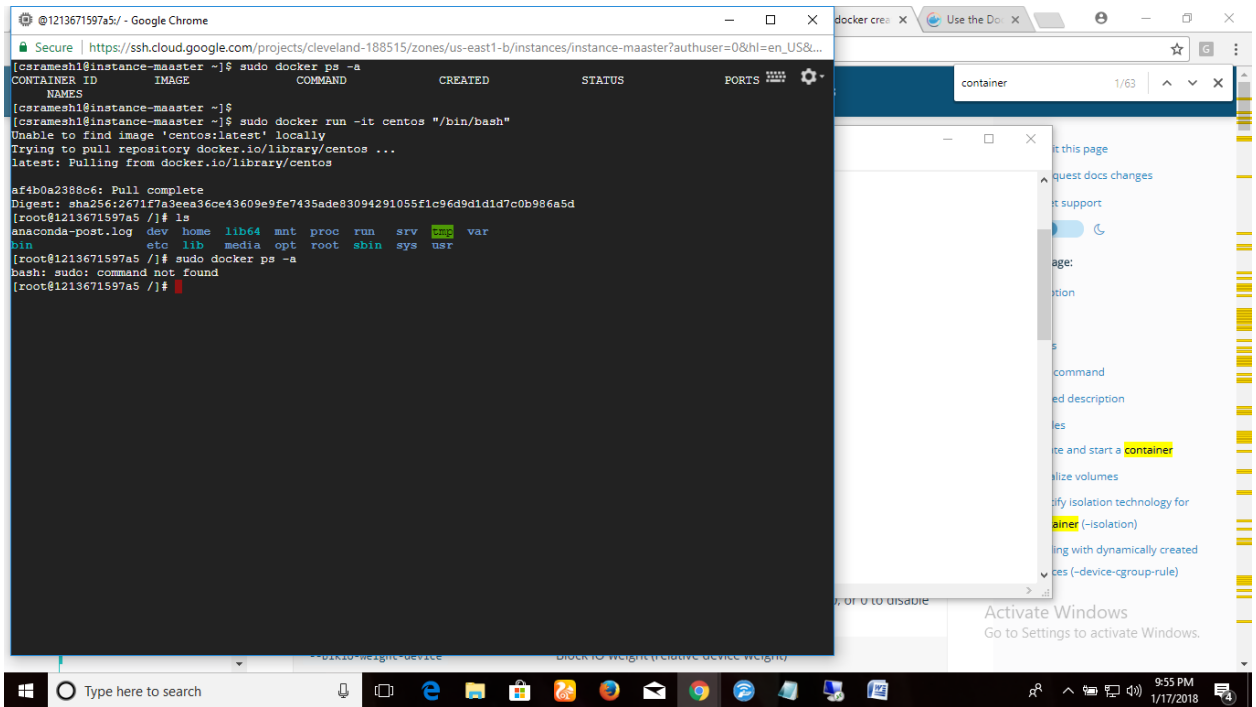
5) **To create container**

   sudo docker run -it centos "/bin/bash"

