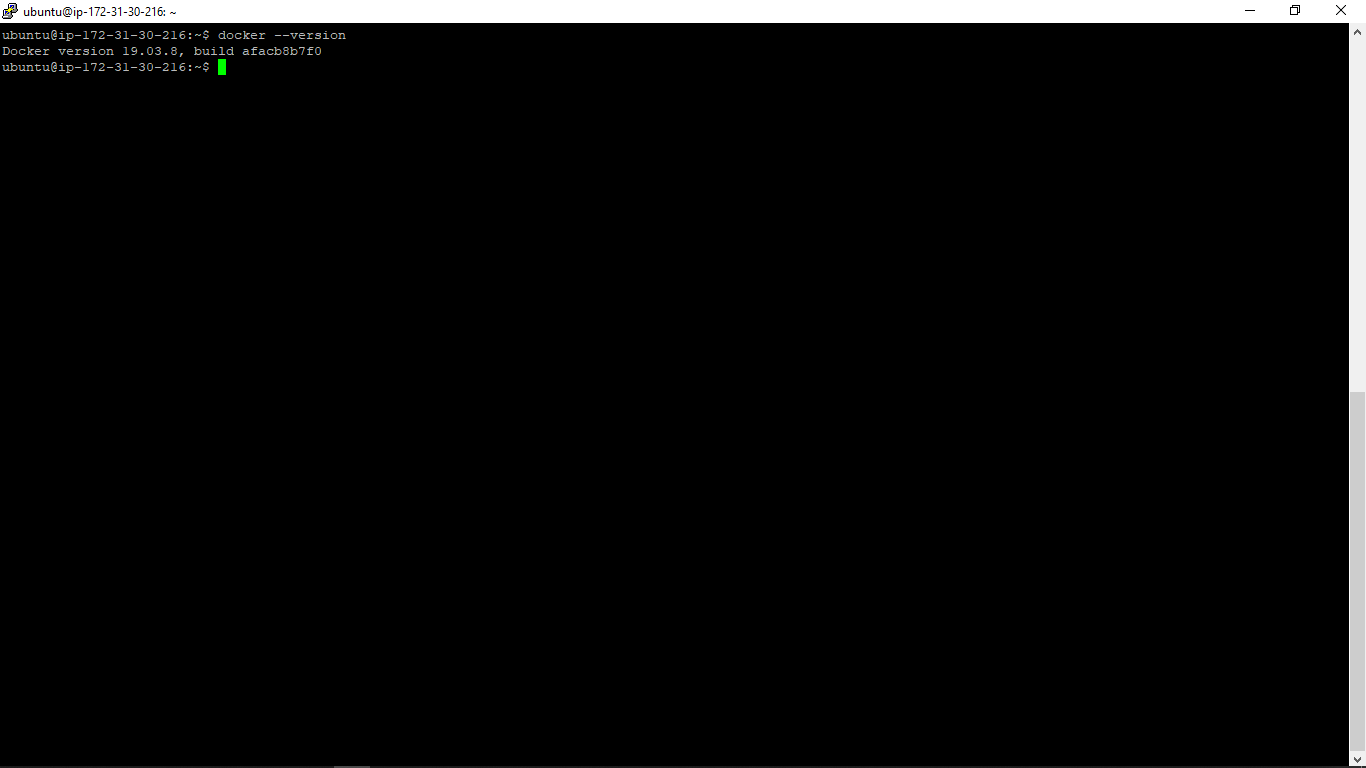
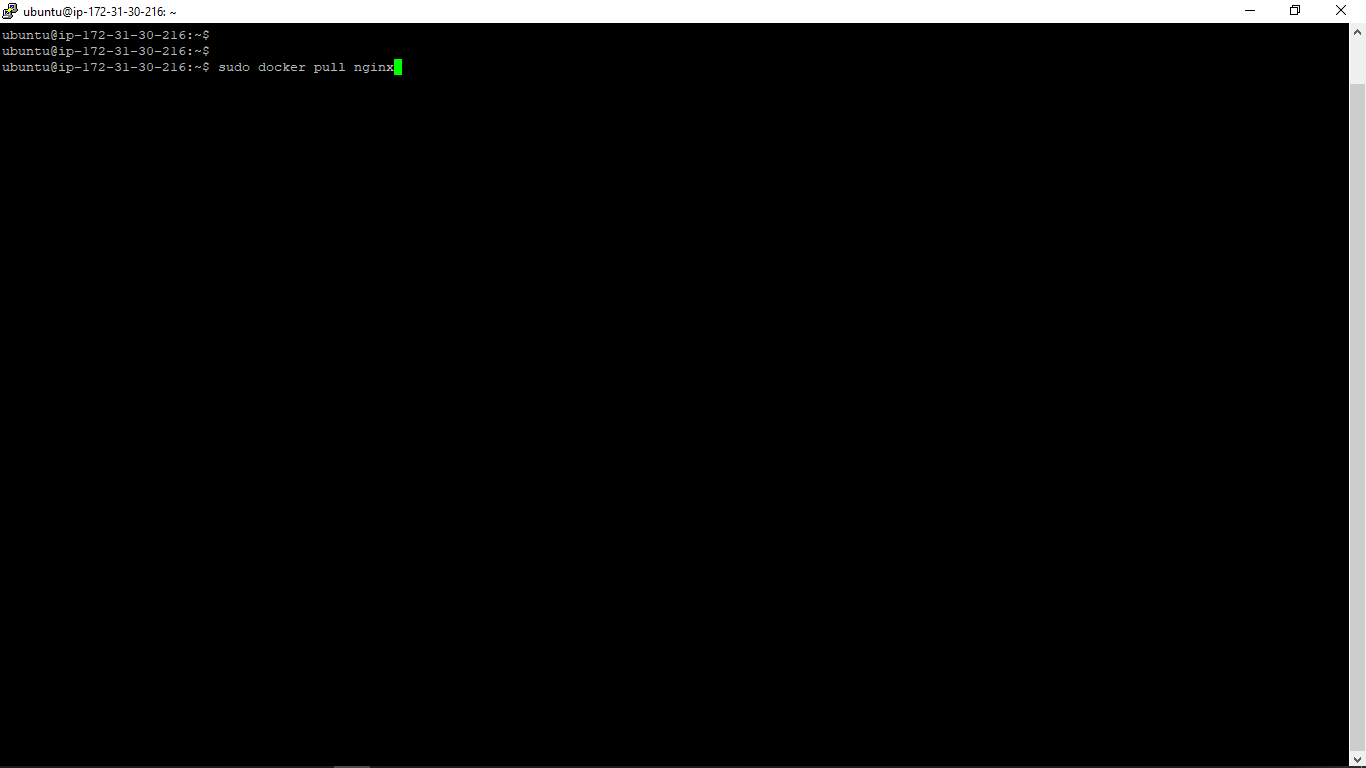
**Level 0**

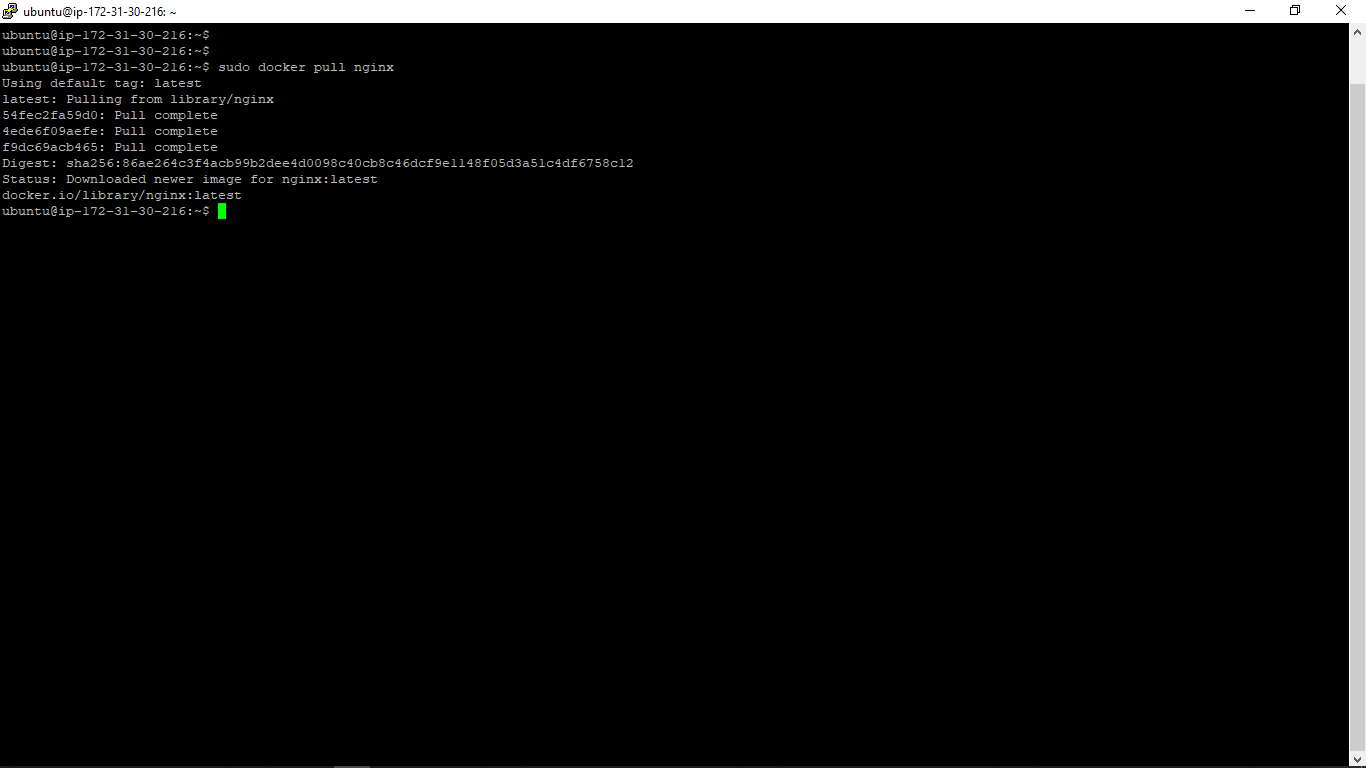
1. Setup ‘NGINX’ server using docker.

Installed docker on ubuntu vm using ec2 instance



Pulled the nginx image from docker hub as shown below:



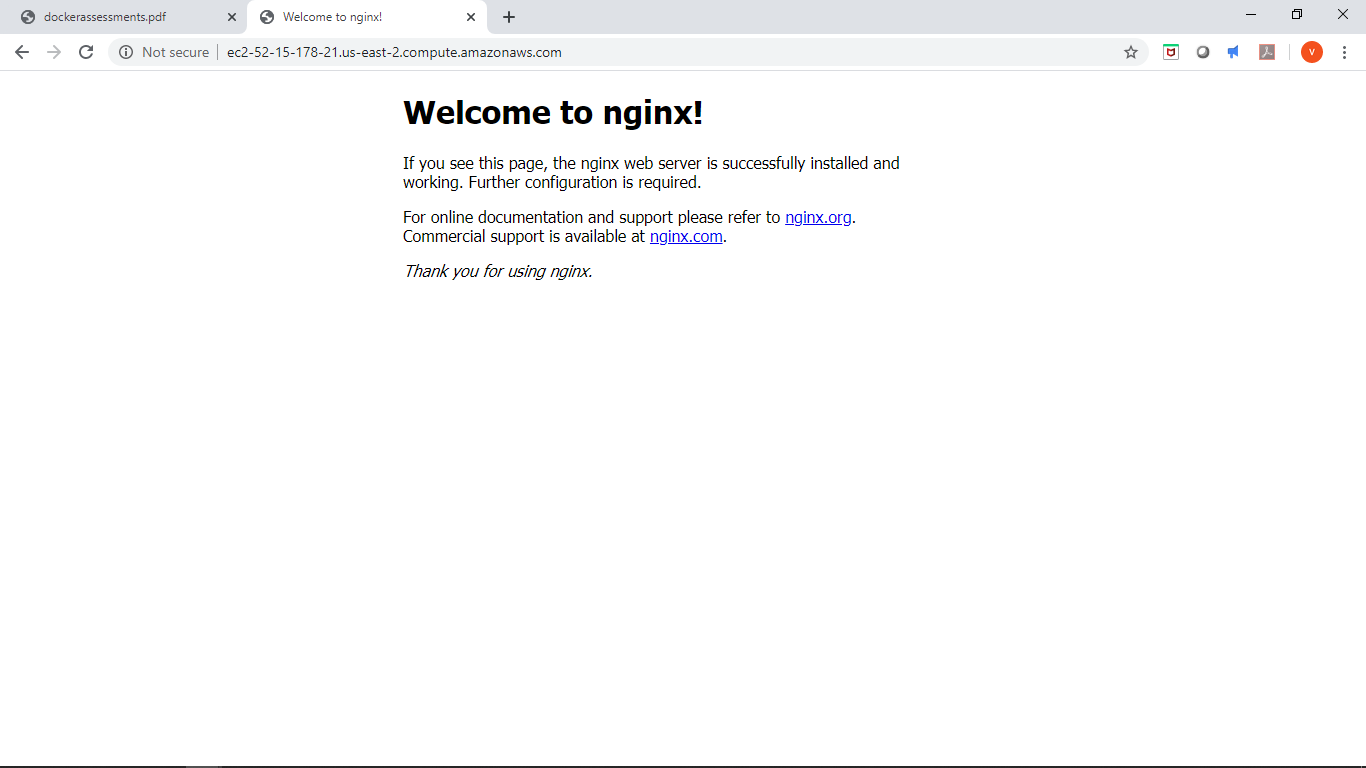


Created a docker container named docker-nginx from the above nginx image using the below command:

sudo docker run --name docker-nginx -p 8080:8080 nginx

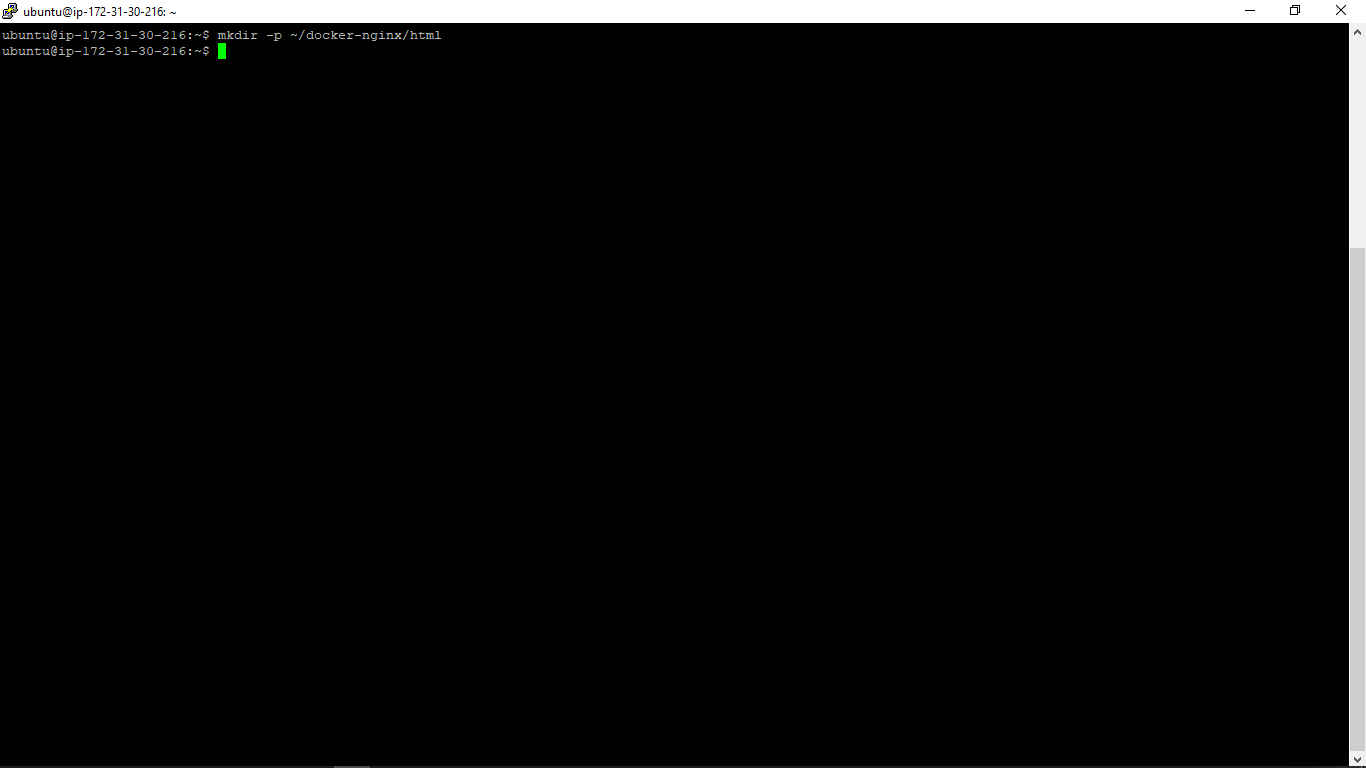


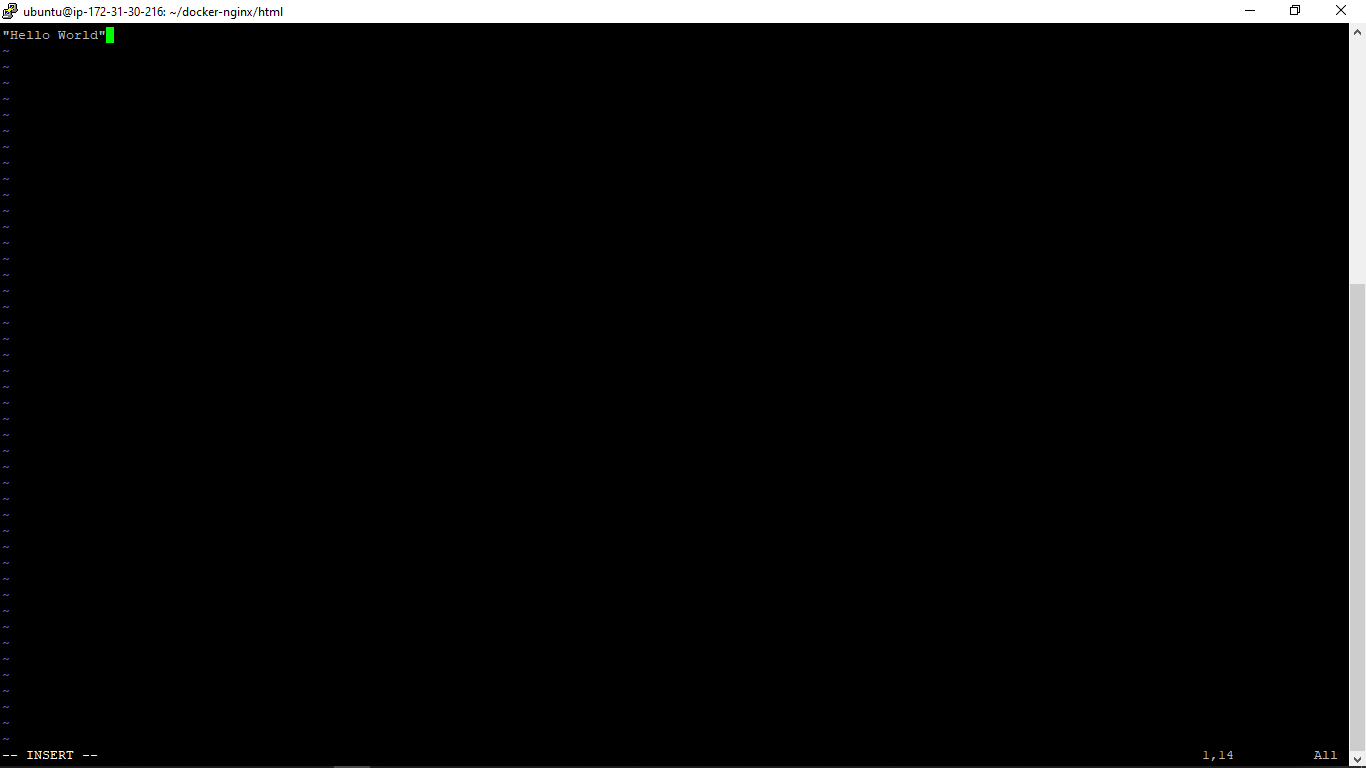
Nginx installed at the EC2 instance public IP



