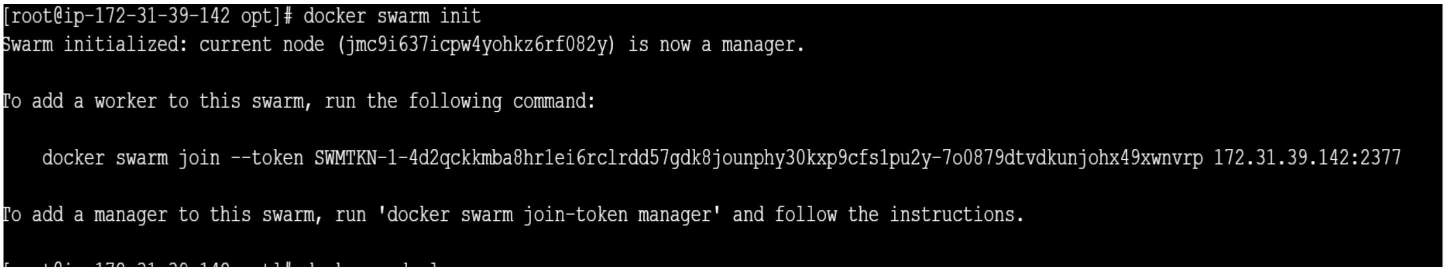
Creation of Docker Swarm

In Swarm, containers are launched using services. A service is a group of containers of the same image that enables the scaling of applications. Before you can deploy a service in Docker Swarm, you must have at least one node deployed.

There are two types of nodes in Docker Swarm:

1. Manager node. Maintains cluster management tasks
2. Worker node. Receives and executes tasks from the manager node



```
[root@ip-172-31-39-142 opt]# docker swarm init
Swarm initialized: current node (jmc9i637icpw4yohkz6rf082y) is now a manager.

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

    docker swarm join --token SWMTKN-1-4d2qckkmba8hr1ei6rclrdd57gdk8jounphy30kxp9cfs1pu2y-7o0879dtvdkunjohx49xwnvrp 172.31.39.142:2377

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

Step 1: Update Software Repositories

Run the following command on the terminal:

apt-get update

Step 2: Install Docker

systemctl start docker

Systemctl status docker

Step 3: Verify Docker Version

To check the installed Docker version, enter the following command:

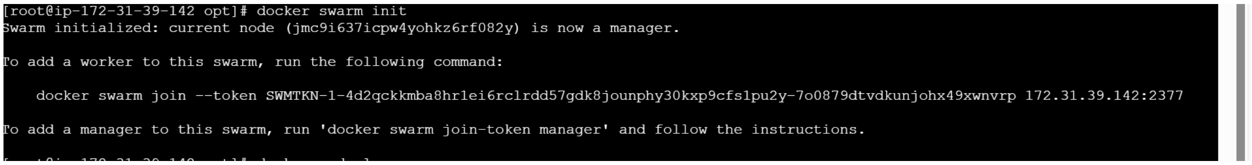
docker –version

Step 4: Create Swarm

Here create a cluster with the IP Address of the manager node

Docker Swarm init

Subsequently,you should see the following output



```
[root@ip-172-31-39-142 opt]# docker swarm init
Swarm initialized: current node (jmc9i637icpw4yohkz6rf082y) is now a manager.

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

    docker swarm join --token SWMTKN-1-4d2qckkmba8hr1ei6rclrdd57gdk8jounphy30kxp9cfs1pu2y-7o0879dtvdkunjohx49xwnvrp 172.31.39.142:2377

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

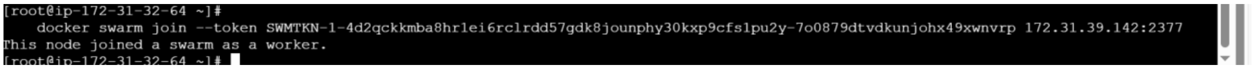
Manager node

This means that the manager node is successfully configured.