6) **To check container**

   sudo docker ps –a

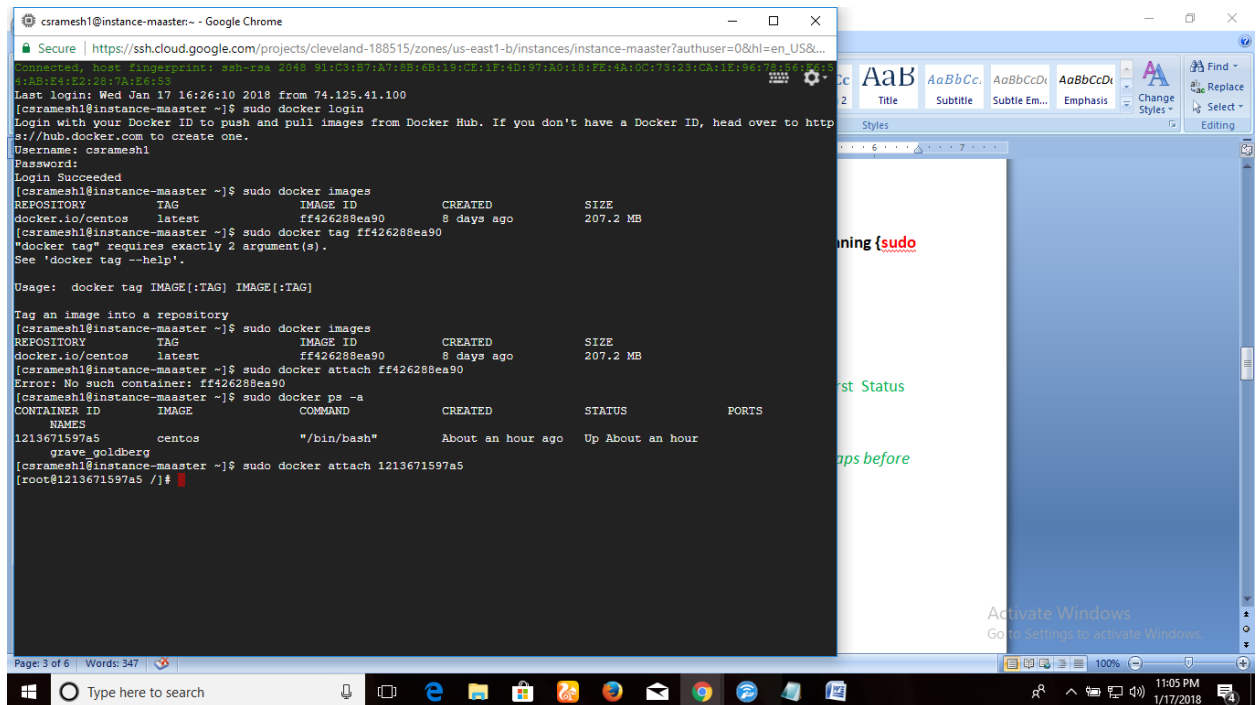   (from running this commond we can find container id which is first Status Uptime)

   (You can see difference of two commonds execution in below snaps before and after commonds)

(Some time it will display command not found there may be chances of abortion in connection that's why need close terminal & re-open it by clicking on SSH)

7) To get inside of container

sudo docker attach container id (u can find container id by running {**sudo docker ps –a** }

(to get confirm)

It will change to root @container id

To attach container

sudo docker attach `1213671597a5` ← Container id

sudo docker attach containerid

(note : pls paste ur own container id as appear in terminal while running commond **sudo docker ps –a)**

8) To remove container
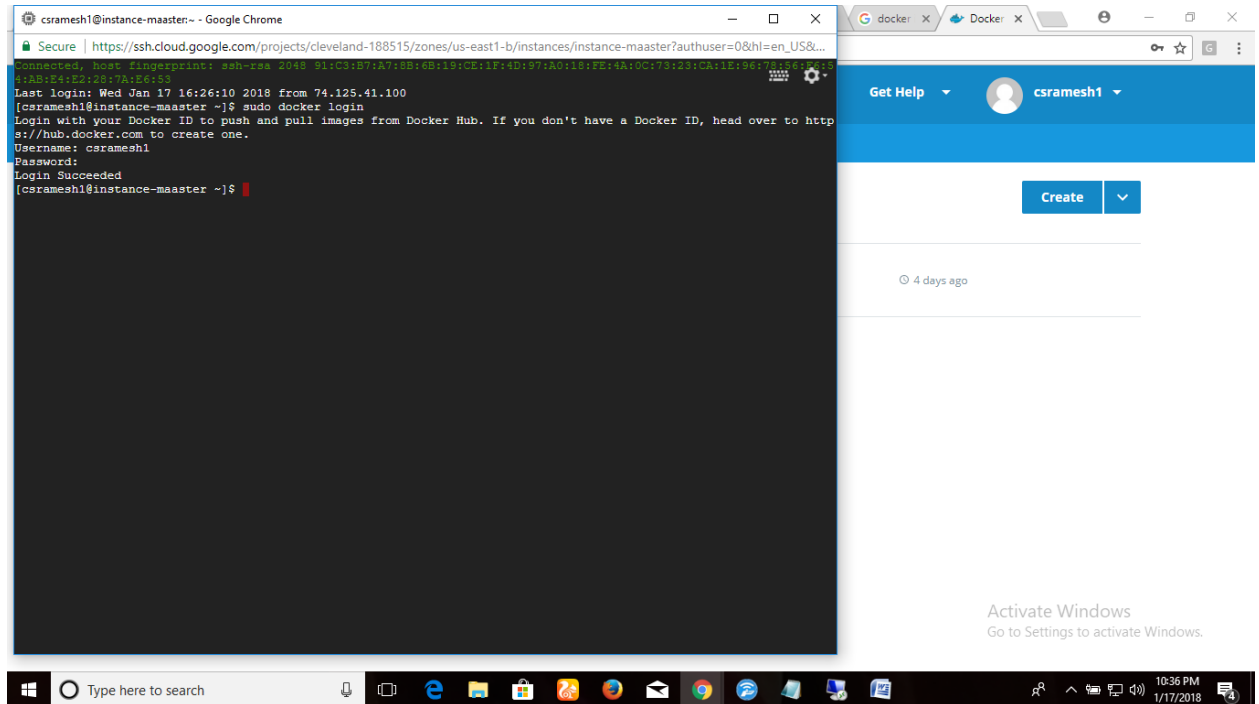
sudo docker rm container id

