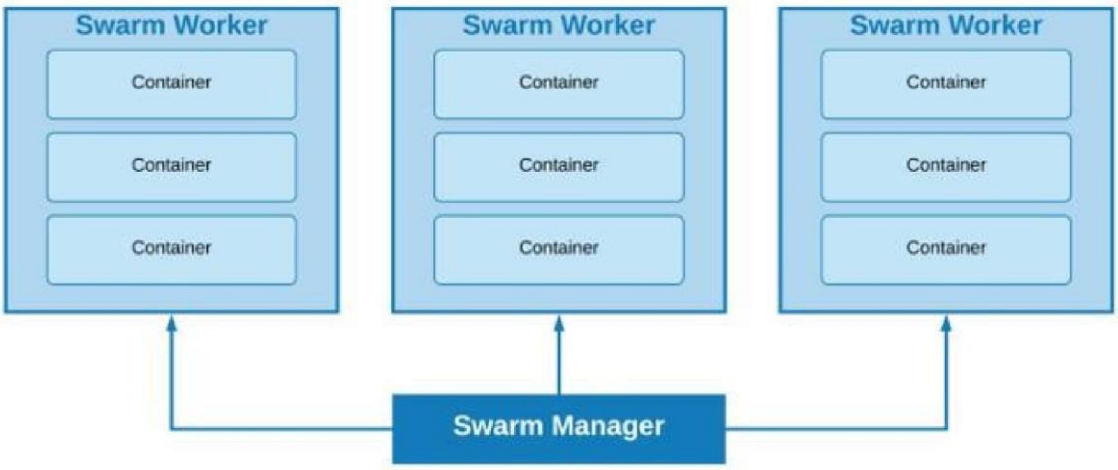
DOCKER SWARM

What is Docker Swarm

1. Docker swarm is an orchestration service it is used to manage multiple containers at the same time
2. It is implemented by cluster
3. Docker Engine helps to create docker swarm
4. Docker swarm is having two nodes
    - Manager Node
    - Worker Node

Docker Swarm Architecture



Step 1: Launch one instance and connect with the created instance.

- Switch to the root user by using the command **"sudo su –"**.

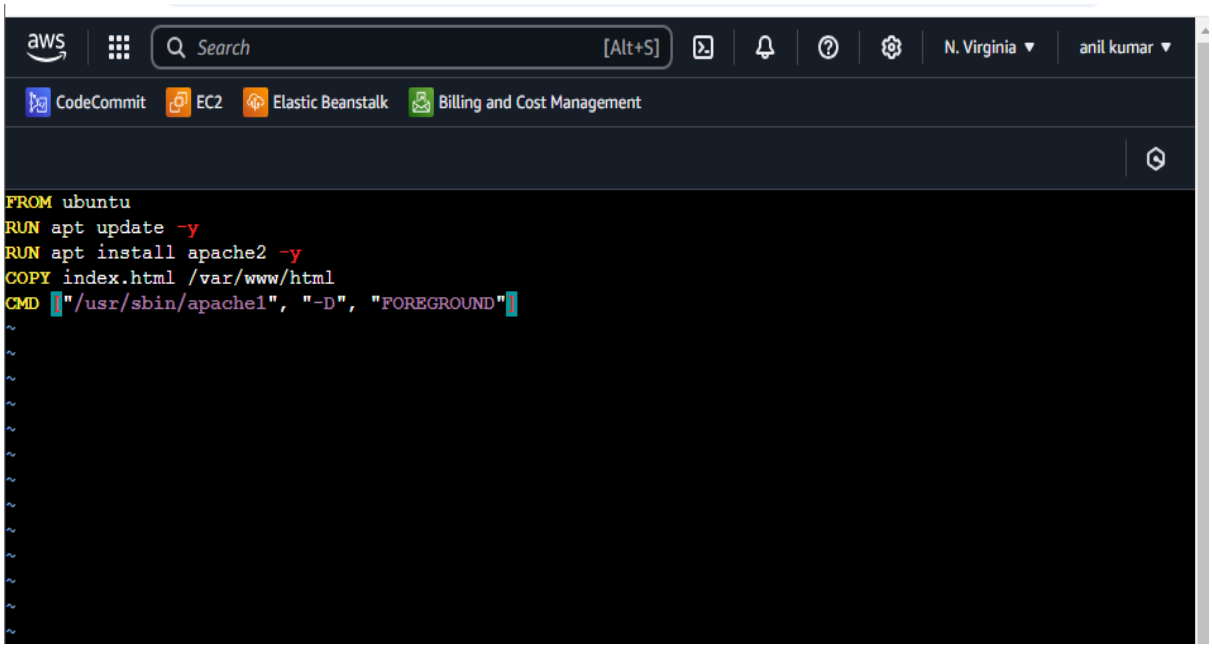
Step 2: Install the docker in a terminal and start the docker and checkthe status by using the following commands.