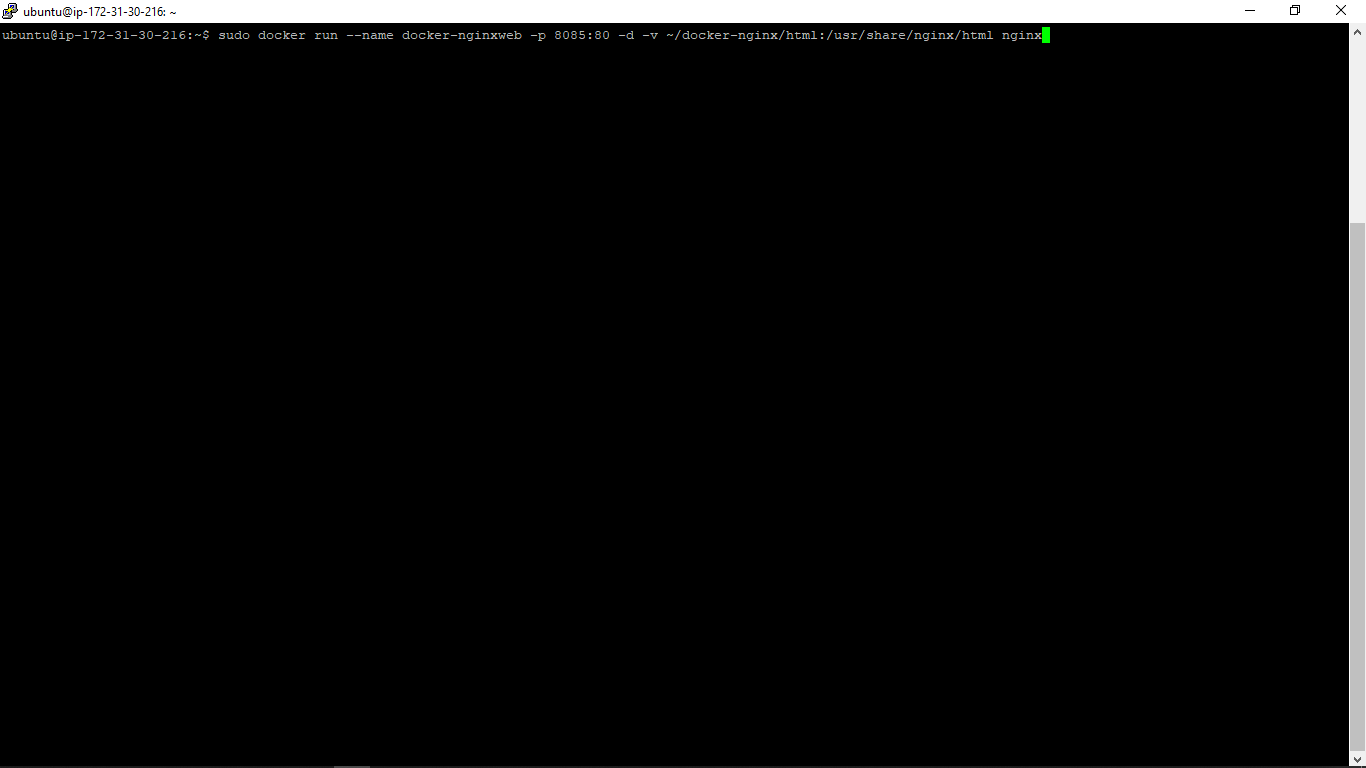
2.Setup simple hello world website using ‘NGINX’ server using docker.

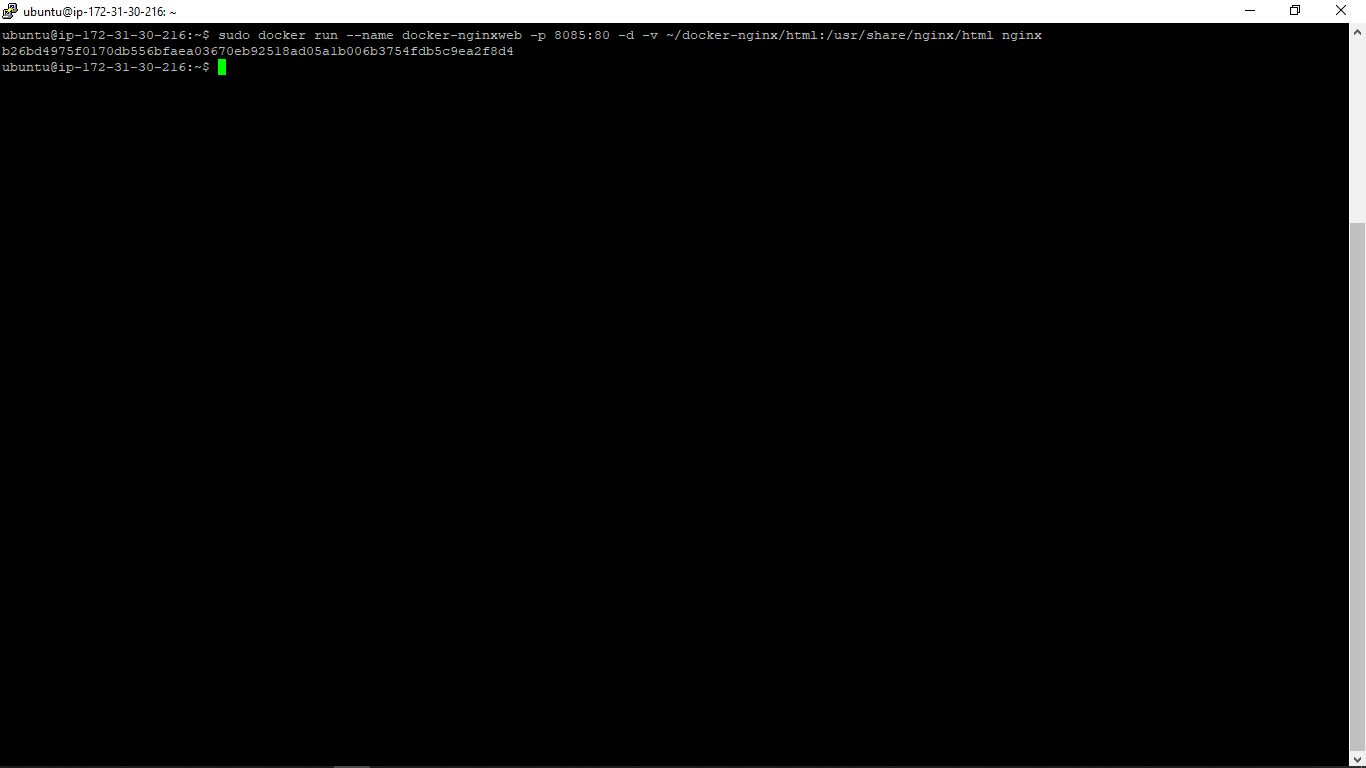
Created a directory to store a index.html file with a simple text

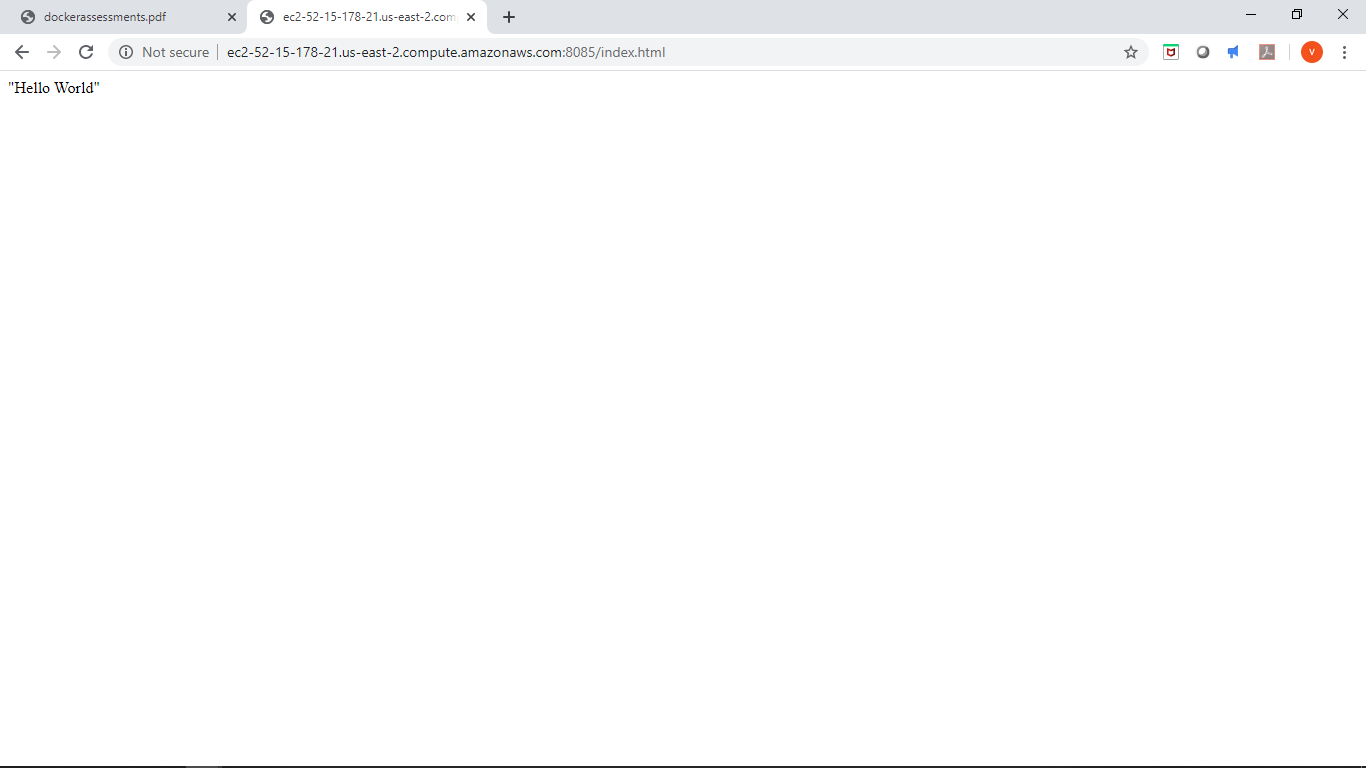




Created a new container using the existing nginx image, with a port forwarding to 8085 and used -v to map the local folder which has the index.html to a path in the container /usr/share/nginx/html to access the index.html created by us.