(u can remove container)

9) **Creation of Docker images**

(to create docker images sign in to docker hub which one created before ..
here is the link https://www.docker.com

Sudo docker login

(after running above commond it will ask username & password use the
same while u have given at the time of sign up)

10) **Exit from container**

exit

(Type exit and enter if u wont come outside from container the below
commonds wont work I mean it displays commond not found)

11) **To see docker images**

sudo docker images

12) **To push image to docker hub**

sudo docker push imageid

(type image id in above commond)

(image id & container id would be different)

```
Error response from daemon: Get https://registry-1.docker.io/v2/: unauthorized: incorrect username or password
[csramesh1@instance-master ~]$ sudo docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to http
s://hub.docker.com to create one.
Username (csramesh1): csramesh1
Password:
Login Succeeded
[csramesh1@instance-master ~]$ sudo docker ps -a
CONTAINER ID        IMAGE               COMMAND               CREATED             STATUS              PORTS
           NAMES
7b3e1b88c8da        apache:1.0          "/usr/sbin/httpd -D F"  3 days ago          Up 3 days           0.0.0.0:80
->80/tcp    apache_server
7d32a95c7502        centos              "/bin/bash"             4 days ago          Up 4 days
           sick_shaw
31936c3dfdf7        centos              "/bin/bash"             4 days ago          Up 4 days
           tender_pike
[csramesh1@instance-master ~]$ sudo docker attach 31936c3dfdf7
[root@31936c3dfdf7 /]# sudo docker images
sudo: docker: command not found
[root@31936c3dfdf7 /]# sudo docker image
sudo: docker: command not found
[root@31936c3dfdf7 /]# exit
exit
[csramesh1@instance-master ~]$ sudo docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
apache              1.0                 1d5ed4ee340e        3 days ago          330.7 MB
csramesh1/csr       latest              ff426288ea90        8 days ago          207.2 MB
docker.io/centos    latest              ff426288ea90        8 days ago          207.2 MB
ramesh/apache1.0    latest              ff426288ea90        8 days ago          207.2 MB
[csramesh1@instance-master ~]$
```
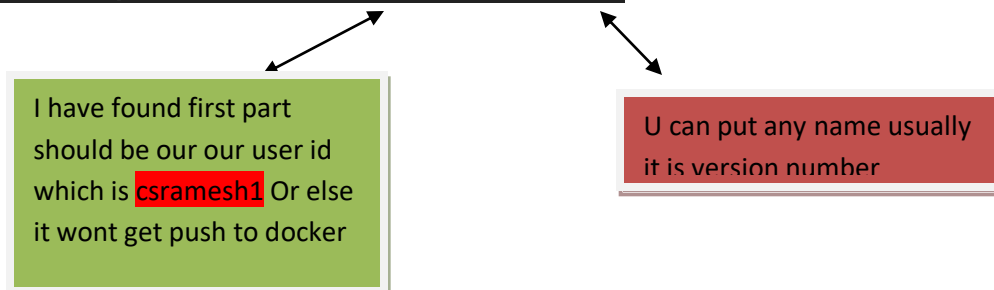
13)   To tag the docker image

sudo docker tag image id givedifferent name

```
sudo docker tag 1d5ed4ee340e csramesh1/version
```

