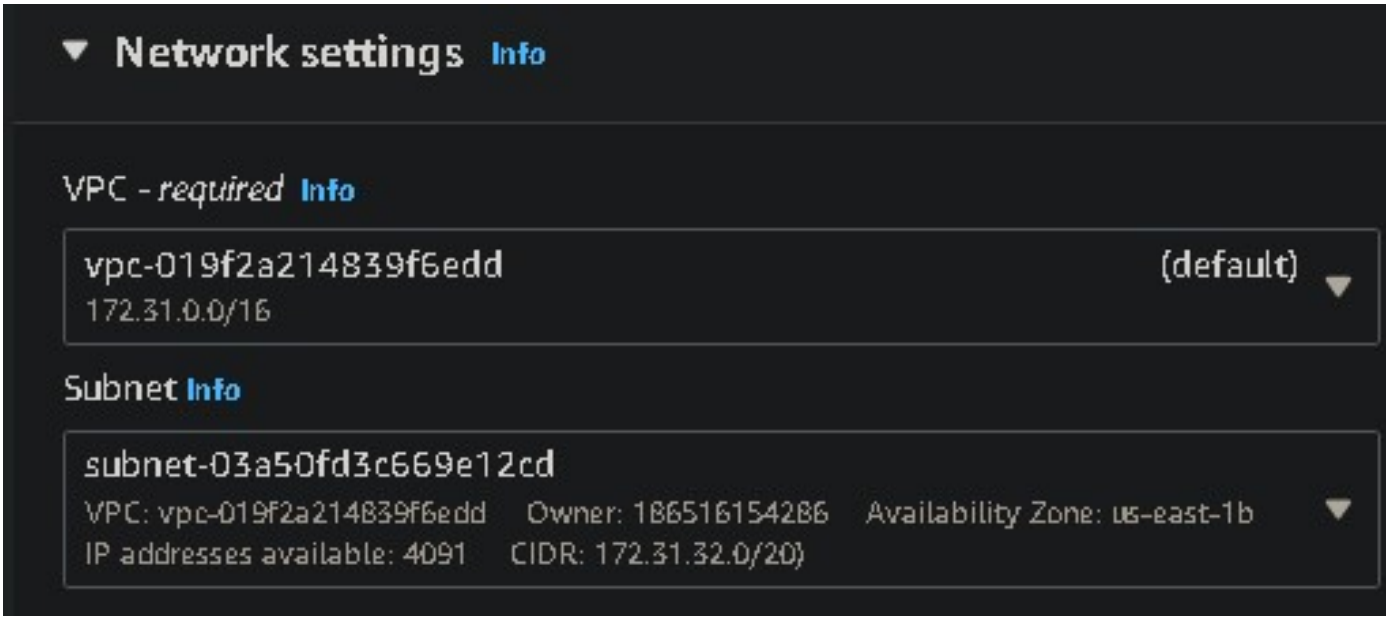
: Docker swarm :

Docker orchestration tool

3 instance running (one leader + 2 node)

Lauch instance : and edit network setting and select subnet as same for every instance

Also allow all tcp port in security group setting :



1st instance : master docker swarm

admin# docker swarm init *a master node will be created*

Copy that line to other instance

```
root@ip-172-31-36-122:/home/admin# docker swarm init
Swarm initialized: current node (vaqw0fuh02ru4z10p42vlgca3) is now a manager.

To add a worker to this swarm, run the following command:

    docker swarm join --token SWMTKN-1-258mg9wufaripwjk4h9j87ut2ezyg0v42amki138g
8b8cx7hn3-cj6nh416glvi71bg3jv848ef0 172.31.36.122:2377

To add a manager to this swarm, run 'docker swarm join-token manager' and follow
 the instructions.
```