- **yum install docker** - Install docker
- **systemctl start docker** -To start docker

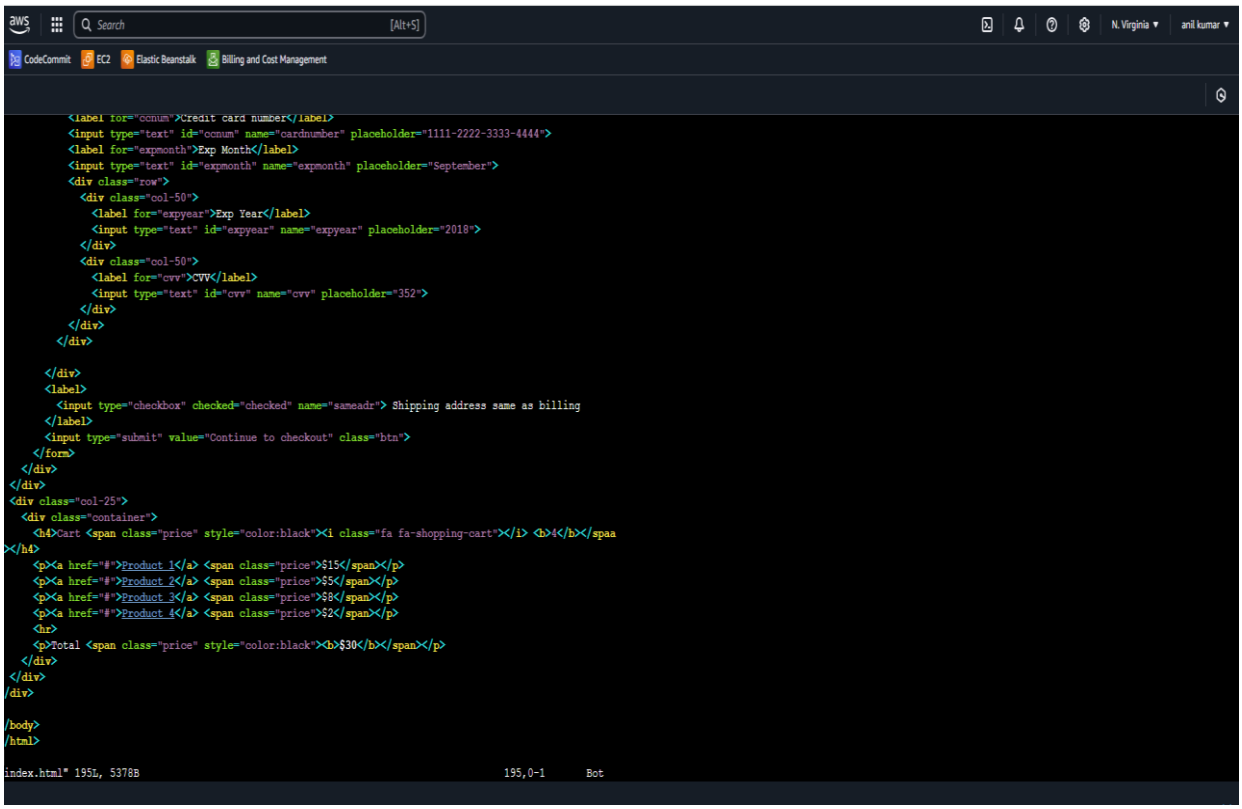
Step 4: Perform the command called **“vi index.html”.** Here insert the html code in that as shown in the below figure.