(tagging means it is replica of same image I mean we are changing the name of image)

```
sudo docker tag 1d5ed4ee340e csramesh1/version
```

I have found first part should be our our user id which is csramesh1 Or else it wont get push to docker

U can put any name usually it is version number

14)   To push docker image to docker hub

sudo docker push image

```
sudo docker push csramesh1/version
```

Now we can see weather the image or repository has been pushed or not …Go to docker hub
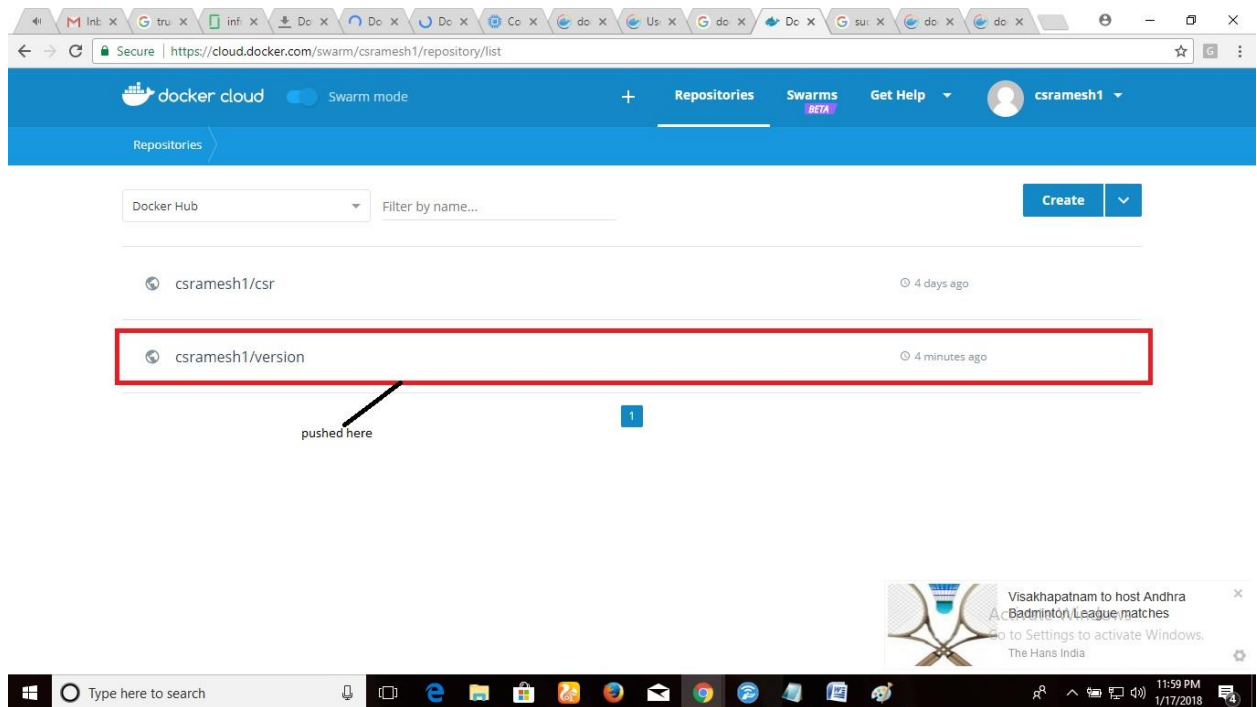
Now we will create our own customized image

1) **Create a repository**

   mkdir reponame

   cd reponame

   vi dockerfile (image file)