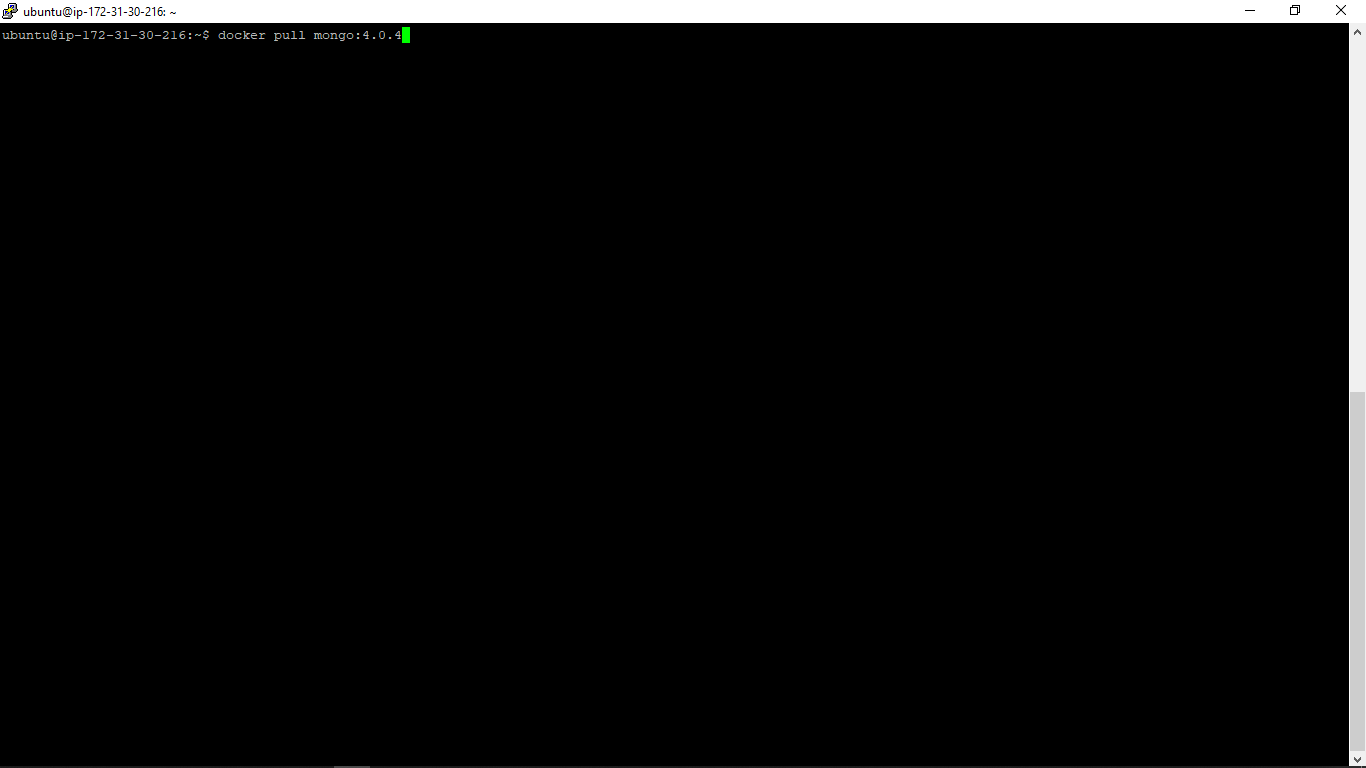


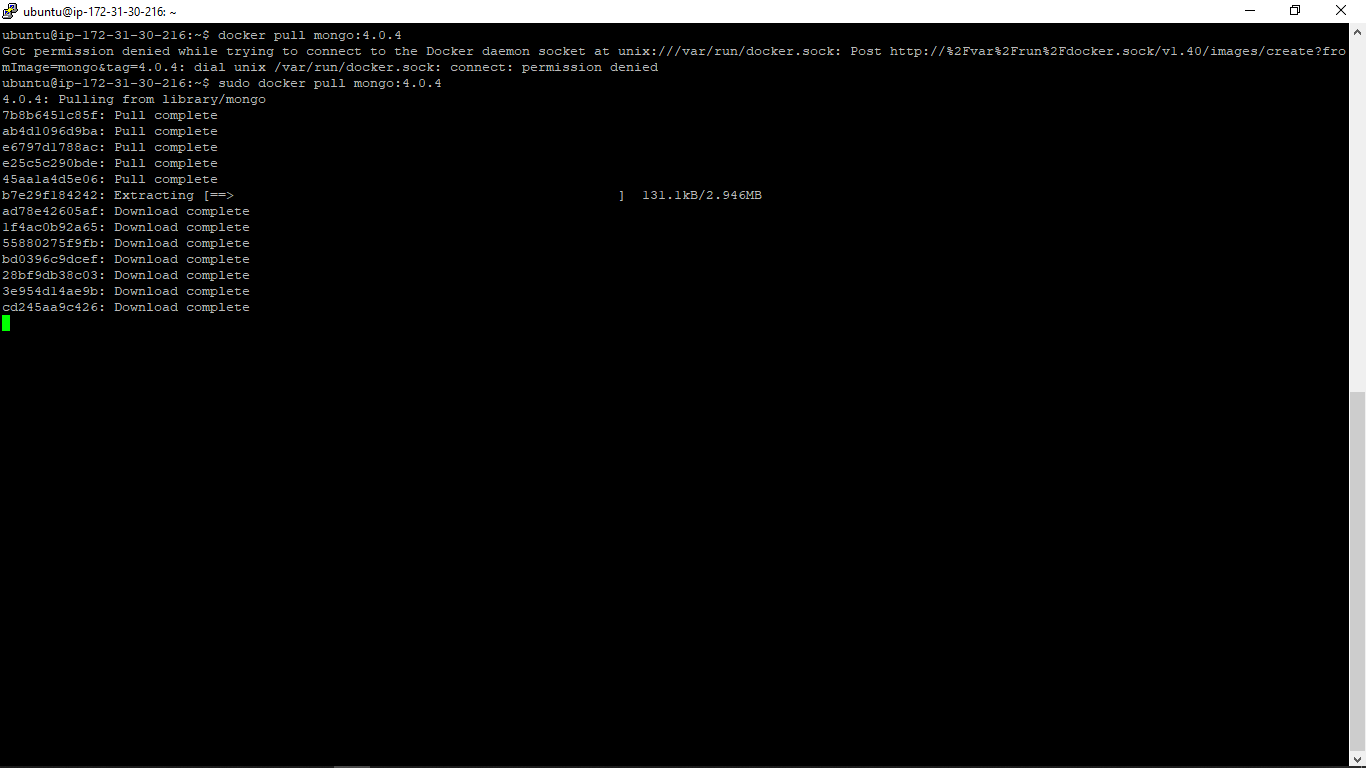




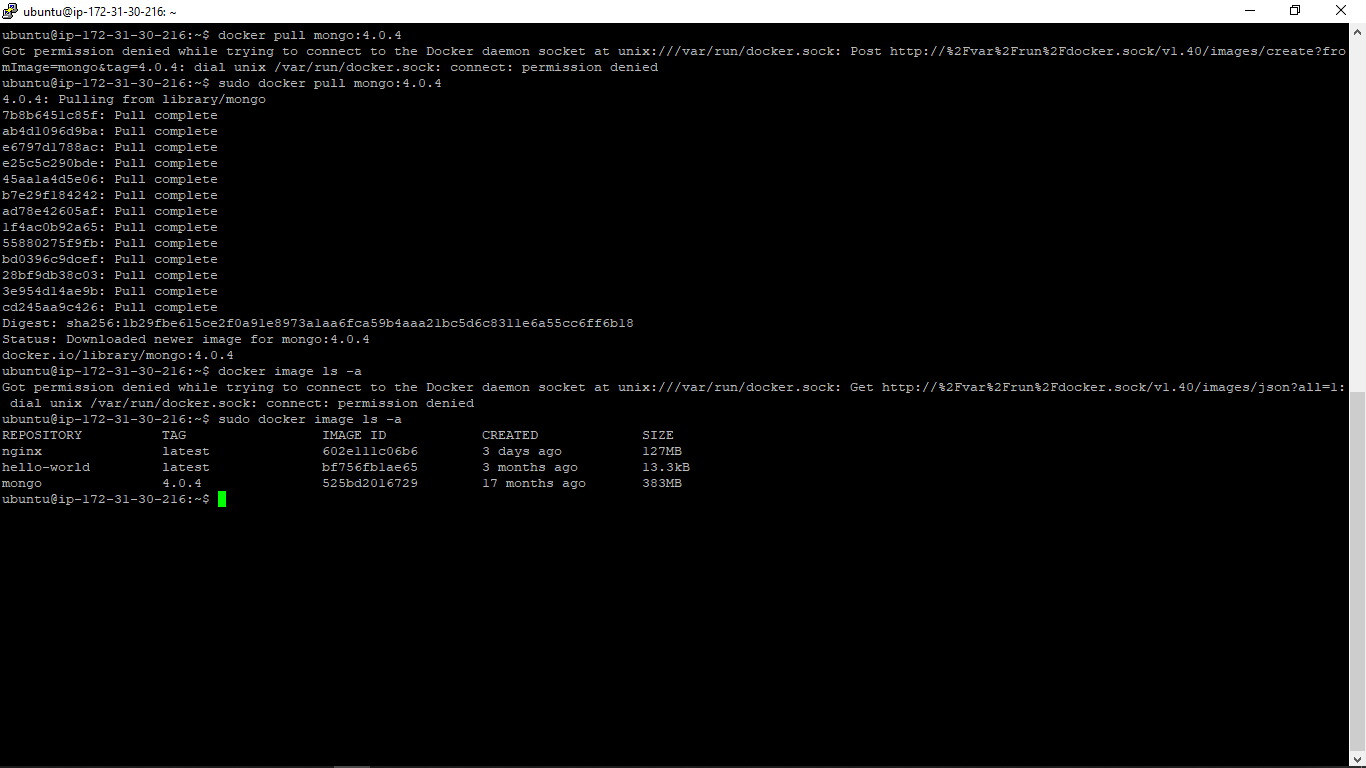
**3. Setup ‘MongoDB’ using docker**

Pull the mongoDB docker from docker hub with the below command

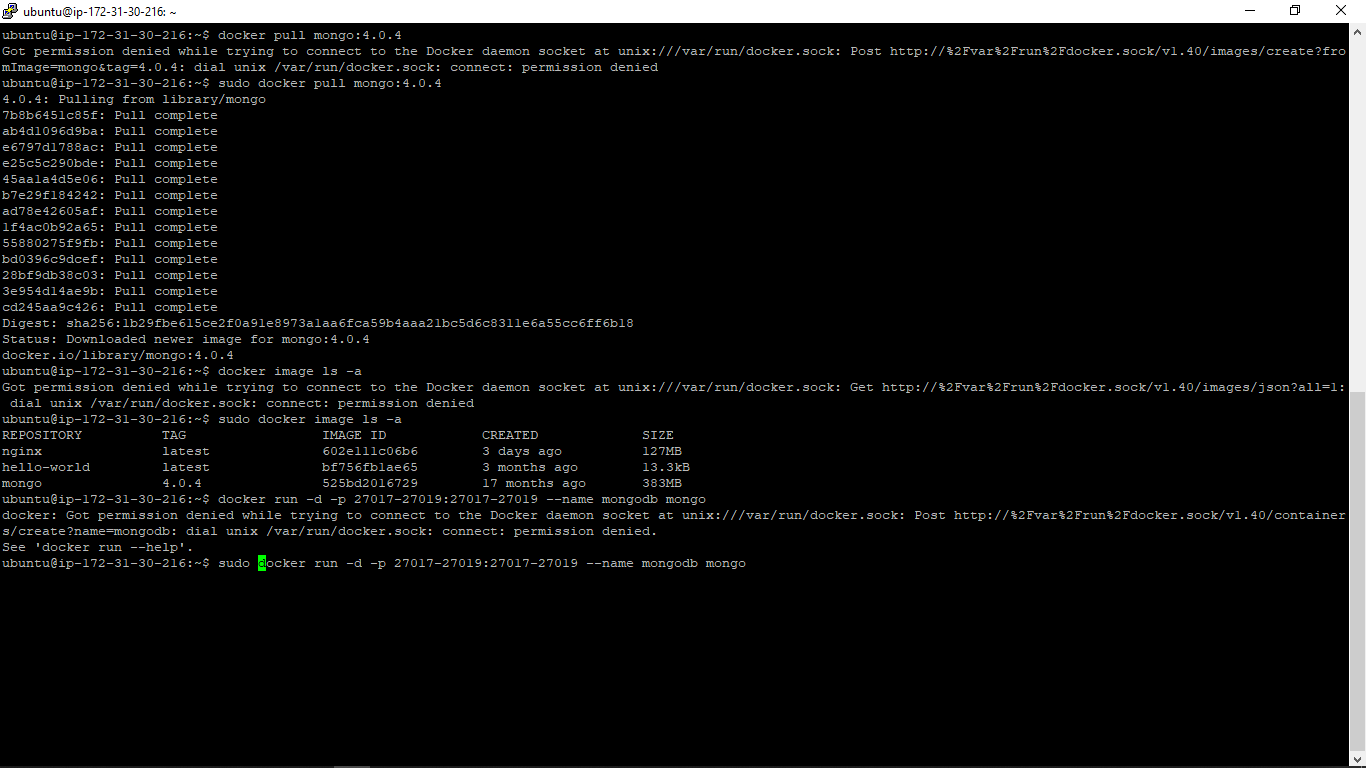


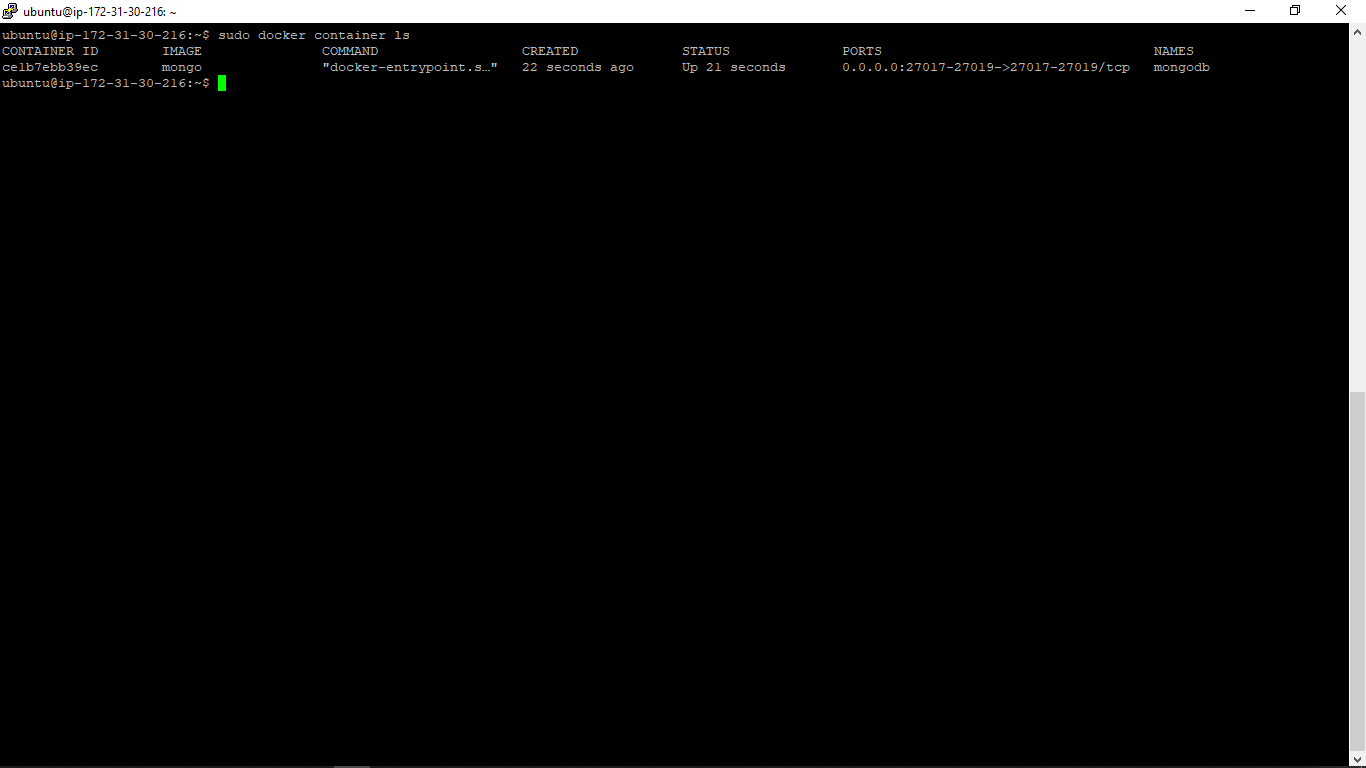


Below screenshot shows the mongoDB image has been pulled as a docker image:

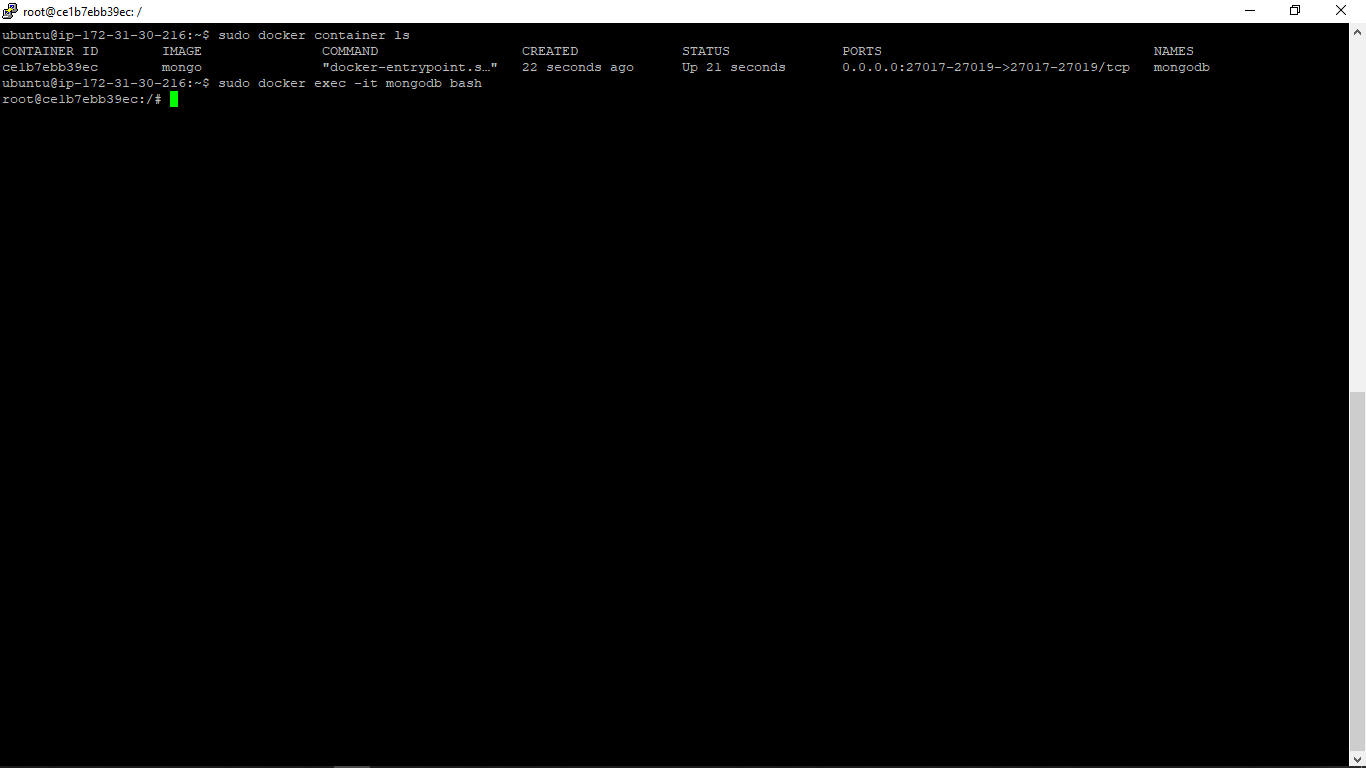


Below command shows a Mongodb docker container is created using the image and port 27017-27019 has been opened for host applications as well:

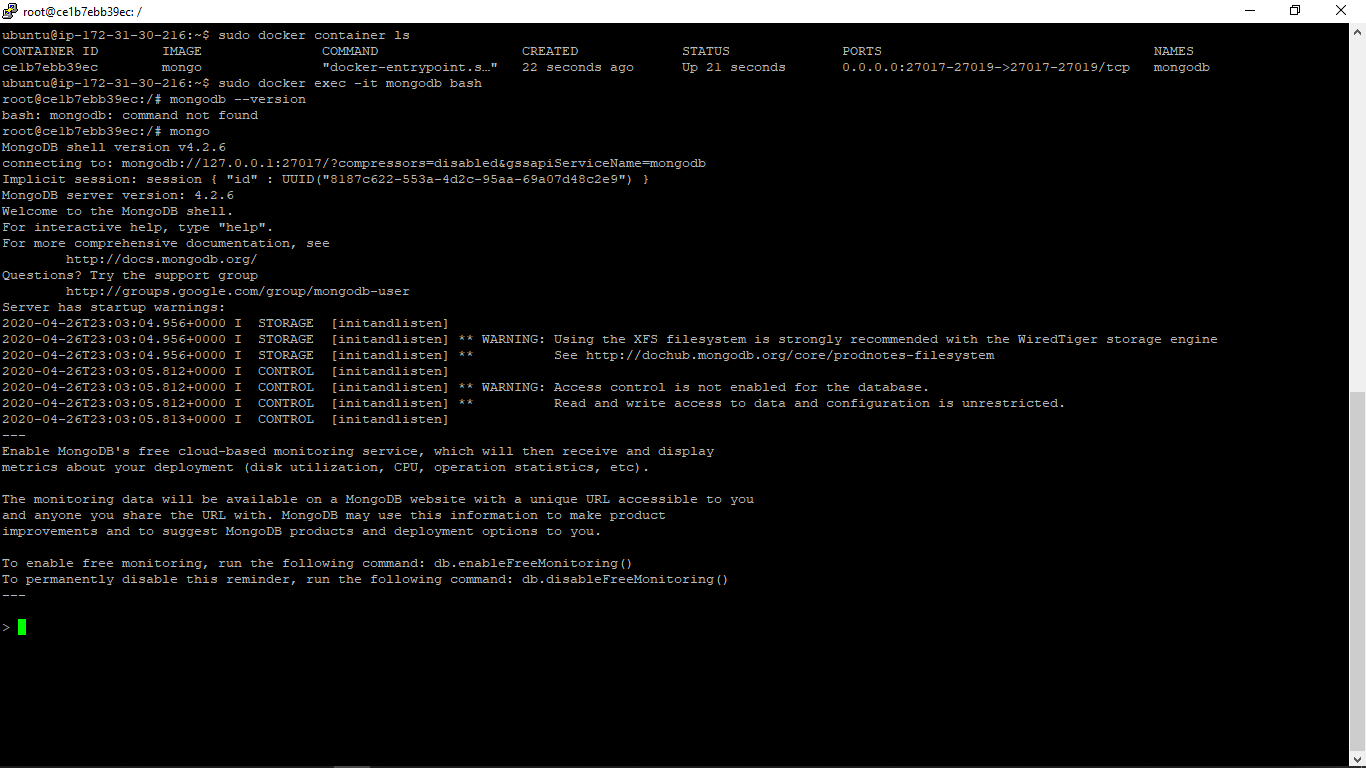


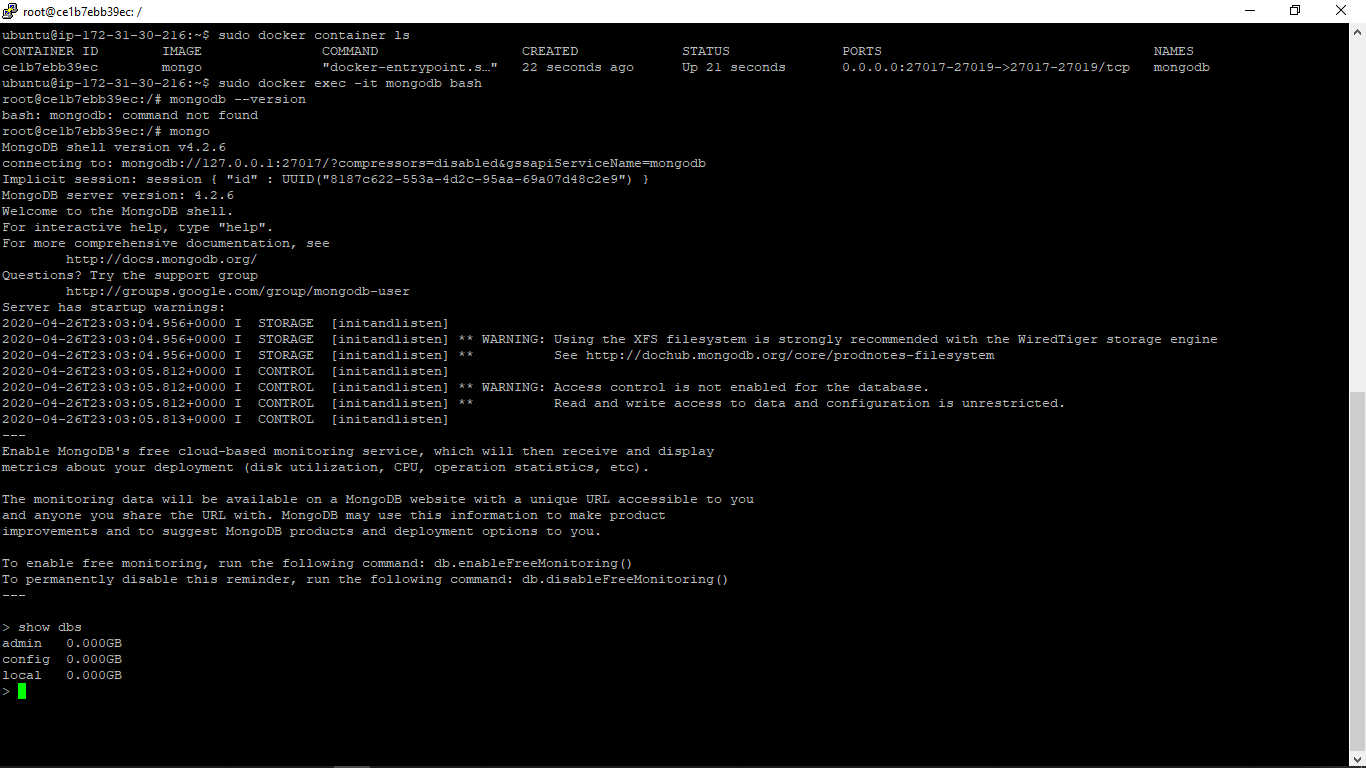


Entered inside the mongodb container using exec command to access the mongodb using shell:

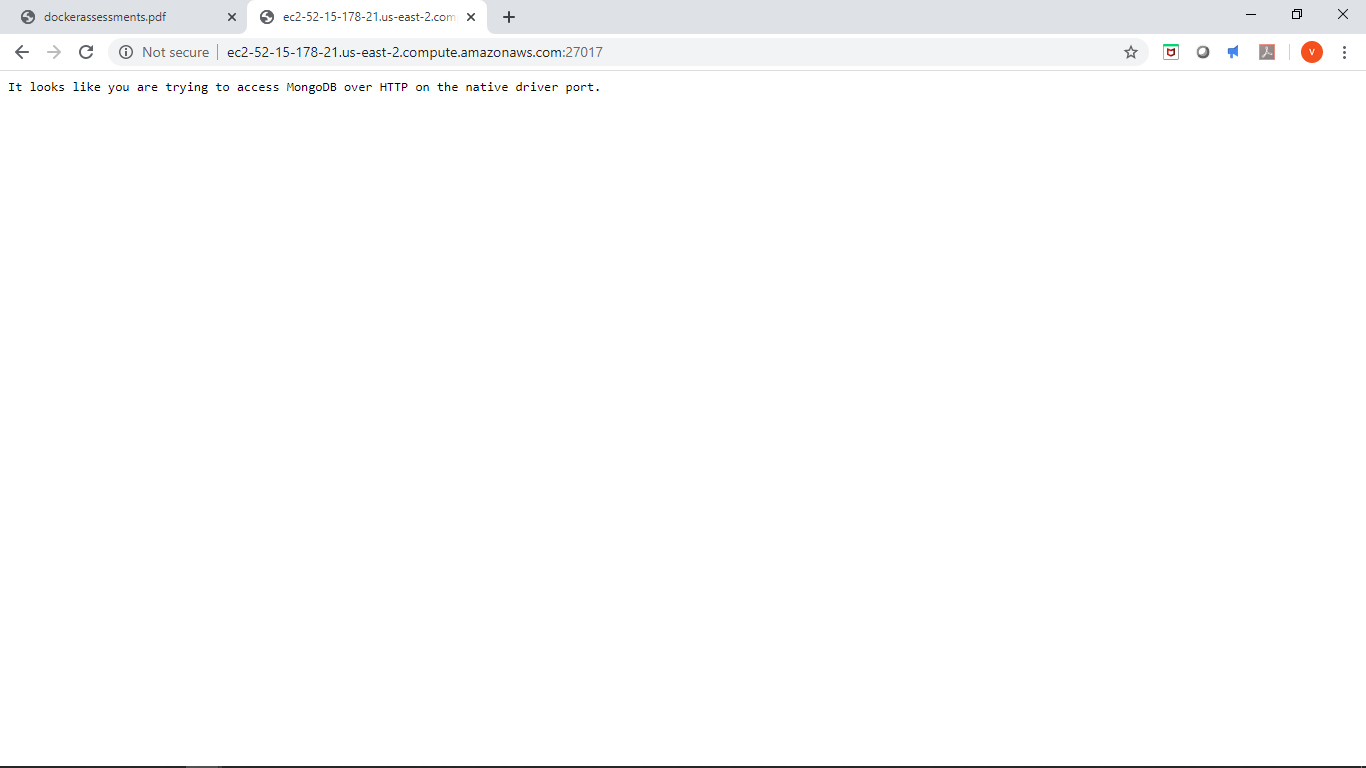


Able to launch the mongo shell client as shown below:



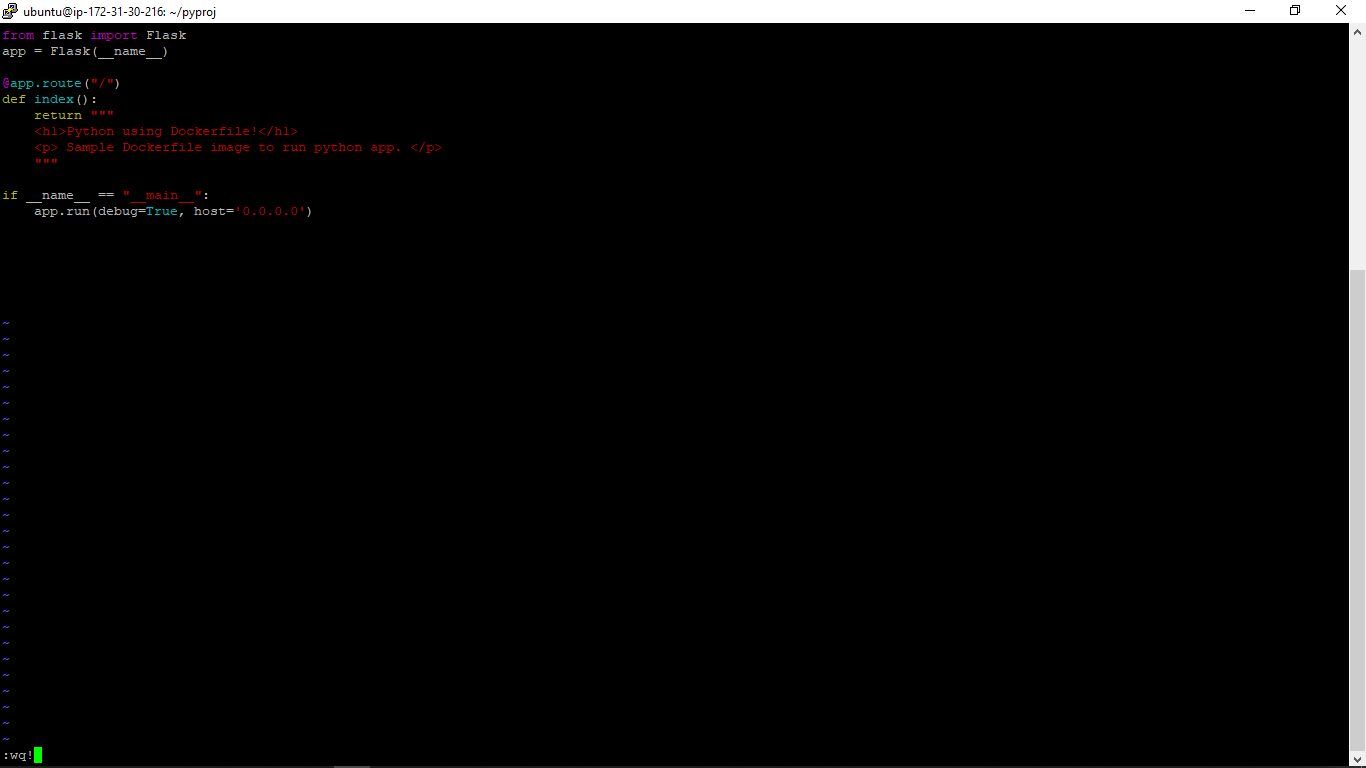


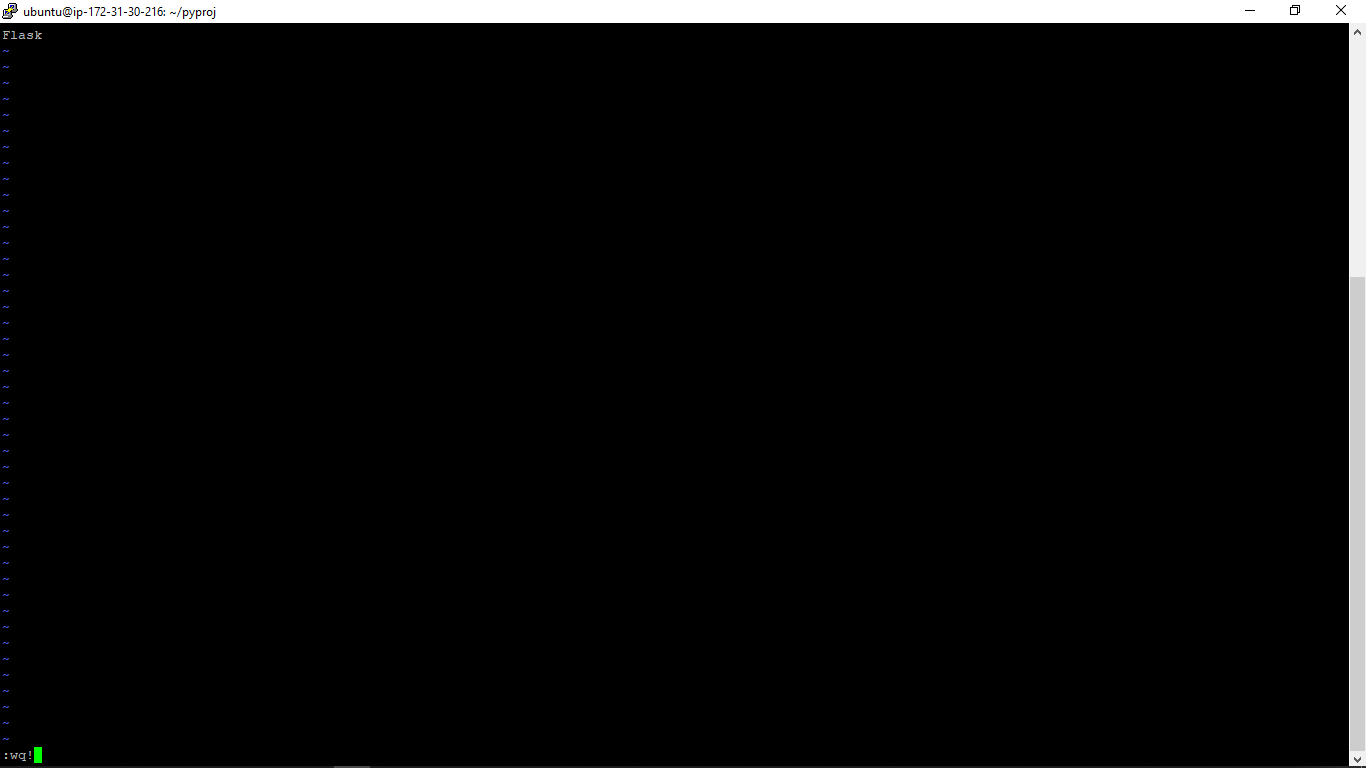
Able to access the mongodb using public ip on the browser:



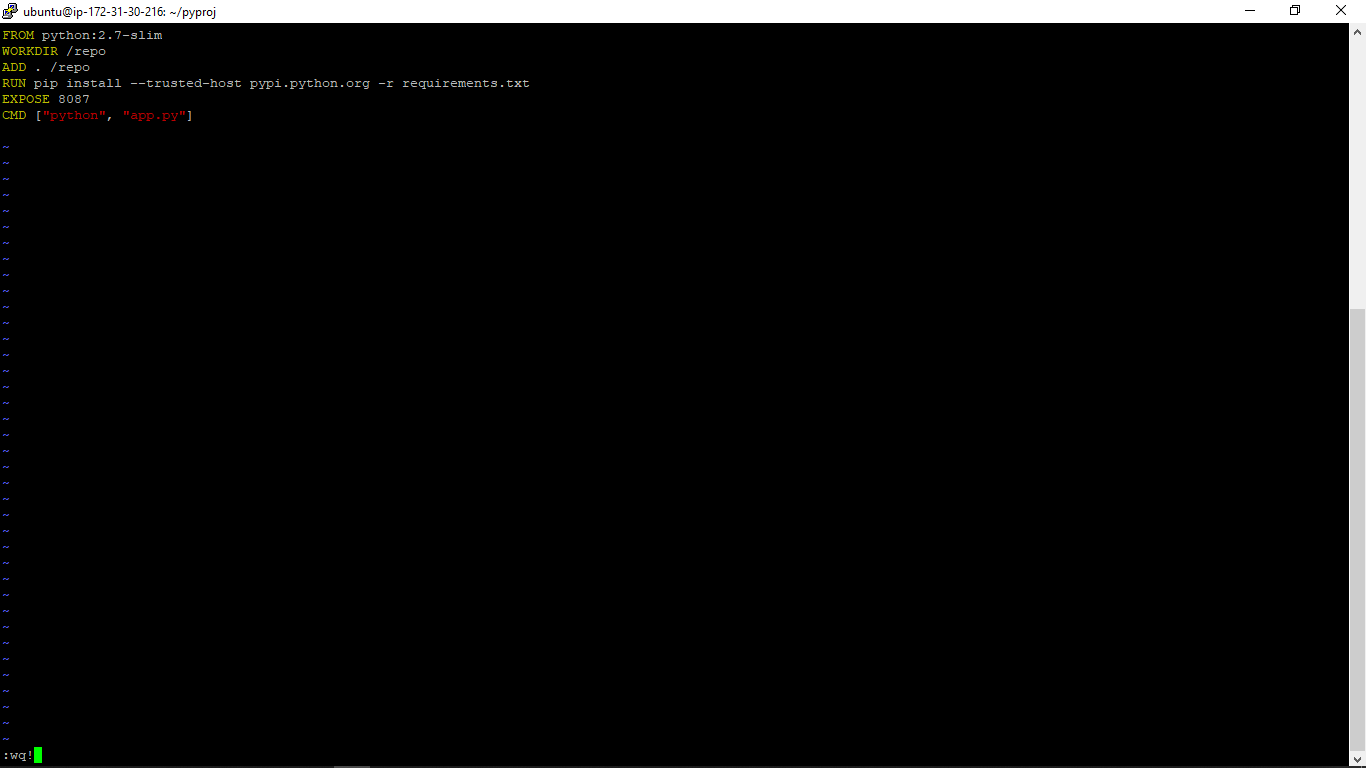
Level :1

1. Create your own dockerfile to install python

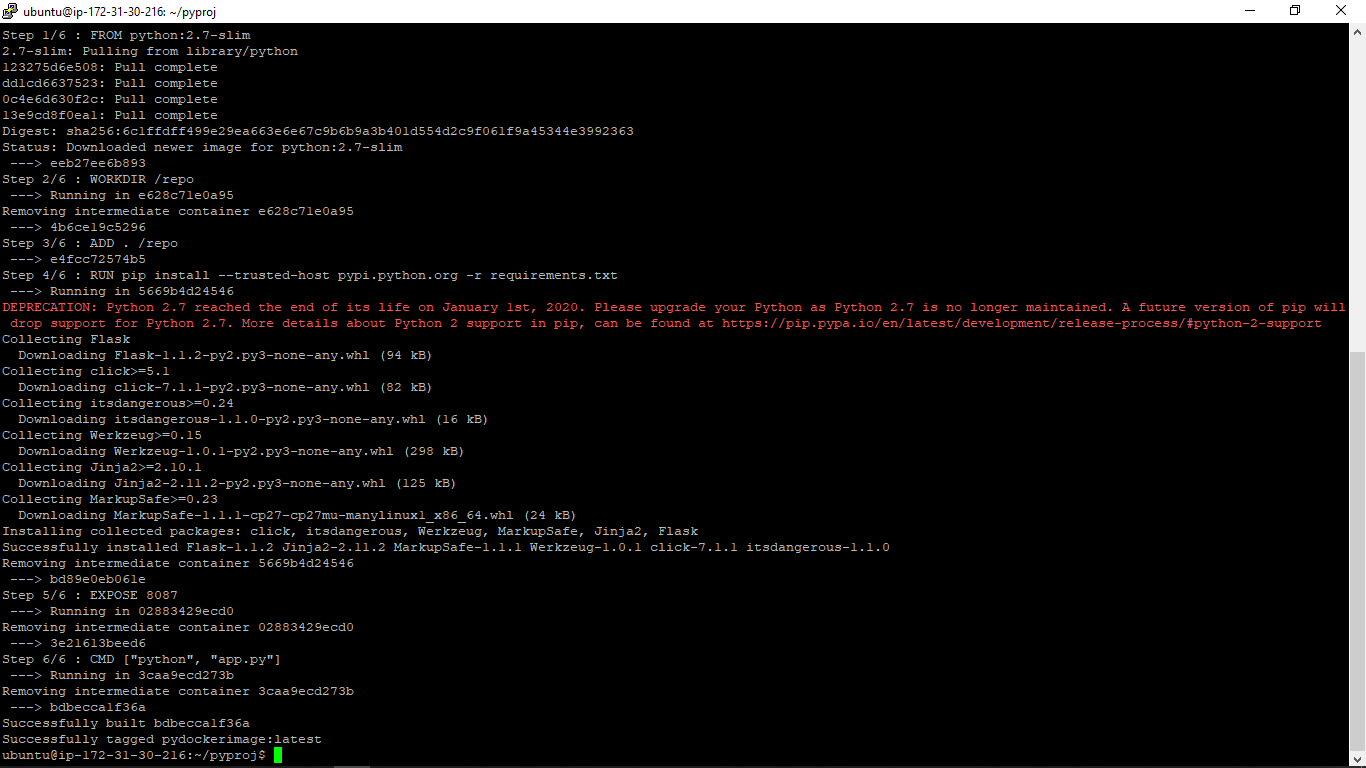


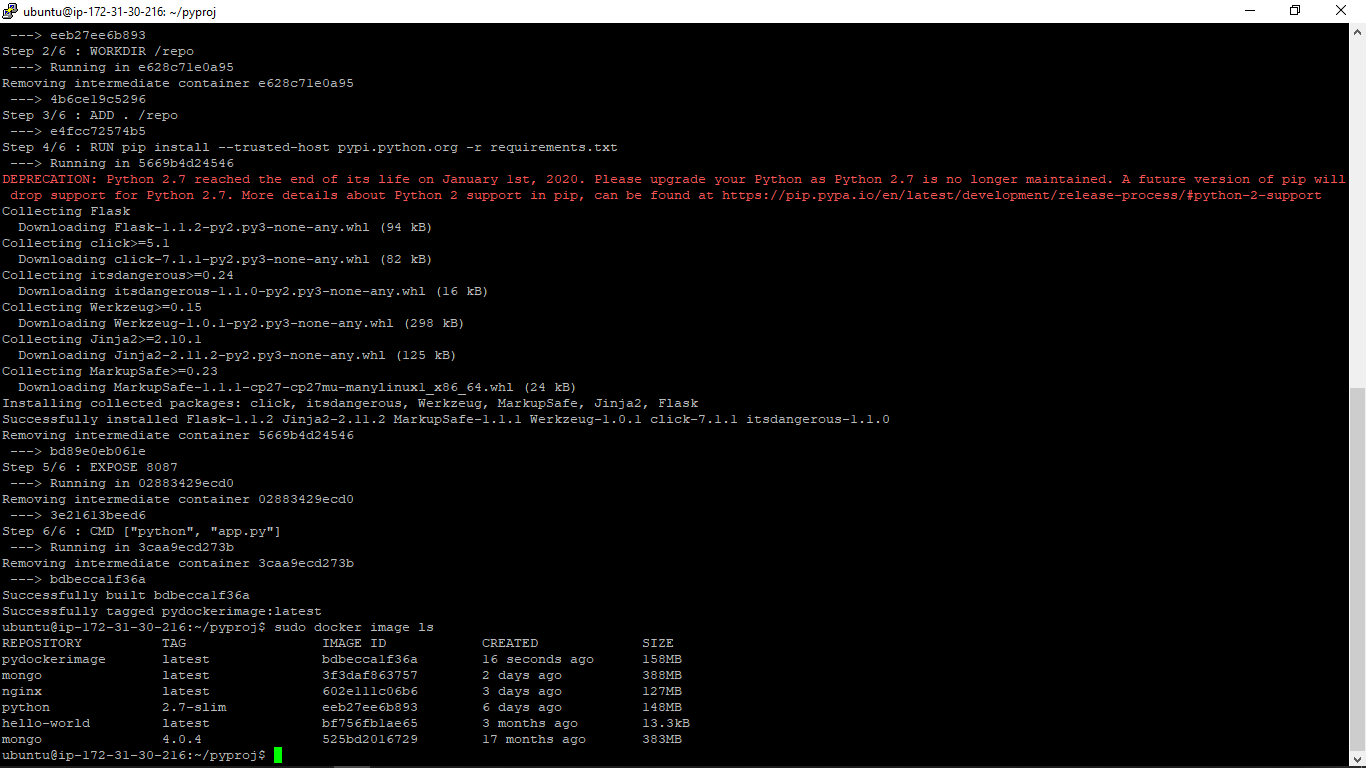


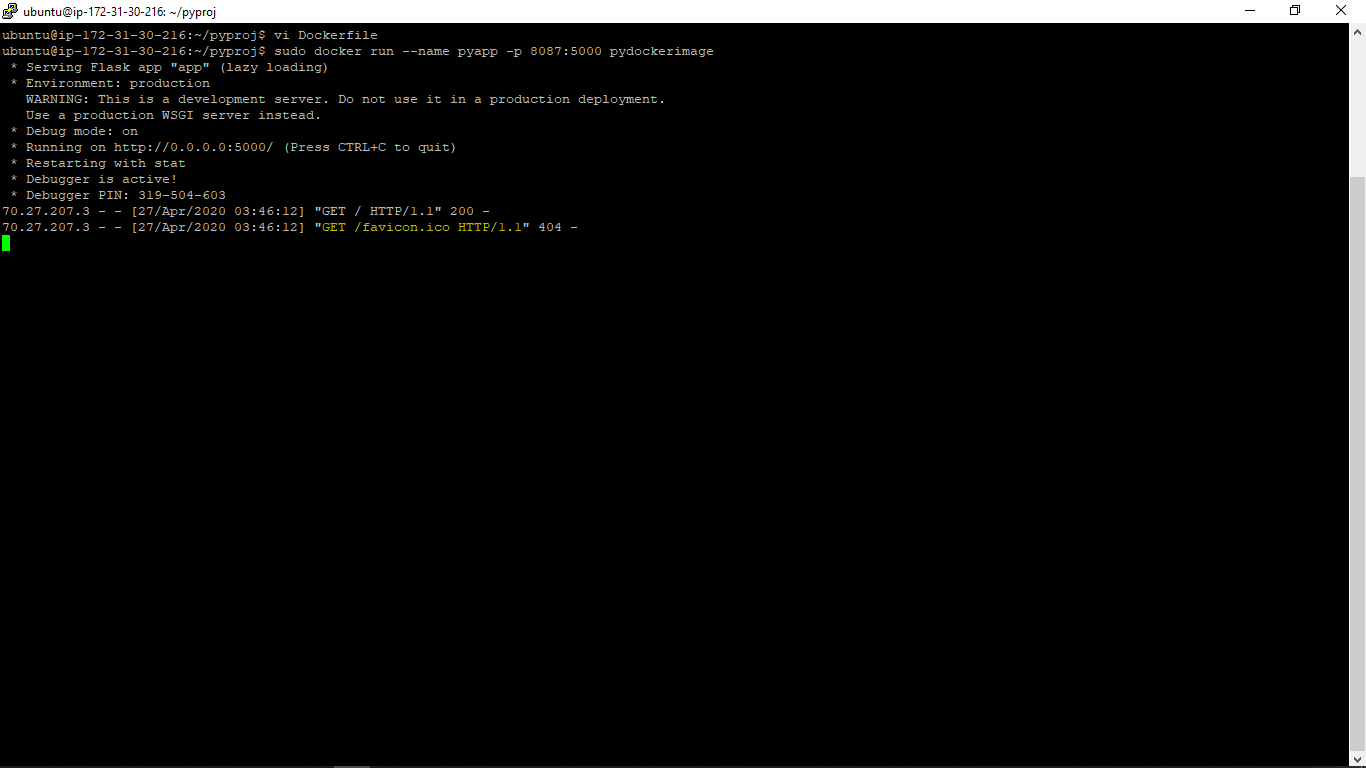
Created the dockerfile:

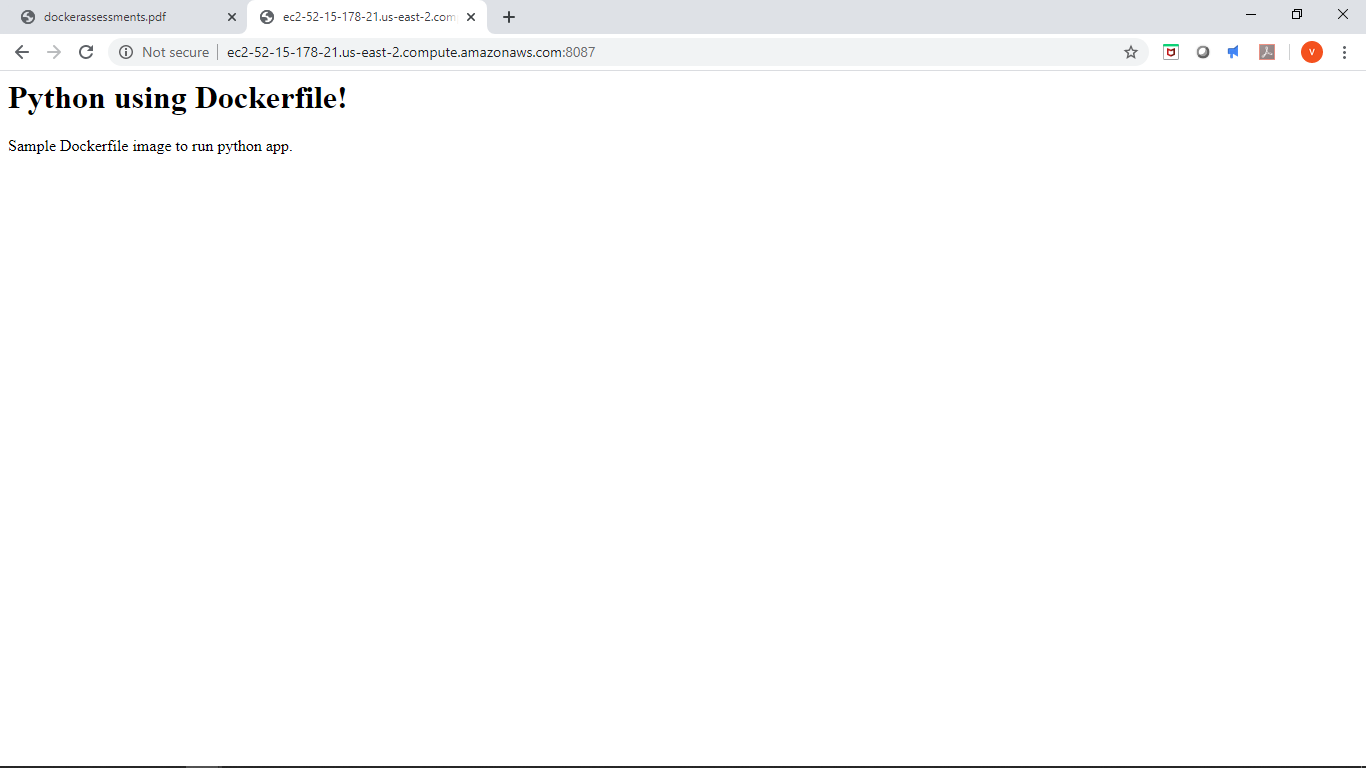


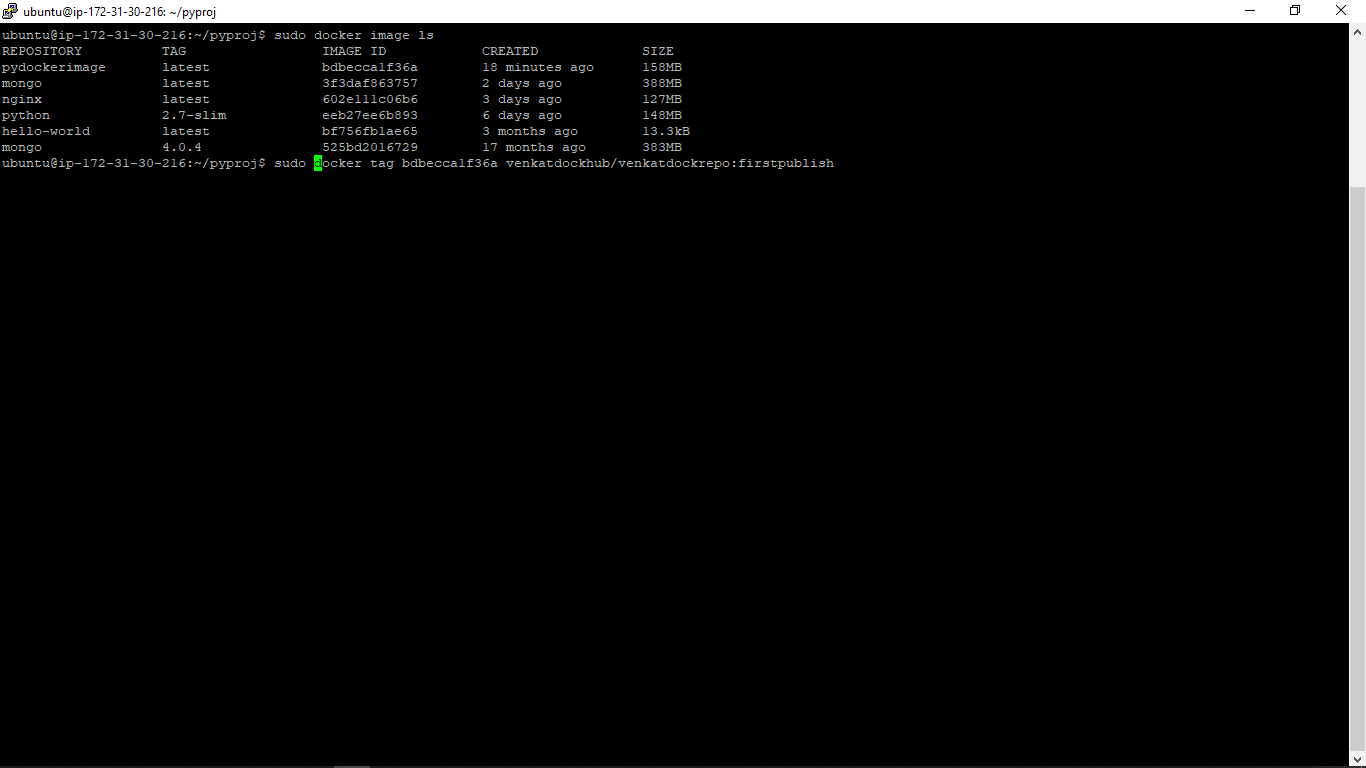


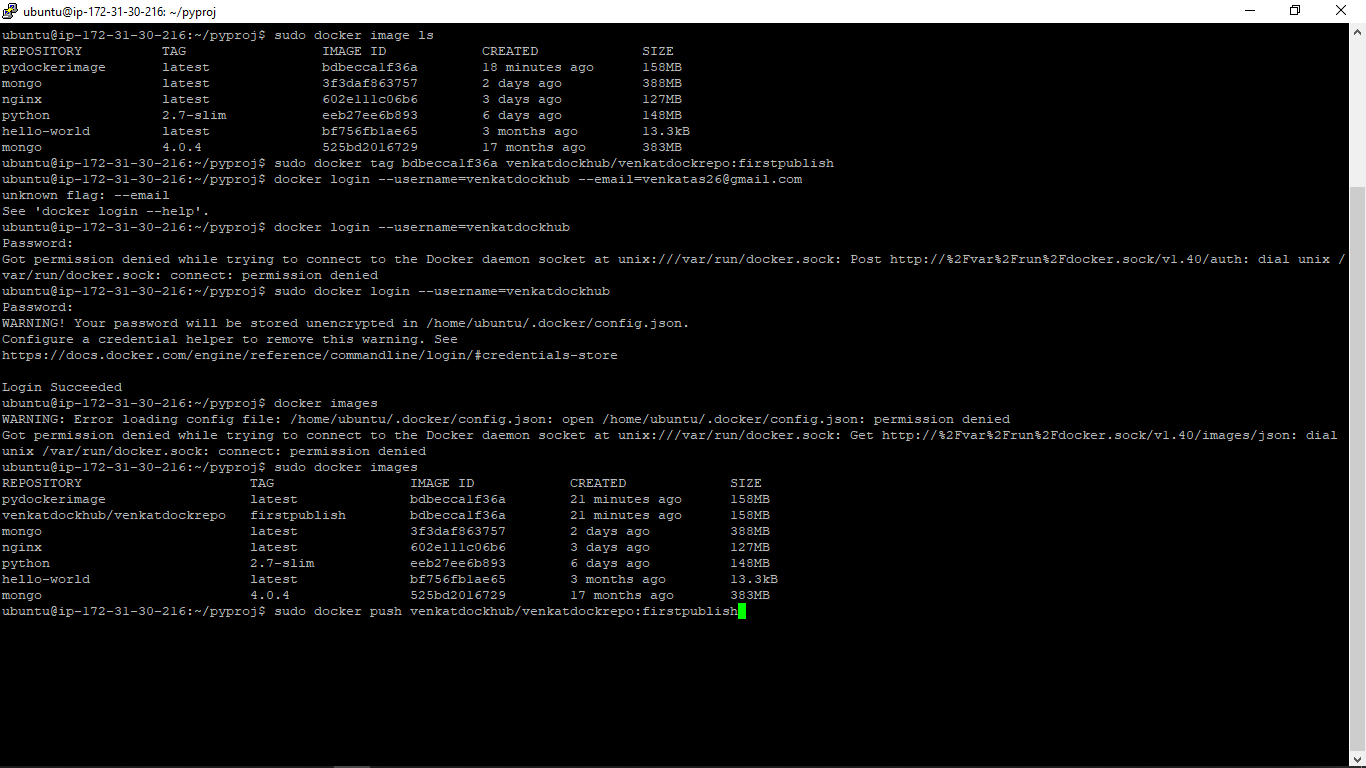


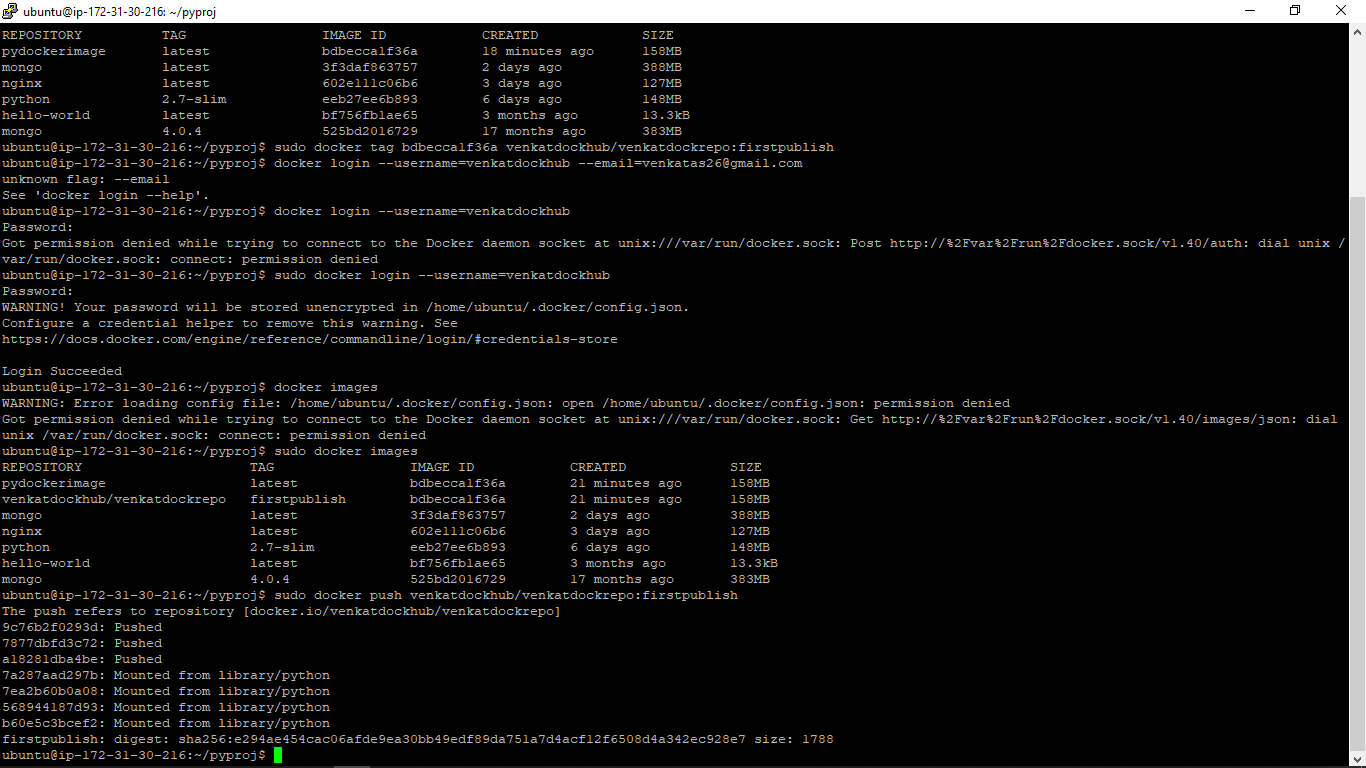


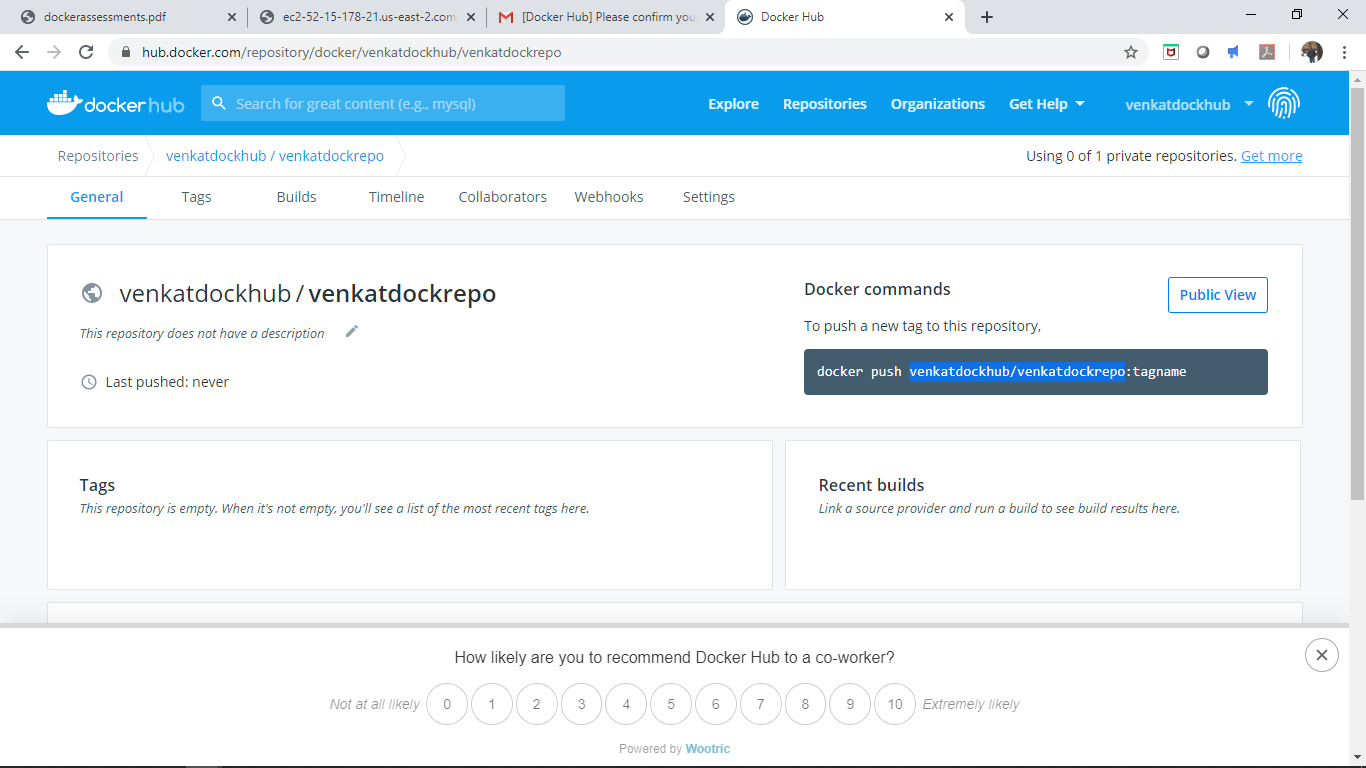


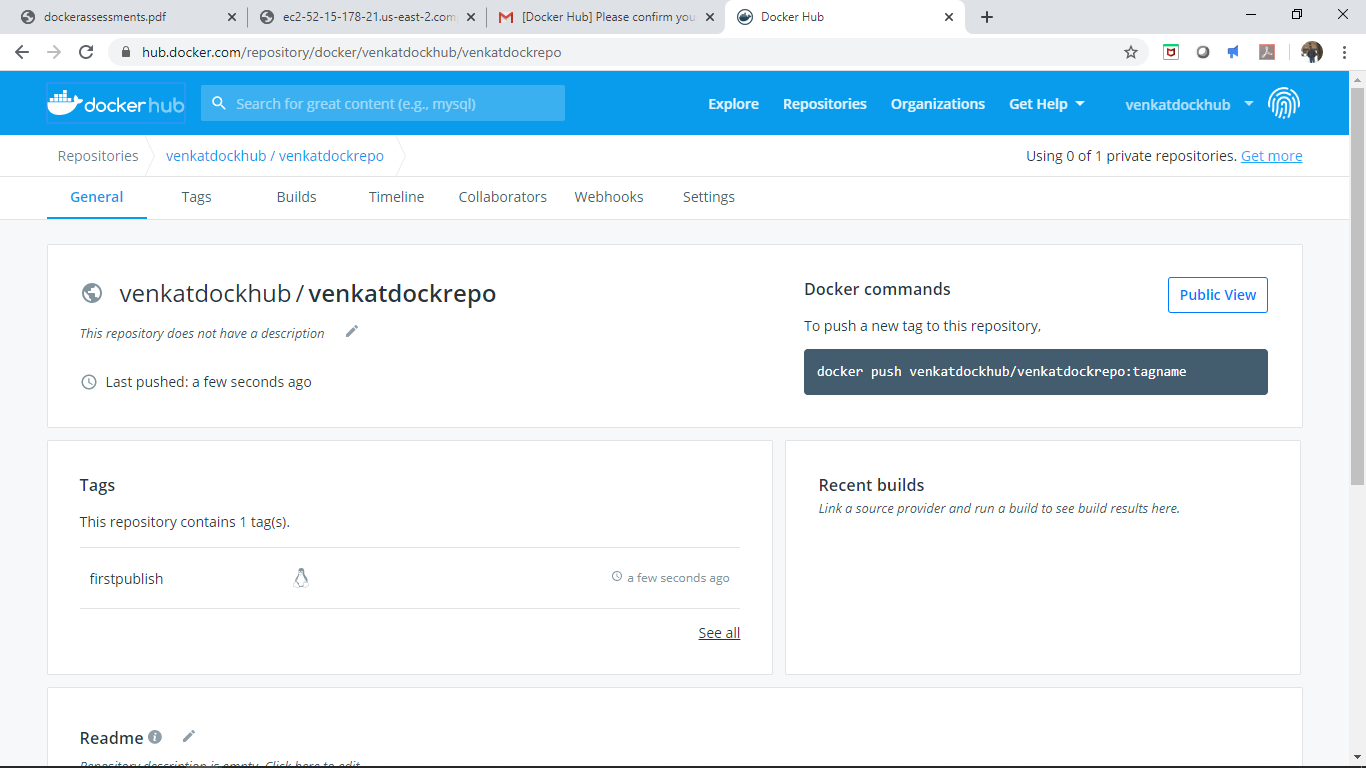




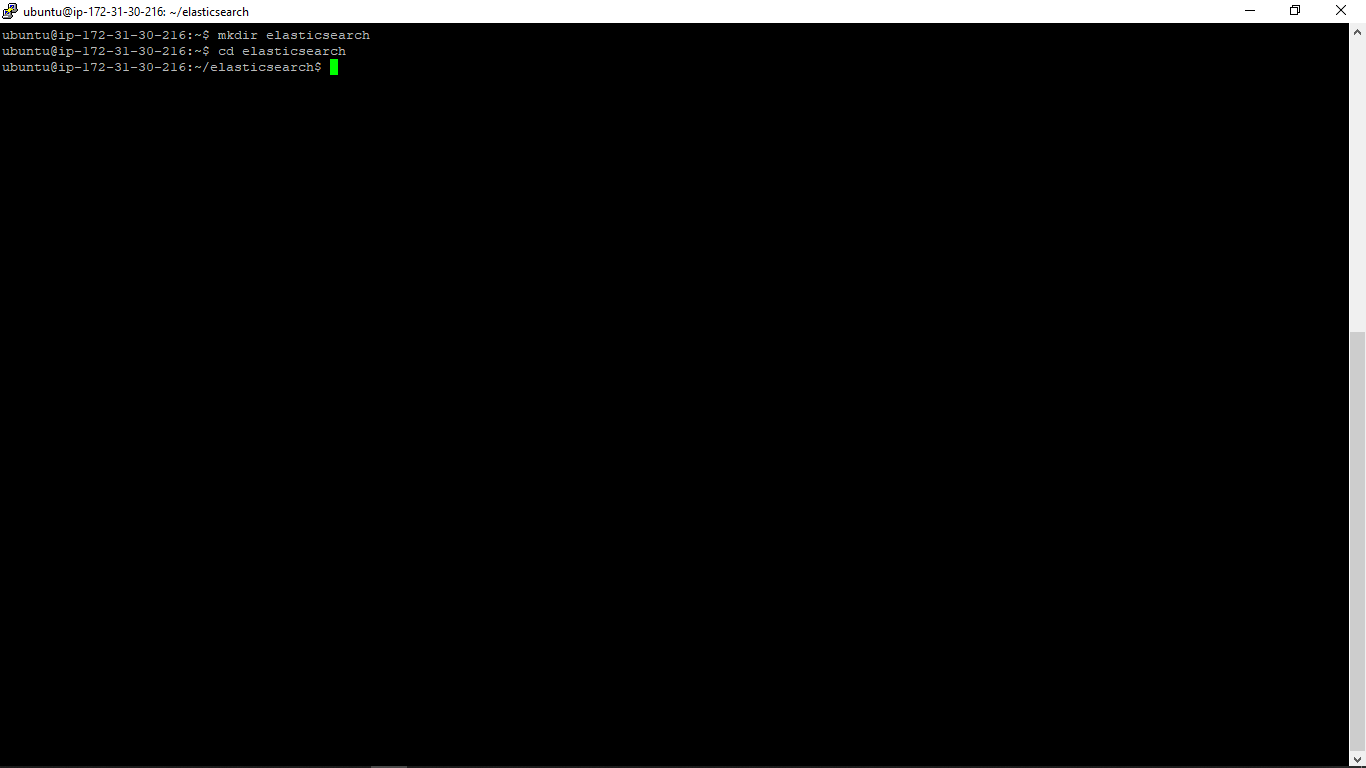




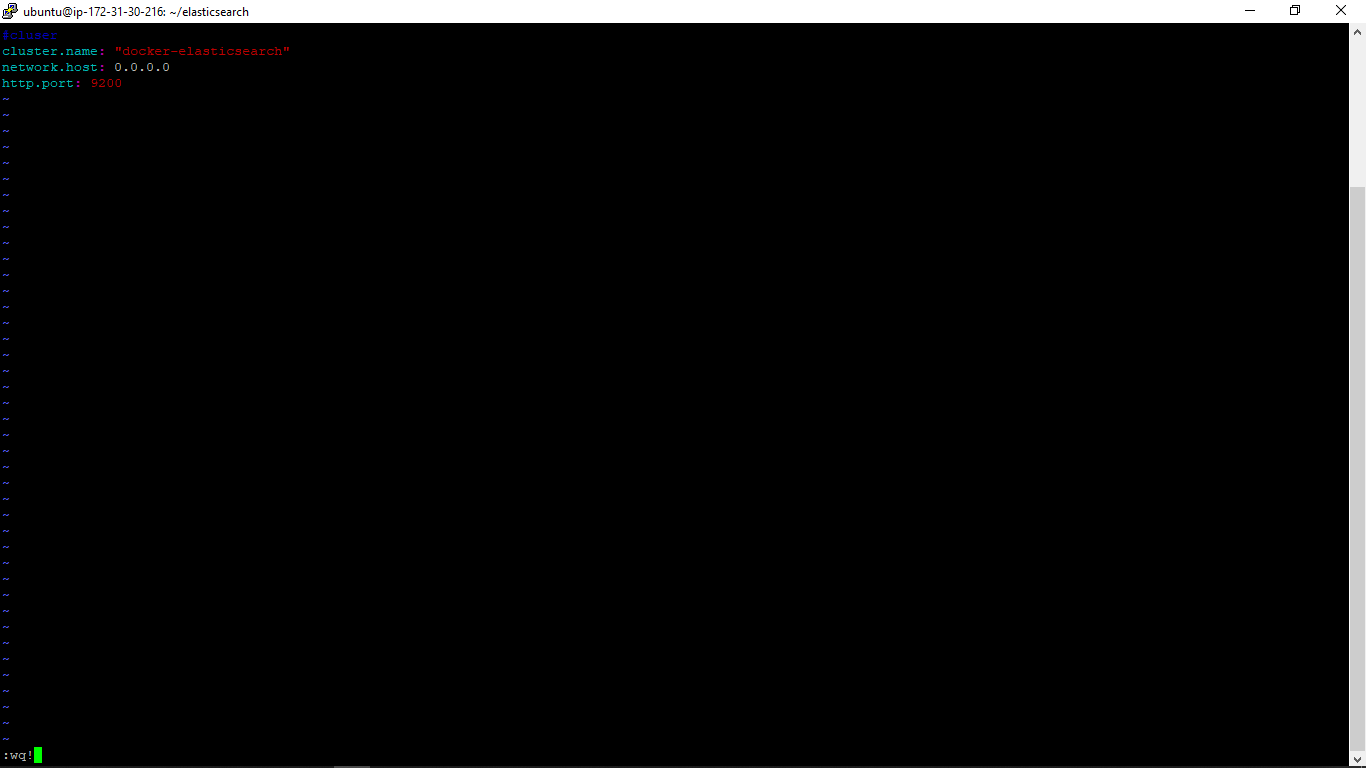




1. **Create your own dockerfile to setup Elasticsearch.**