- **systemctl status docker** -To check the status of docker

Step 3:Create the docker file by using the command **“vi Dockerfile”** in that you may perform the following instruction as shown in the below figure.

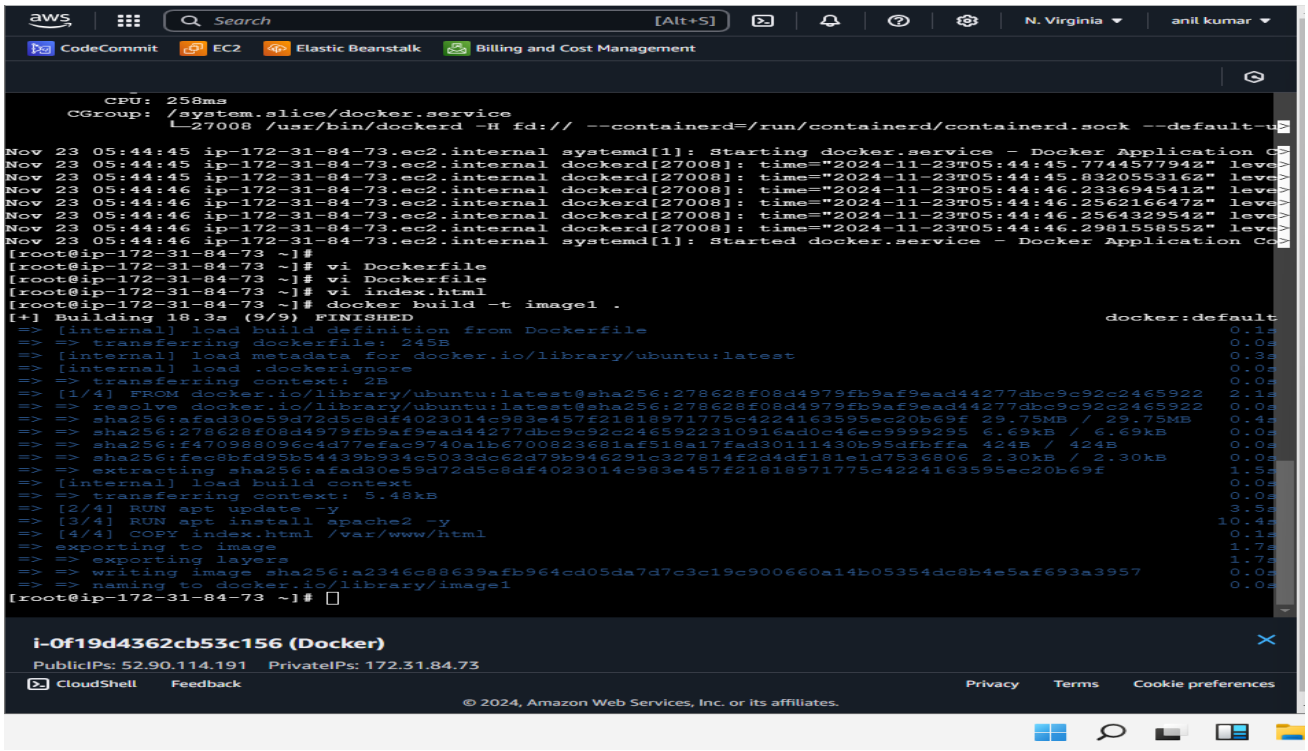


Step 4 : Perform the command called “vi index.html”. Here insert the html code in that as shown in the below figure.



Step 5: Build the image by using the command.

- **“docker build -t image1 .”** as shown in the below figure.



Step 6: Switch to the docker hub and create on repository.