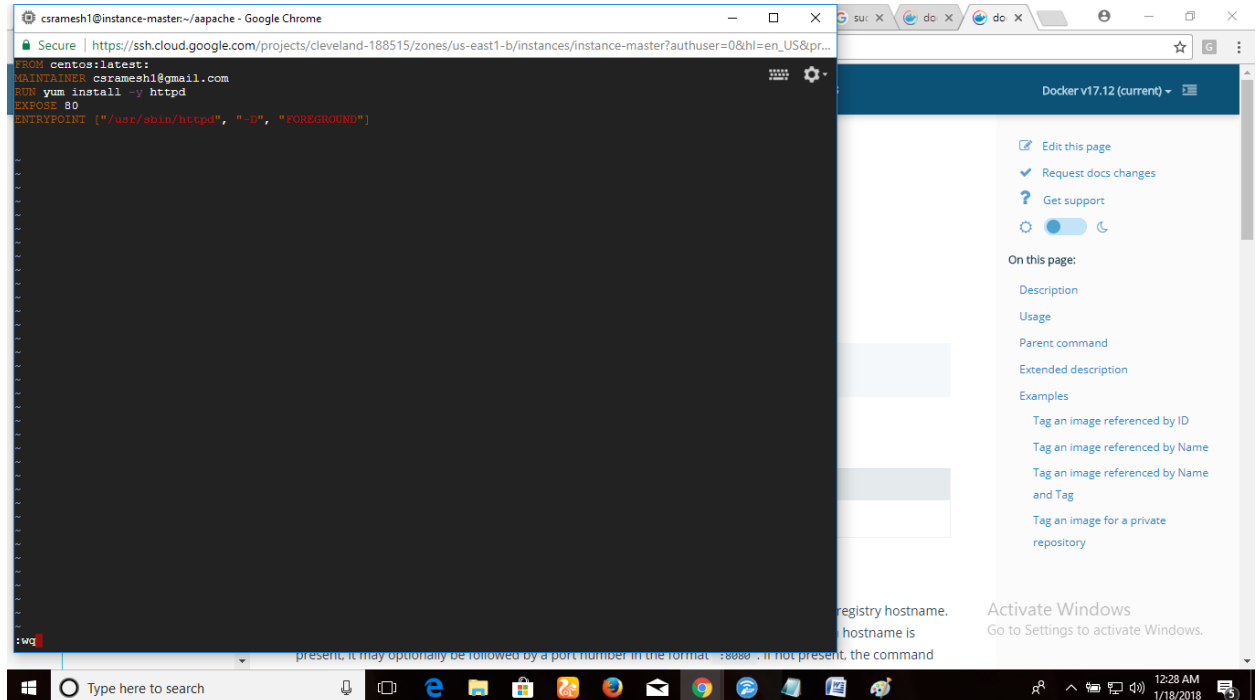2) **Paste the below as same (u can customize ur self)**

   FROM centos:latest

   MAINTAINER csramesh1@gmail.com

   RUN yum install -y httpd

   EXPOSE 80

   ENTRYPOINT ["/usr/sbin/httpd", "-D", "FOREGROUND"]