Now, add worker node by copying the command of the “swarm init” and paste the output onto the worker node:

docker swarm join --token SWMTKN-1-4d2qckkmba8hr1ei6rclrdd57gdk8jounphy30kxp9cfs1pu2y-7o0879dtvdkunjohx49xwnvrp 172.31.39.142:2377

Your worker node is also created if you see the following output:



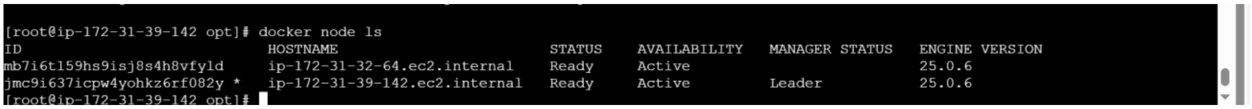
```
[root@ip-172-31-32-64 ~]#
    docker swarm join --token SWMTKN-1-4d2qckkmba8hr1ei6rclrdd57gdk8jounphy30kxp9cfs1pu2y-7o0879dtvdkunjohx49xwnvrp 172.31.39.142:2377
This node joined a swarm as a worker.
[root@ip-172-31-32-64 ~]#
```

work node

Now, go back to the manager node and execute the following command to list the worker node:

docker node ls

Here, you must see the worker node in the following output:



```
[root@ip-172-31-39-142 opt]# docker node ls
ID                            HOSTNAME                       STATUS    AVAILABILITY   MANAGER STATUS   ENGINE VERSION
mb7i6t159hs9isj8s4h8vfyld     ip-172-31-32-64.ec2.internal   Ready     Active                          25.0.6
jmc9i637icpw4yohkz6rf082y *   ip-172-31-39-142.ec2.internal  Ready     Active         Leader           25.0.6
[root@ip-172-31-39-142 opt]#
```

Swarm Cluster - Docker Swarm

The above image shows you have created the Swarm Cluster successfully. Now, launch the service in Swarm Mode.

Go to your the manager node and execute the command below to deploy a service:

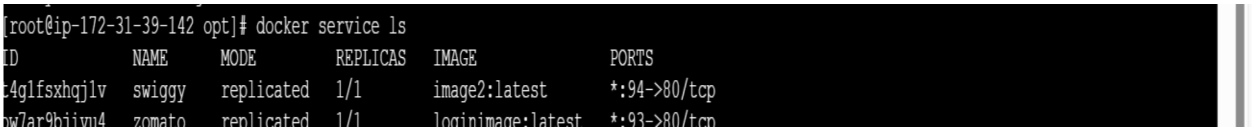
Docker service create –name zomato –publish 93:80 loginimage

By executing the above command, you can access the loginform from the remote system.

To see the output, you can check the services with the following command:

docker service ls

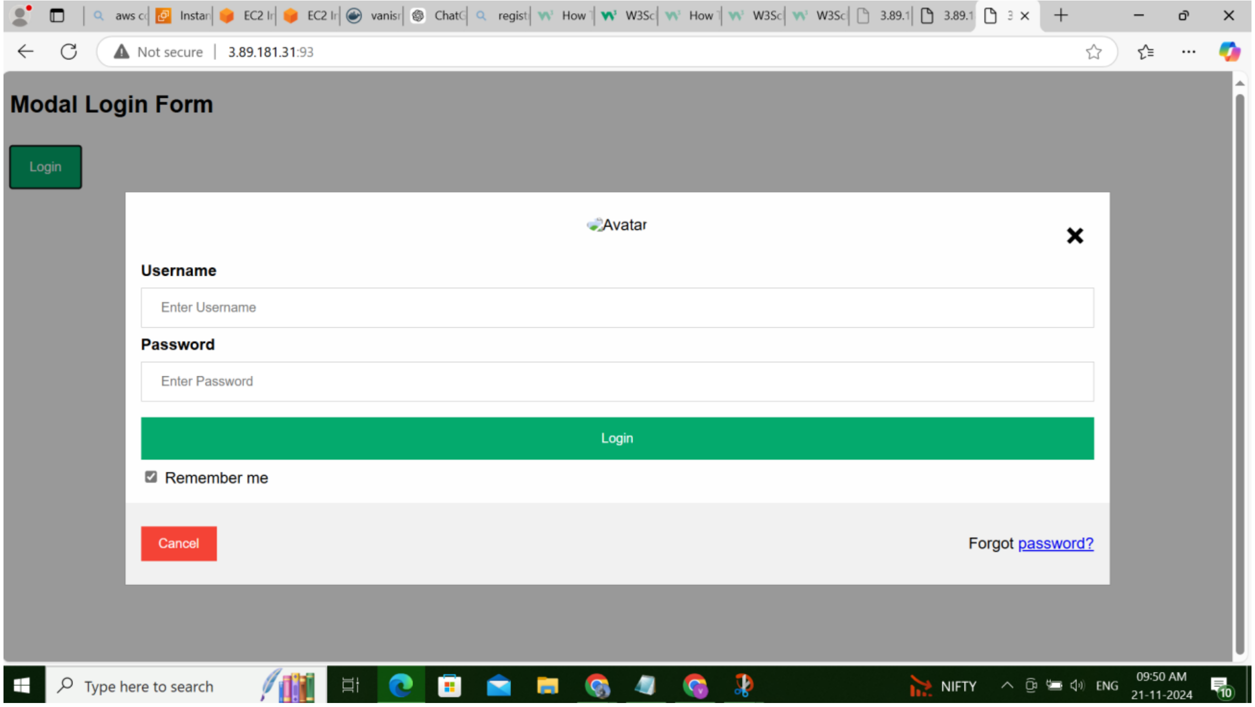
Finally, you should be able to see the following output:



```
[root@ip-172-31-39-142 opt]# docker service ls
ID            NAME     MODE        REPLICAS   IMAGE               PORTS
t4g1fsxhqj1v  swiggy   replicated  1/1        image2:latest       *:94->80/tcp
pw7ar9bjjyu4  zomato   replicated  1/1        loginimage:latest   *:93->80/tcp
```

