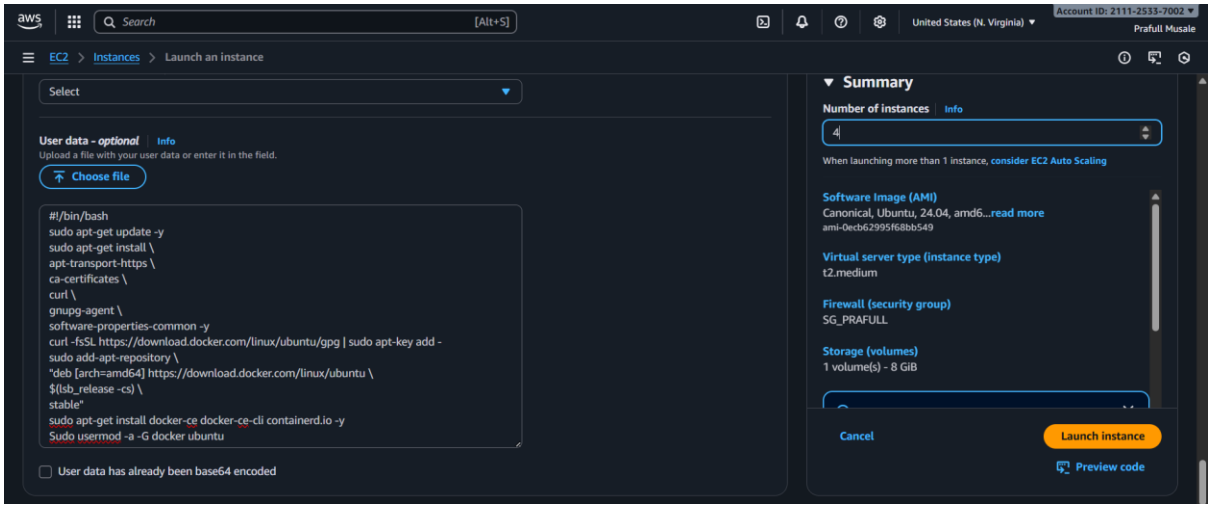
D Y PATIL INTERNATIONAL UNIVERSITY
AKURDI PUNE

School of Computer Science, Engineering and Applications(SCSEA)
B.Tech FIY (CCSA)
Subject : Cloud Automation & Devops (P)

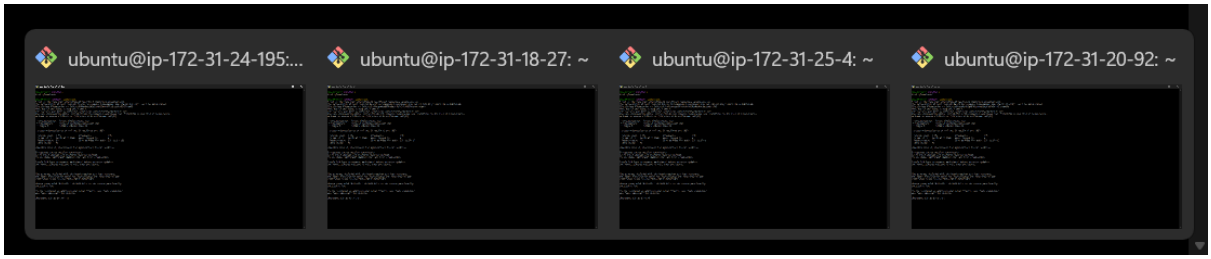
Name of the Student: **Pratik.M.Rebari** **PRN:** **20220802183**

Title of Practicle : **4. Setup the Docker swarm installation (master slave architecture)**

1. Launch 4 instance with docker installation



1. Connect all instance to terminal



2. Now, Fire $ sudo docker swarm init at 1st instance for give him leadership

```
ubuntu@ip-172-31-24-195:~$ sudo docker swarm init
Swarm initialized: current node (xr2iq9wci3jygl8orvt34m3nx) is now a manager.

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

    docker swarm join --token SWMTKN-1-3qcxdb5nvejucsv2csp940enlhhc333wlxzyj35vu54qr0bf0k-7oubd4f7165zxrw417m28b3qj 172.31.24.195:2377

To add a manager to this swarm, run 'docker swarm join-token manager' and follow the instructions.
ubuntu@ip-172-31-24-195:~$
```