(above containt is case sensitive) or else it wont work

1st line is OS

2nd line is maintainer

3rd we installing a service apache
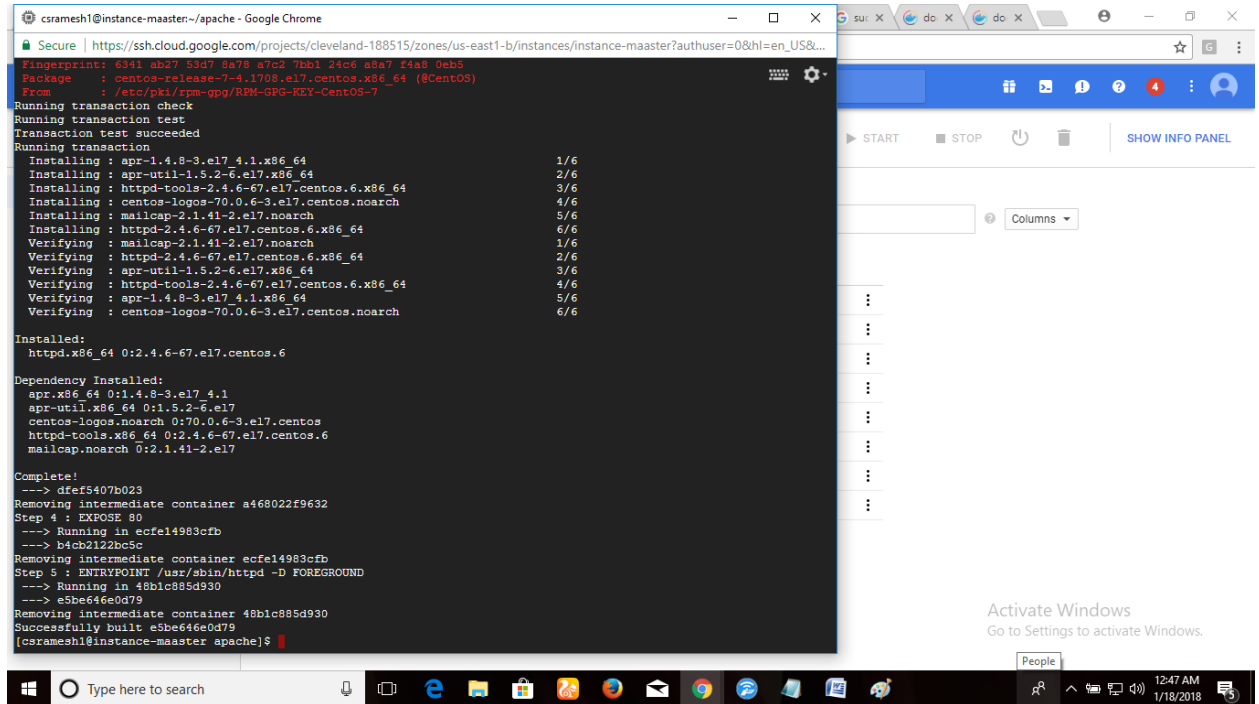
4th port number

5th how we run the services ?

Save it (esc :wq)

3) **We need to build image**

   sudo docker build -t apache:1.0 .

   (after running commond we can see successfully built u can see in above image)