Finally, you should be able to see the following output:

After creating the services we able to public IP Address.



Modal Login Form

Login

Avatar

Username

Enter Username

Password

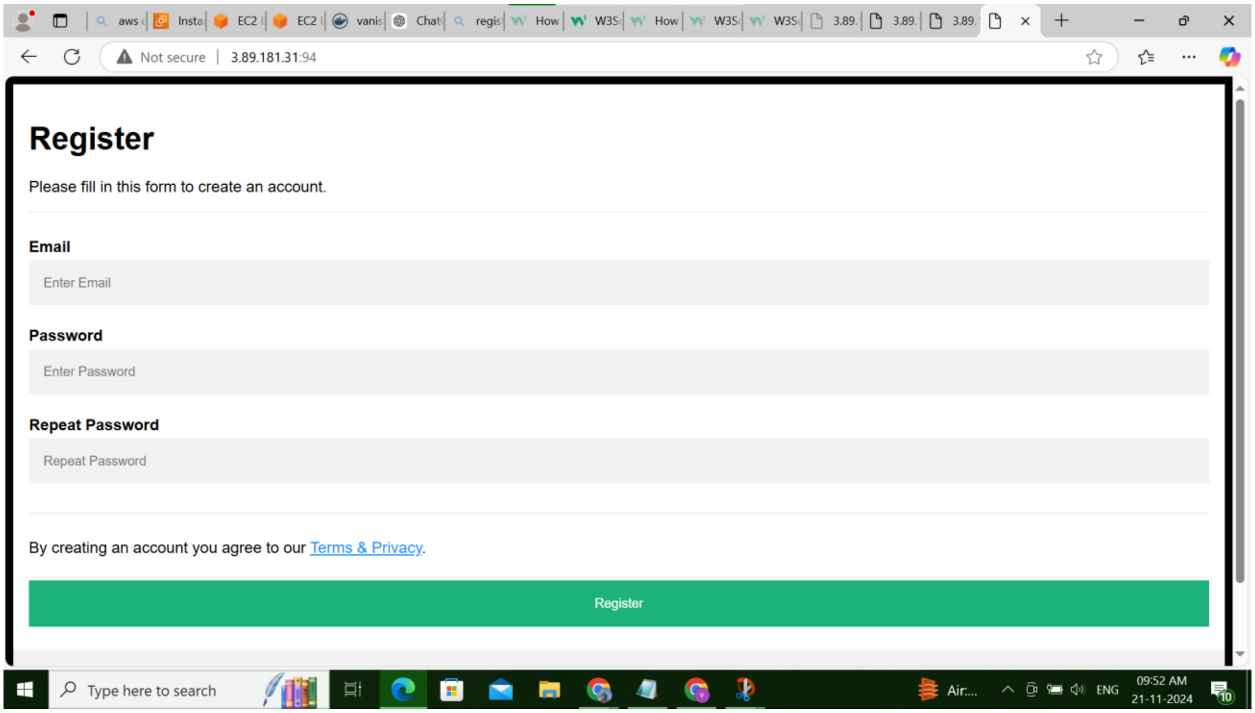
Enter Password

Login

☑ Remember me

Cancel

Forgot password?



Register

Please fill in this form to create an account.

Email

Enter Email

Password

Enter Password

Repeat Password

Repeat Password

By creating an account you agree to our Terms & Privacy.

Register