#docker node ls (it will list nodes)

```
admin@ip-172-31-36-122: ~
root@ip-172-31-36-122:/home/admin# docker node ls
ID                            HOSTNAME              STATUS    AVAILABILITY   MANAGER STATUS   ENGINE VERSI
ON
vaqw0fuh02ru4z10p42vlgca3 *   ip-172-31-36-122      Ready     Active         Leader           20.10.5+dfsg
1
ggagot5l0dfy0zt3g6mk7odc5     ip-172-31-39-126      Ready     Active                          20.10.5+dfsg
1
8zrbse5p4z8lwpfv3lmij2tsm     ip-172-31-46-173      Ready     Active                          20.10.5+dfsg
1
```

#pull httpd images

#docker service create --name ___ -p 80:80 --replicas ‘n’ iamge name

```
root@ip-172-31-36-122:/home/admin# docker service create --name swarm -p 80:80 --replicas 3 httpd:lates
t
1y54b88ogifipuap8w91kmqsg
overall progress: 3 out of 3 tasks
1/3: running
2/3: running
3/3: running
verify: Service converged
root@ip-172-31-36-122:/home/admin#
```

#docker ps -a

List the port

2nd machine : node

#docker swarm join ……

```
ipwjk4h9j87ut2ezyg0v42amki138g8b8cx7hn3-cj6nh4l6glvi71bg3jv848ef0 172.31.36.122
2377
his node joined a swarm as a worker.
oot@ip-172-31-39-126:/home/admin#
```

#docker ps -a

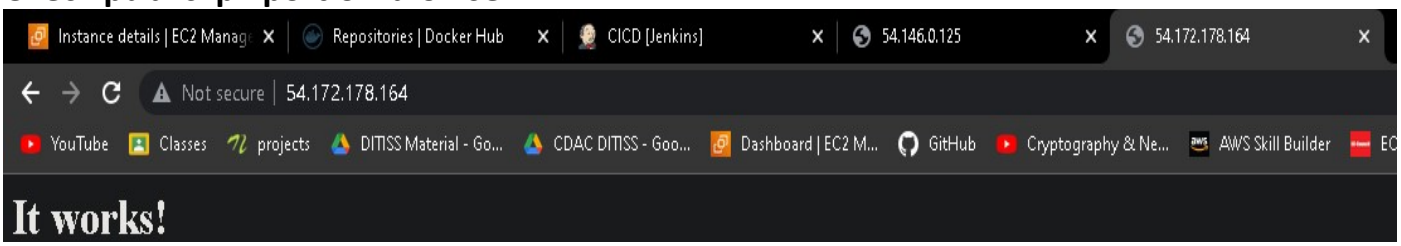
```
root@ip-172-31-39-126:/home/admin# docker ps -a
CONTAINER ID   IMAGE          COMMAND              CREATED              STATUS
          PORTS     NAMES
8dc8981f12fd   httpd:latest   "httpd-foreground"   About a minute ago   Up About
 a minute   80/tcp    swarm.1.l0k0sg9zydcpzlt7gmvmrzmwj
root@ip-172-31-39-126:/home/admin#
```

3rd Machine : node

#docker ……

#docker ps -a

Check public ip : port on browser .



Through docker file:

Instance 1 : master

#docker login

#mkdir __

#cd __

#nano Dockerfile

admin@ip-172-31-36-122: ~

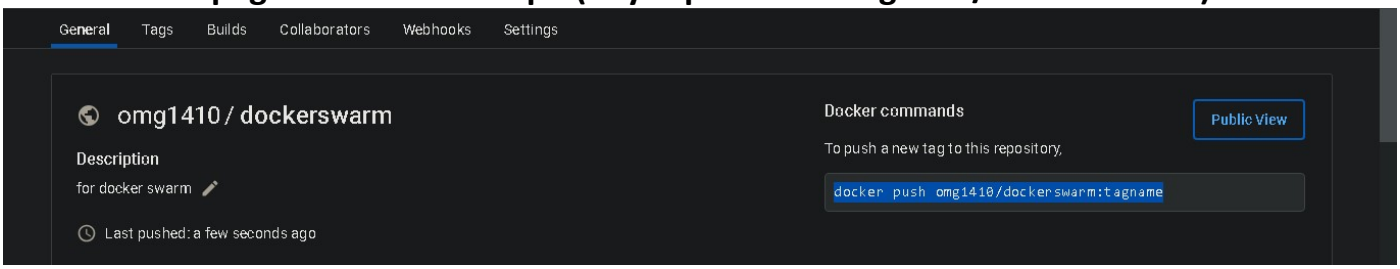
```
  GNU nano 5.4                                    Dockerfile
FROM httpd:latest
COPY index.html /usr/local/apache2/htdocs
EXPOSE 80
```