4) **Now create the container and run it by following commond**
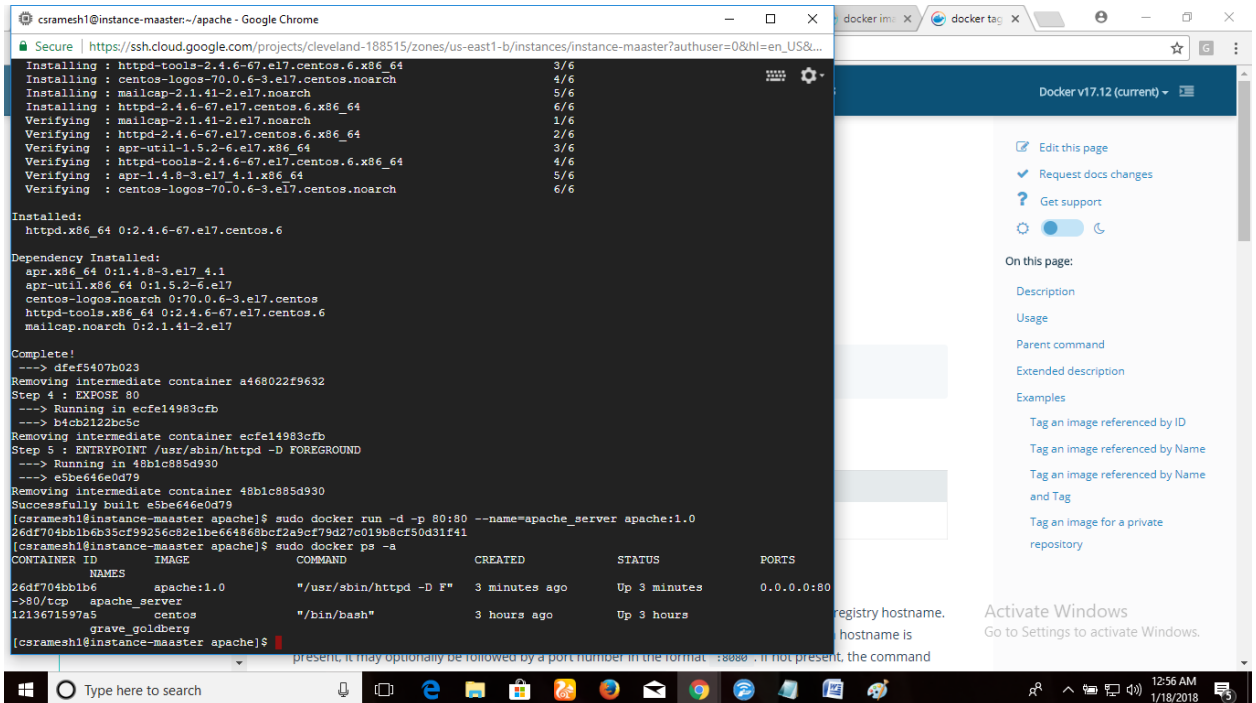
   sudo docker run -d -p 80:80 --name=apache_server apache:1.0
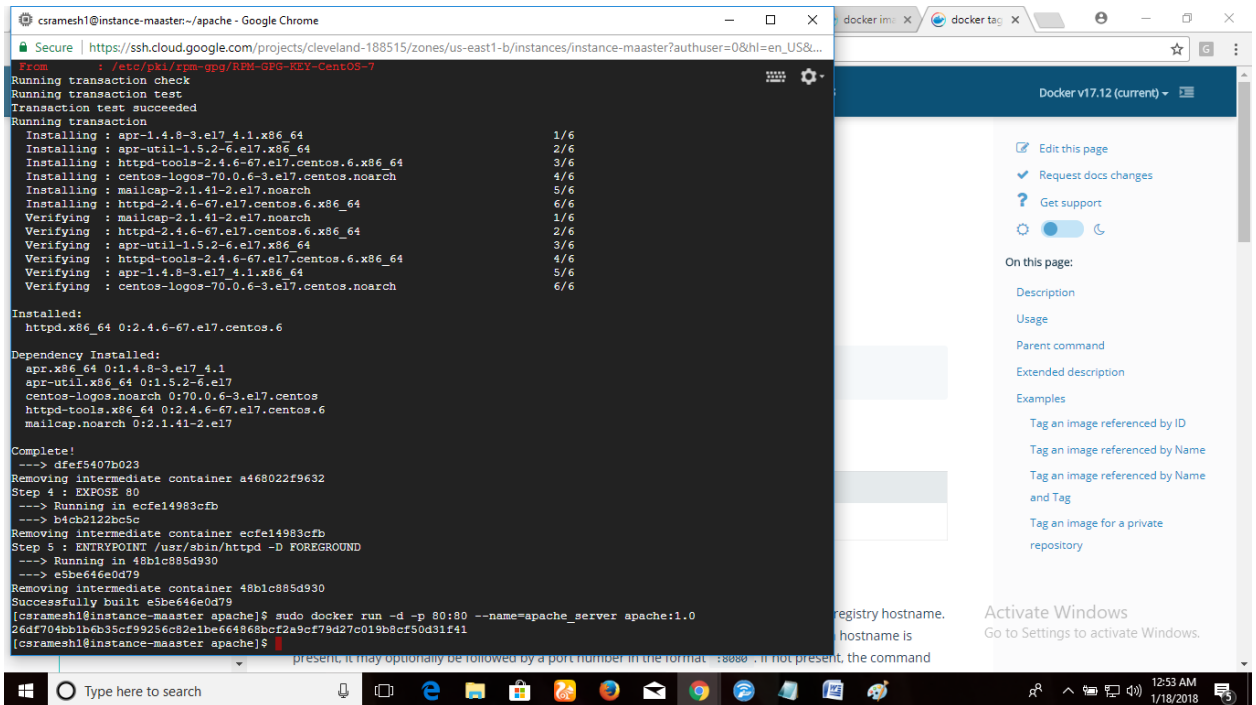
5) Now u can check it by commond

sudo docker ps –a

(u can see in below image container has been created)

U can see port number as per above command

6) (u can push or pull the images as per commonds)

sudo docker push imageid

sudo docker pull imageid

(please google other usefull commonds & how to createt customised images)

Ex: https://docs.docker.com/engine/reference/commandline/attach/