- Switch to the terminal perform the command called **“docker tag image1 anilvasa/repo”**

Step 7: Perform the command **“docker login”.**

- Here have to provide the username and password of a dockerhub account, Example.
- Username : **********
- Password :**********

Step 8 : Push the image into your docker hub repository by using the following command.

- **docker tag image1 anilvasa/repo**

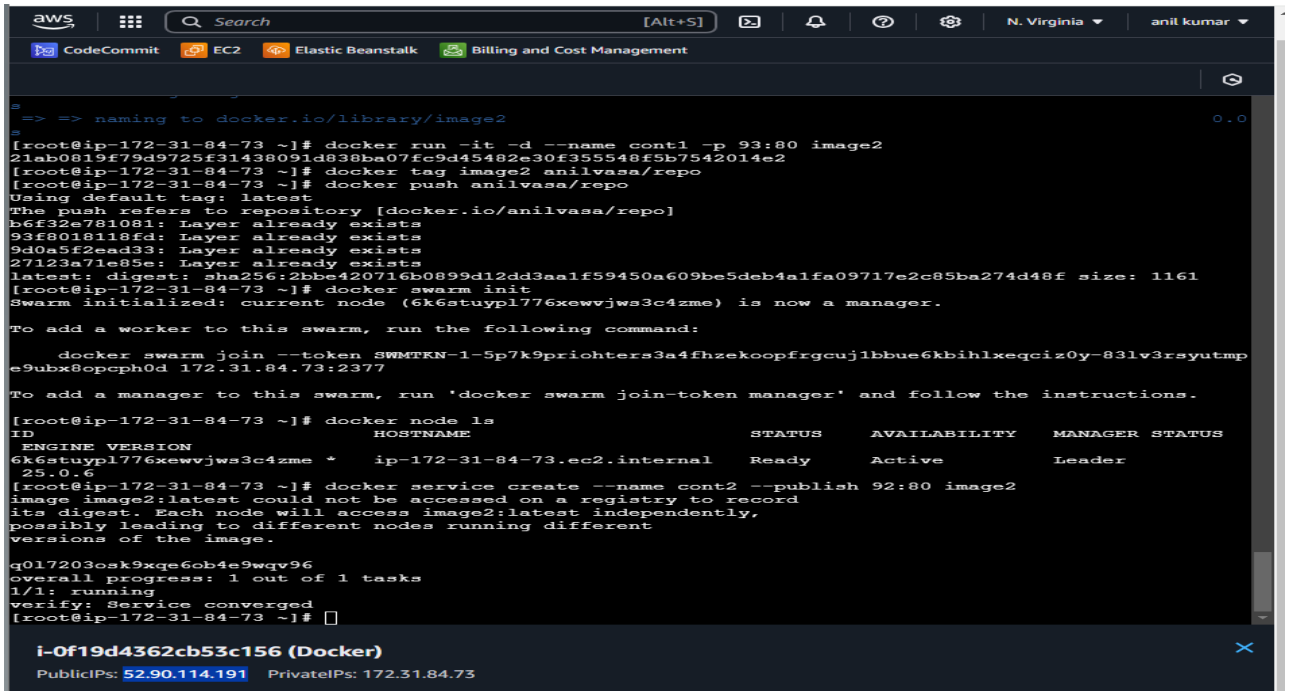
Step 9 : Initalize the swarm docker by using the following command.

- **“docker swarm init”** - Used to create the Manager node and it generates the token as shown in the below figure.

```
[root@ip-172-31-4-167 ~]# docker swarm init
Swarm initialized: current node (kw364ph1k1ih0y5q5va3ege66) is now a manager.

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

    docker swarm join --token SWMTKN-1-1n3h4tjnxdsfw3qzeo9n1a9ze6bszi24poe737z17rj6yqsxlw-0ykcwbha11hgqoa50x114ve4q 172.31.4.167:2377

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

Step 10: Create the service by using the following command.

- **“docker service create –name cont2 –publish 92:80 image2”.**
- Here the service is created as well as the container also created as shown in the given figure.



- Copy the public IP and enter in a google with the port number you can access output as shown in the figure.