#nano index.html

admin@ip-172-31-36-122: ~

```
  GNU nano 5.4
<h1>Docker Swarm</h1>
```

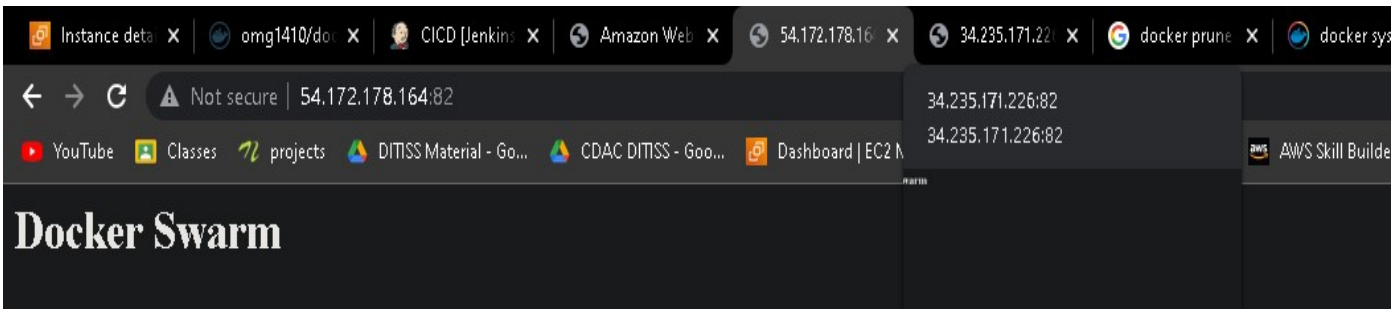
Go to docker page and create a repo (my repo name omg1410/dockerswarm)



#docker build -t omg1410/dockerswarm:latest .
#docker push omg1410/dockerswarm:latest
#docker service create --name demo2 -p 82:80 --replicas 3 omg1410/dockerswarm:latest

```
root@ip-172-31-36-122:/home/admin/apache# docker service create --name demo2 -p 82:80 --replicas 3 omg1
410/dockerswarm:latest
Error response from daemon: rpc error: code = AlreadyExists desc = name conflicts with an existing obje
ct: service demo2 already exists
root@ip-172-31-36-122:/home/admin/apache# docker service create --name demo3 -p 82:80 --replicas 3 omg1
410/dockerswarm:latest
omzqiliupcg7o27fk61wjvurr
overall progress: 3 out of 3 tasks
1/3: running
2/3: running
3/3: running
verify: Service converged
```

Go to browser : public ip of node : port



Docker service remove commands
#docker srvice ls
#docker service rm name /service id

```
root@ip-172-31-14-99:/home/admin# docker service ls
ID             NAME      MODE         REPLICAS   IMAGE          PORTS
xmv06zbvwppm   new       replicated   3/3        komal:latest   *:80->80/tcp
ntlbs6qm2h4v   new1      replicated   5/3        httpd:latest   *:81->80/tcp
root@ip-172-31-14-99:/home/admin# docker service rm new
new
root@ip-172-31-14-99:/home/admin# docker service rm new1
new1
root@ip-172-31-14-99:/home/admin# docker service ls
ID        NAME      MODE      REPLICAS   IMAGE     PORTS
root@ip-172-31-14-99:/home/admin# docker images
REPOSITORY   TAG       IMAGE ID       CREATED             SIZE
komal        latest    cd9f2a8c37a9   About an hour ago   168MB
httpd        latest    ad303d7f80f9   8 days ago          168MB
root@ip-172-31-14-99:/home/admin# docker ps -a
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
```