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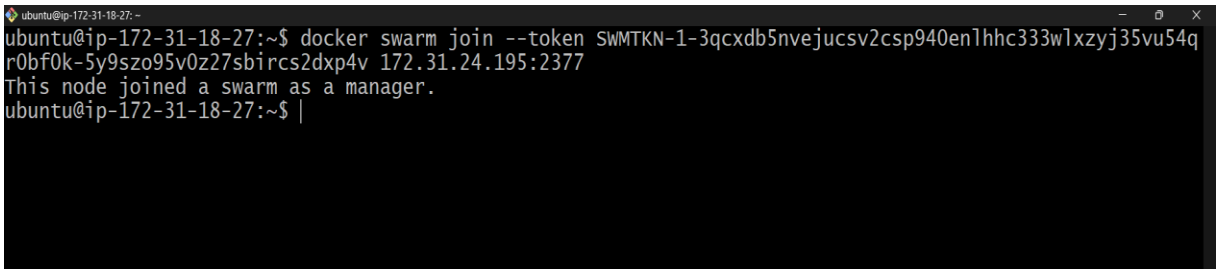
3. Now generate token for manager and worker with following commands

$ docker swarm join-token manager

$ docker swarm join-token worker

4. Now join 2nd instance as a manger with the help of token

Copy manager token and paste into 2nd instance



5. Join 3rd and 4th instance as a worker with the help of token

Copy worker token and paste into 3rd and 4th instance

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```
ubuntu@ip-172-31-25-4:~$ docker swarm join --token SWMTKN-1-3qcxdb5nvejucsv2csp940enlh
hc333wlxzyj35vu54qr0bf0k-7oubd4f7165zxrw417m28b3qj 172.31.24.195:2377
This node joined a swarm as a worker.
ubuntu@ip-172-31-25-4:~$
```

```
ubuntu@ip-172-31-20-92:~$ docker swarm join --token SWMTKN-1-3qcxdb5nvejucsv2csp940enl
hhc333wlxzyj35vu54qr0bf0k-7oubd4f7165zxrw417m28b3qj 172.31.24.195:2377
This node joined a swarm as a worker.
ubuntu@ip-172-31-20-92:~$
```

6. Now check which node is worker and which node is manager with the help of following command . This command fire on manager node because only manager or leader can show this . -> $ docker node ls

```
ubuntu@ip-172-31-24-195:~$ docker node ls
ID                            HOSTNAME            STATUS    AVAILABILITY   MANAGER STATUS   ENG
INE VERSION
z0fyvuh1hyt06dz676oly2e8m     ip-172-31-18-27     Ready     Active         Reachable        29.
0.2
aodb8f1fbdguax83e4xyxrrmq     ip-172-31-20-92     Ready     Active                          29.
0.2
xr2iq9wci3jygl8orvt34m3nx *   ip-172-31-24-195    Ready     Active         Leader           29.
0.2
atiwsk98cxw05ydhitdxuac1s     ip-172-31-25-4      Ready     Active                          29.
0.2
ubuntu@ip-172-31-24-195:~$
```

7. Now same command fire on worker node

Check worker has access or not

```
ubuntu@ip-172-31-25-4:~$ docker swarm join --token SWMTKN-1-3qcxdb5nvejucsv2csp940enlh
hc333wlxzyj35vu54qr0bf0k-7oubd4f7165zxrw417m28b3qj 172.31.24.195:2377
This node joined a swarm as a worker.
ubuntu@ip-172-31-25-4:~$ sudo docker node ls
Error response from daemon: This node is not a swarm manager. Worker nodes can't be us
ed to view or modify cluster state. Please run this command on a manager node or promo
te the current node to a manager.
ubuntu@ip-172-31-25-4:~$
```