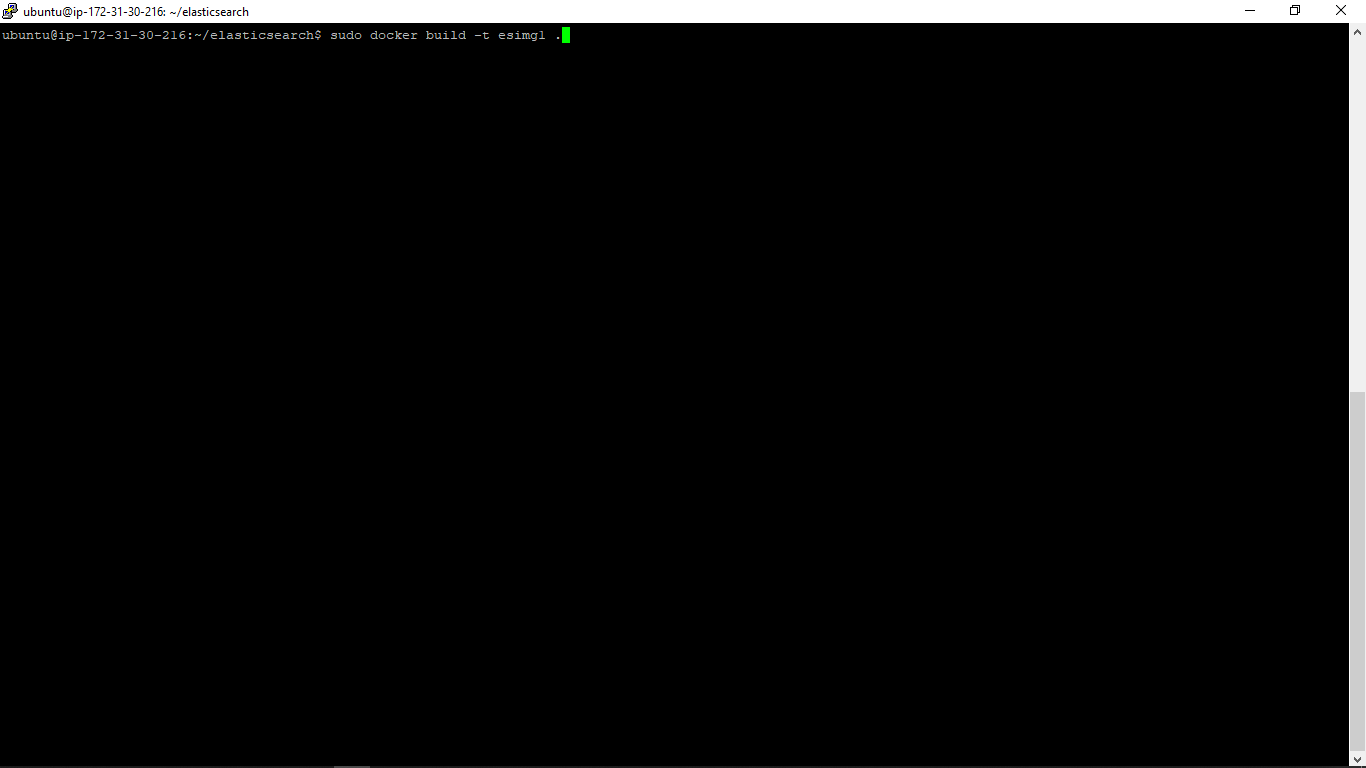
****

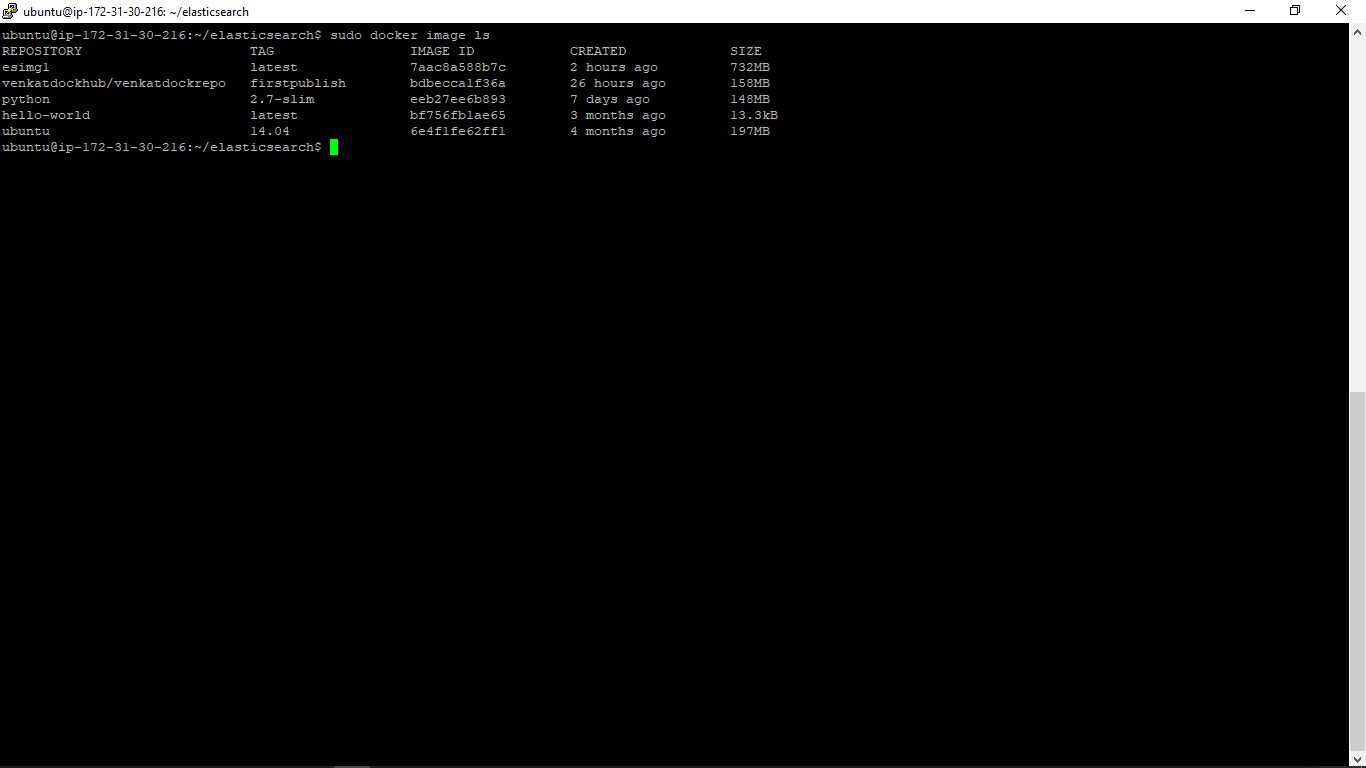
Created the yaml file as shown below:



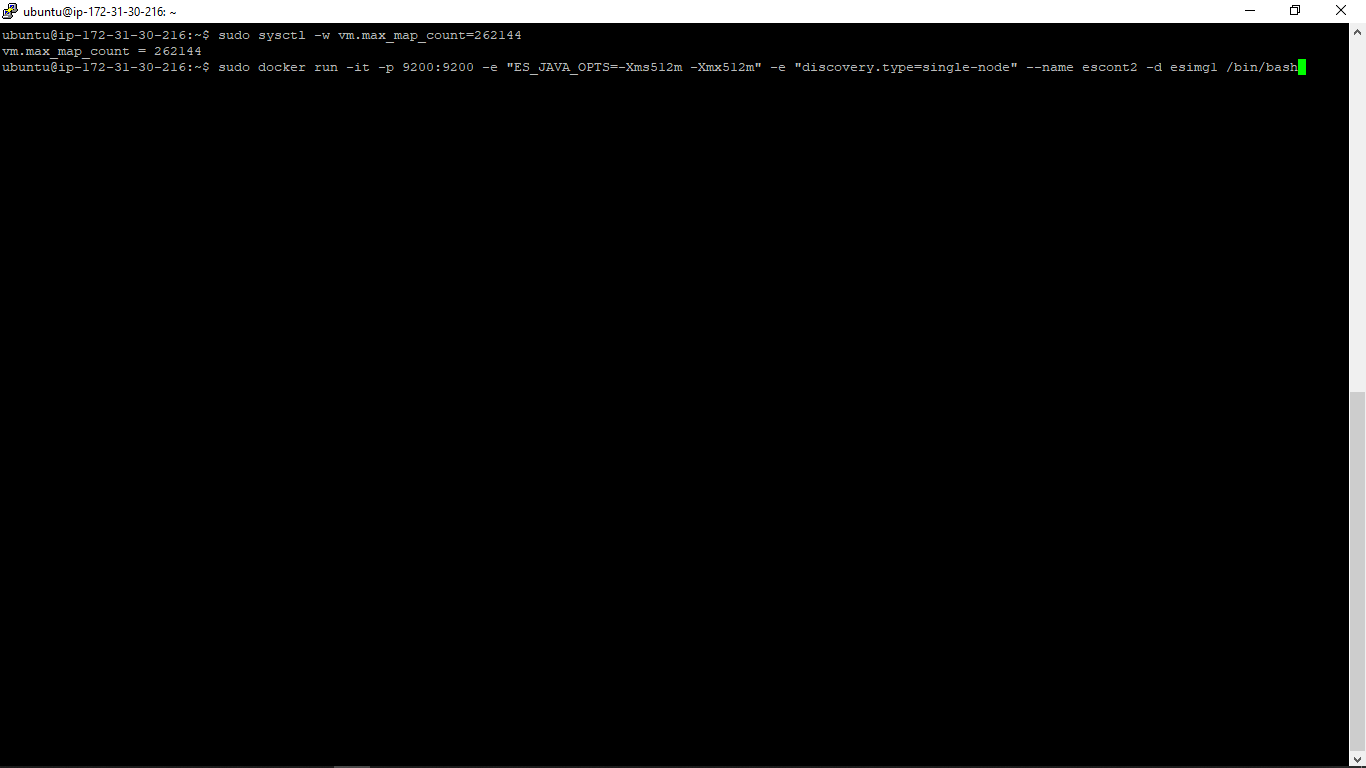
Created the docker file to build the elasticsearch image:

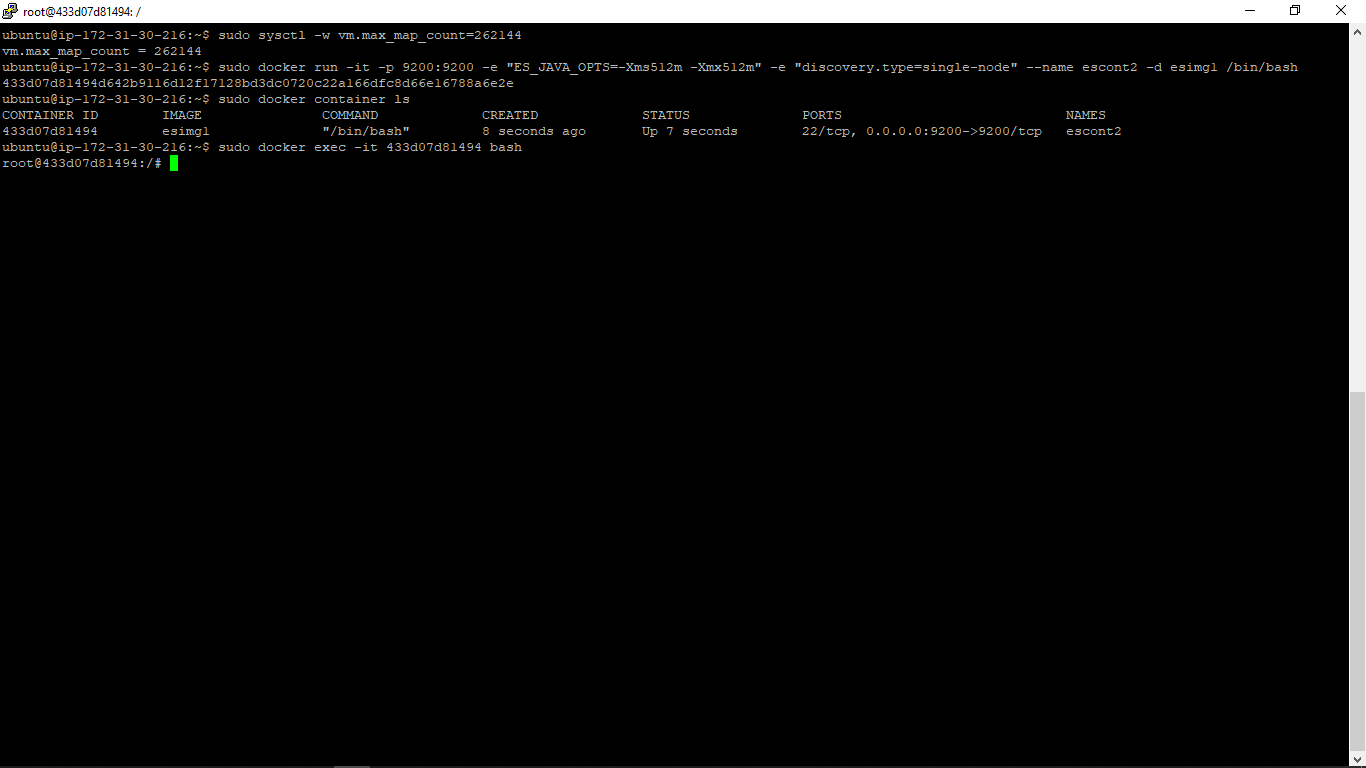


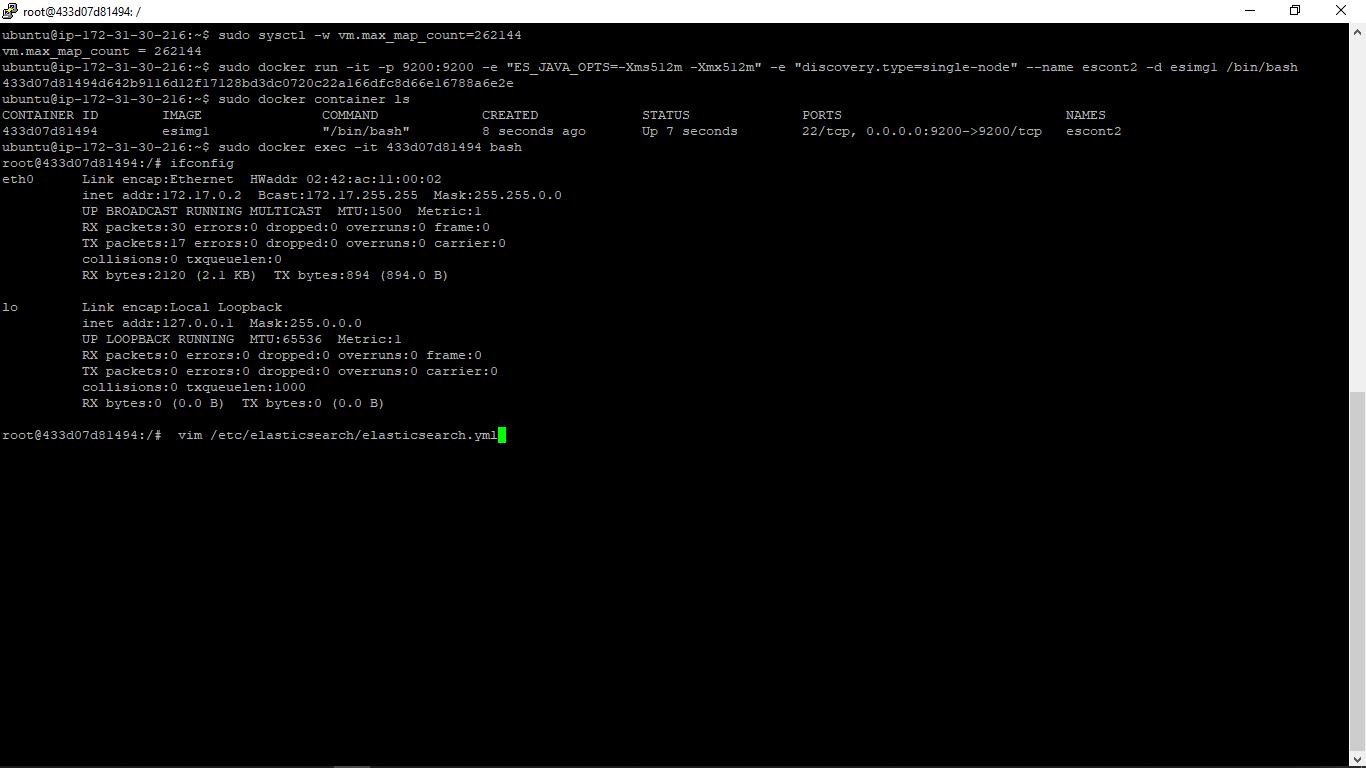


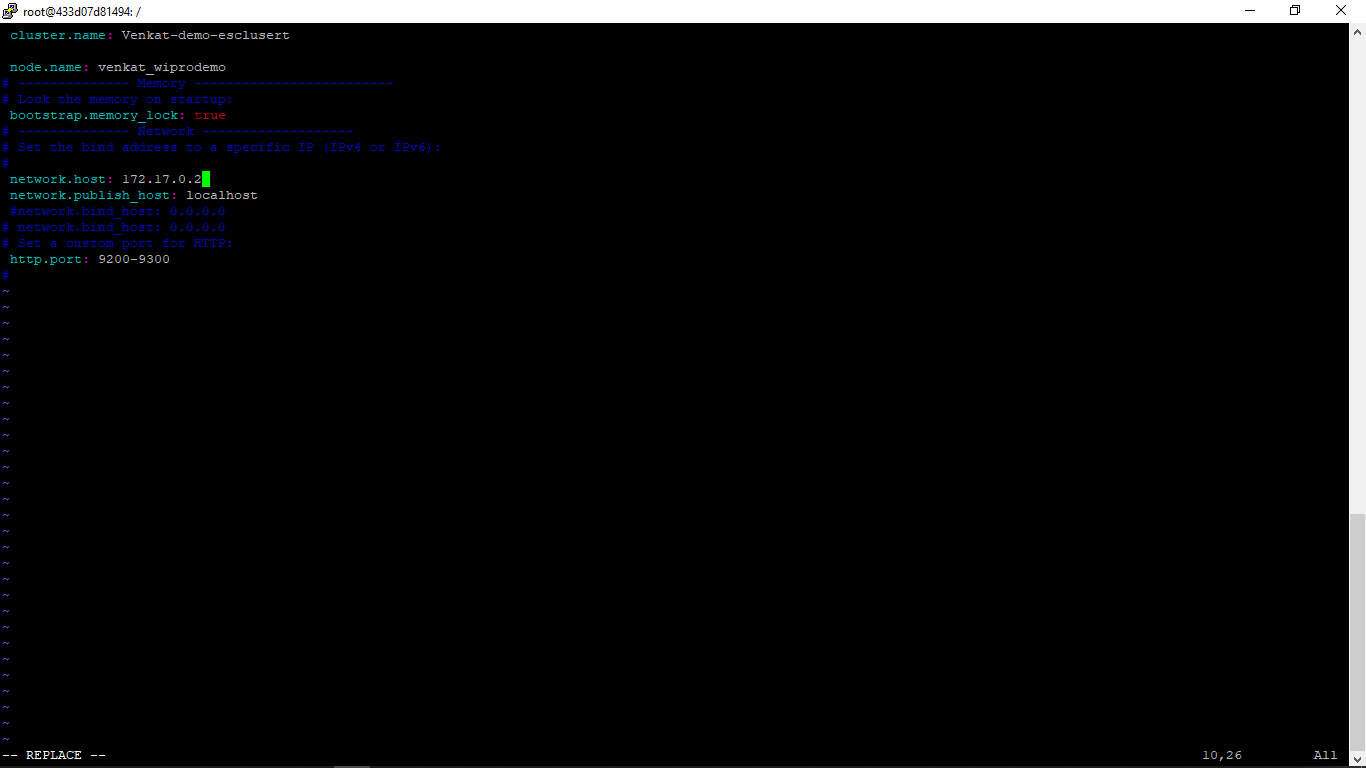


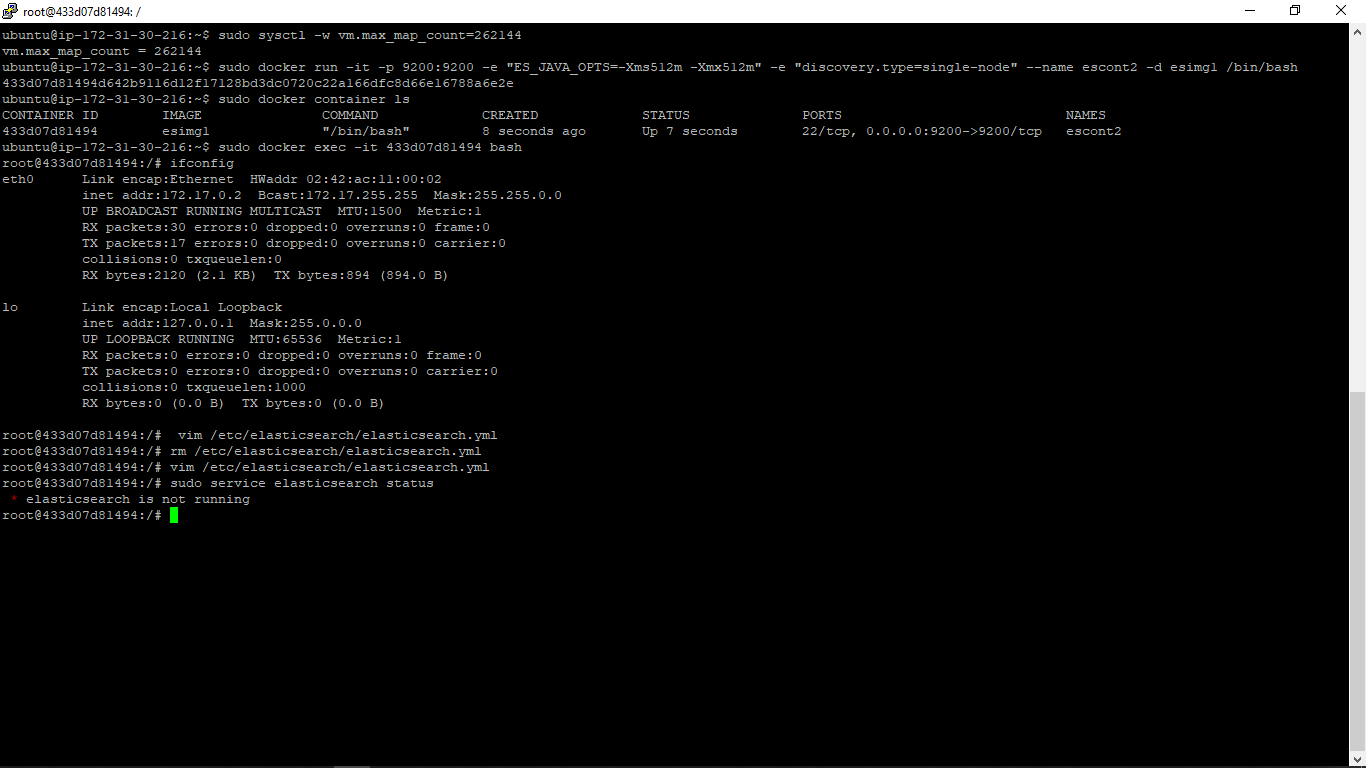
Created a docker container as shown below:

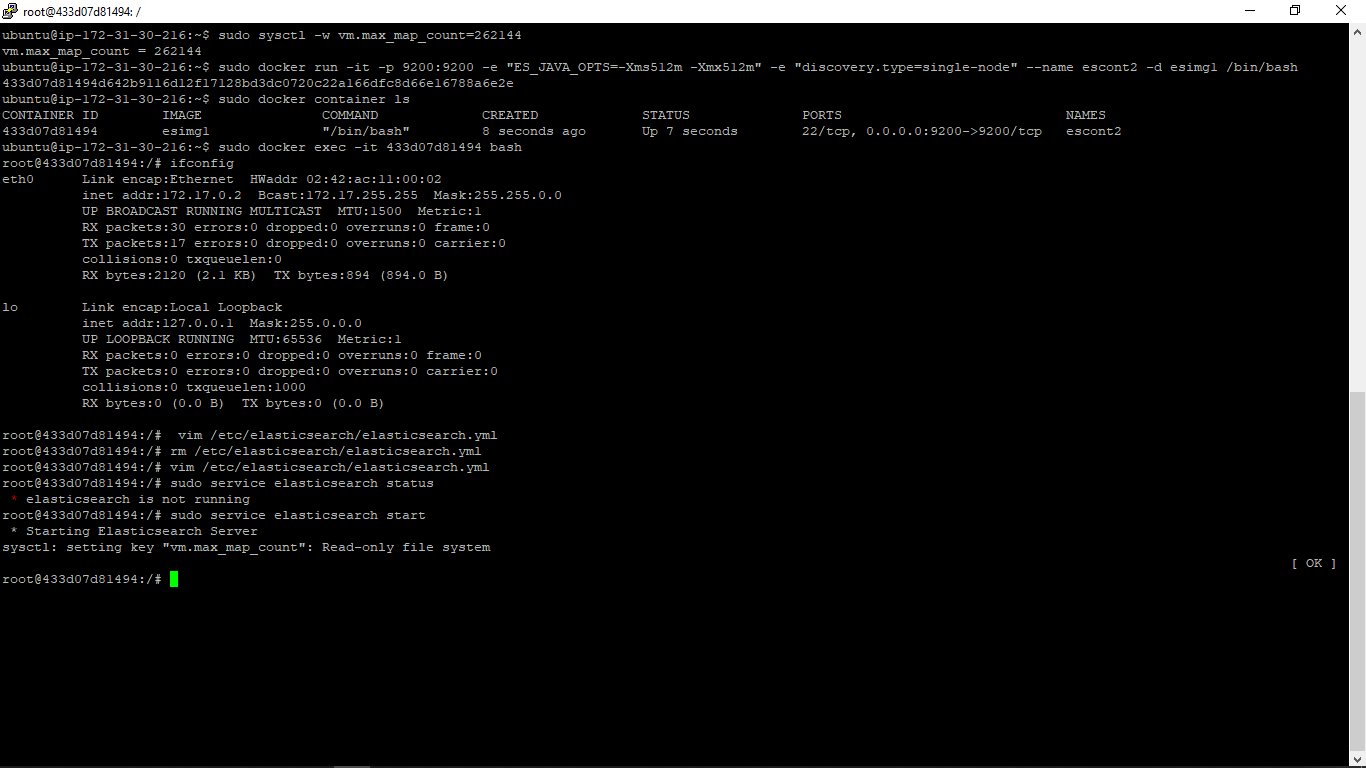


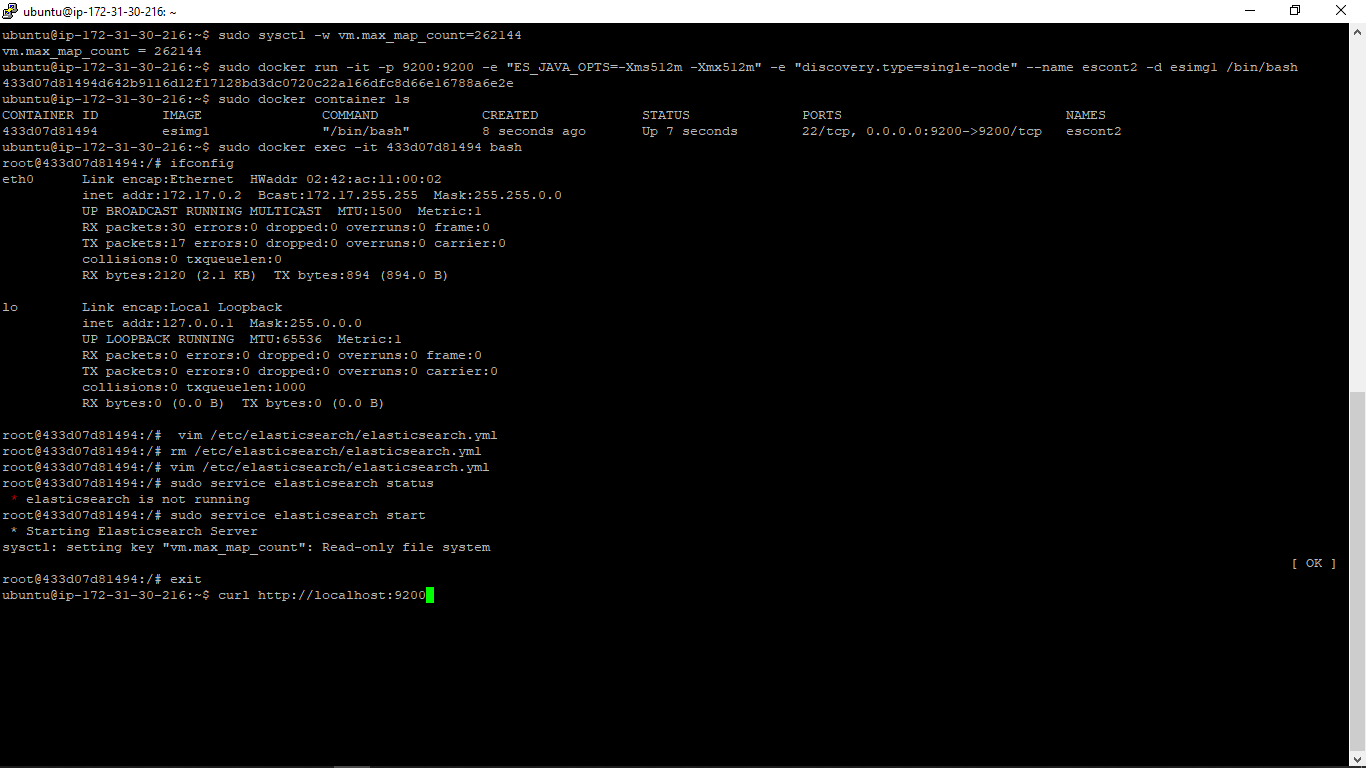


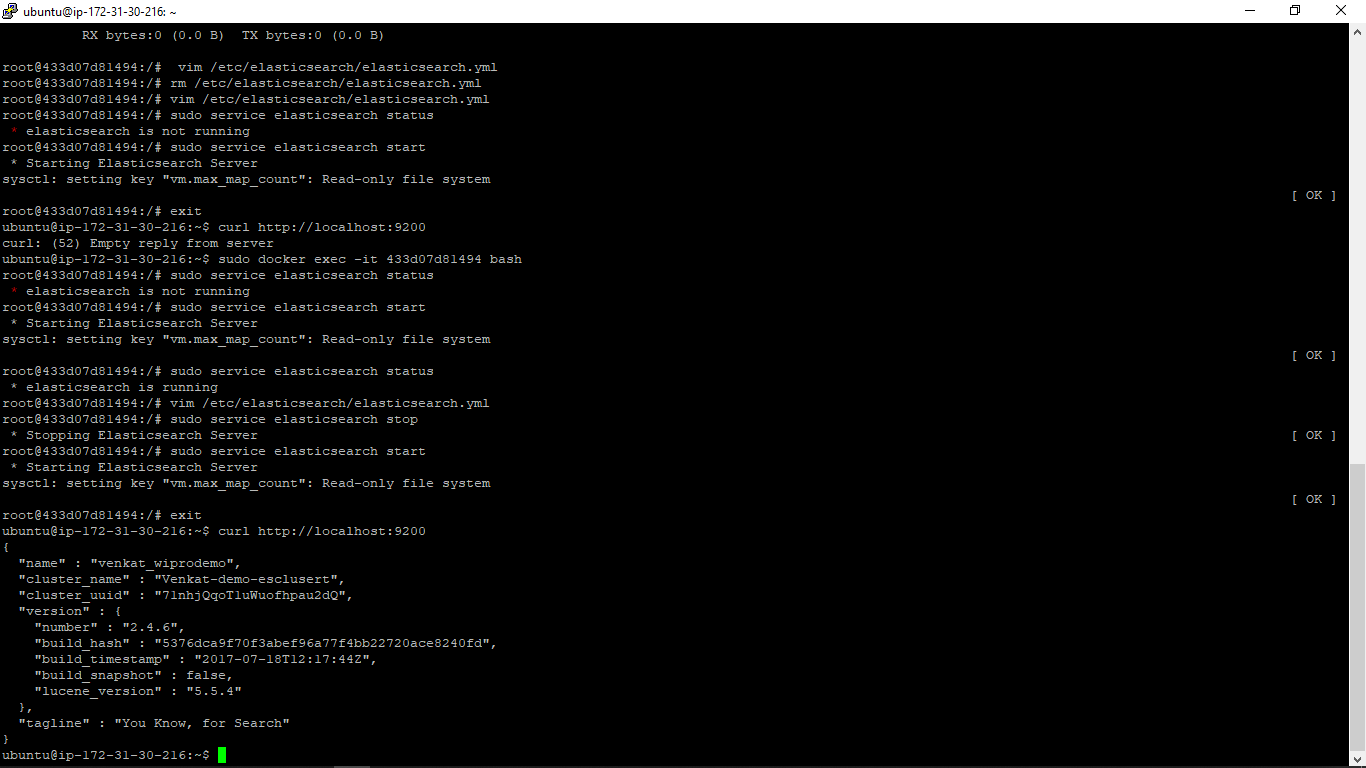


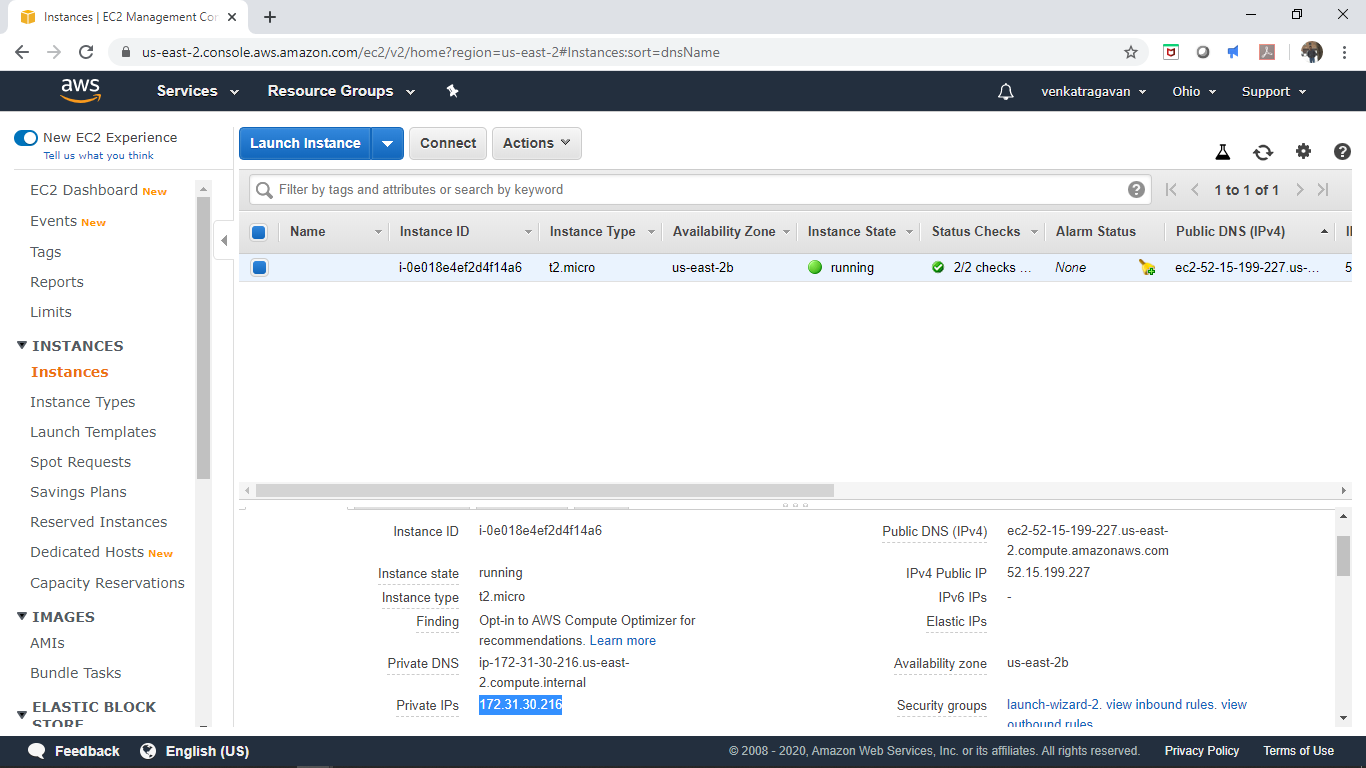


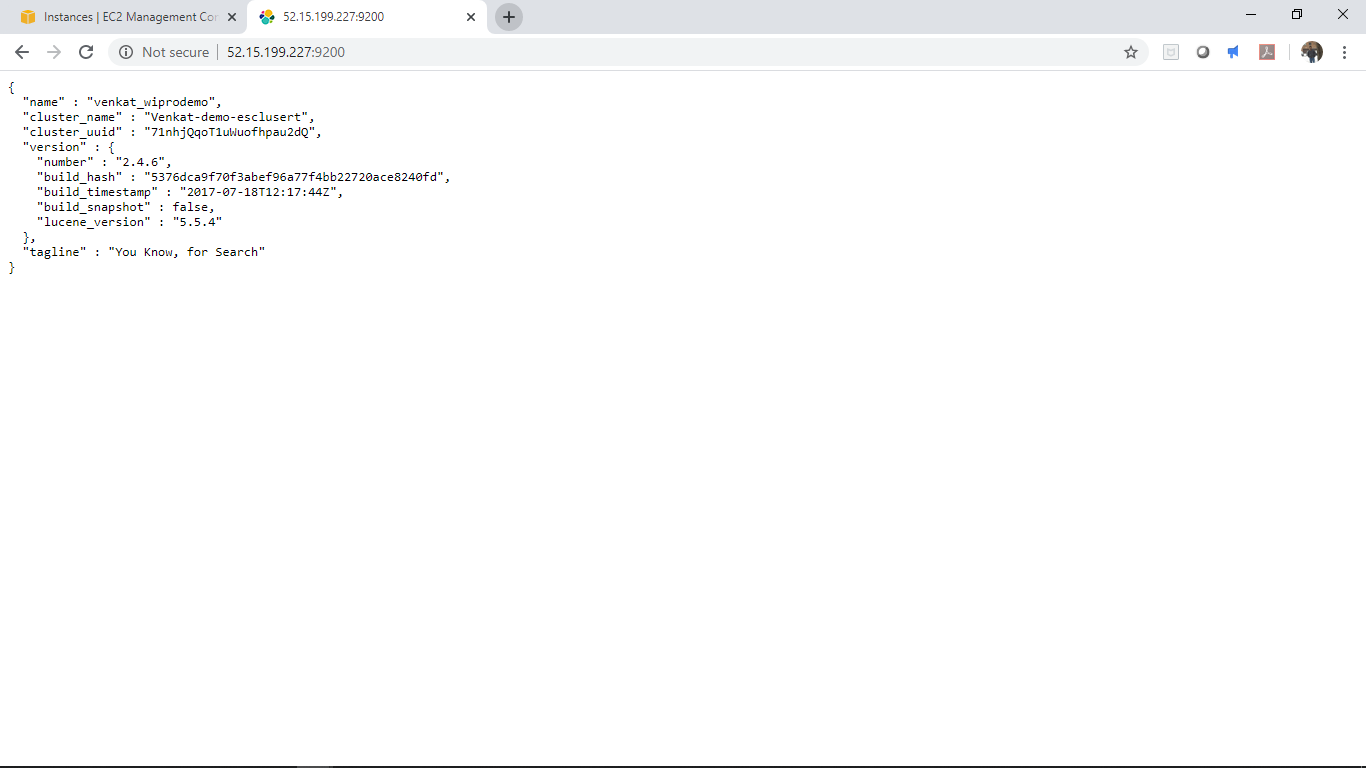


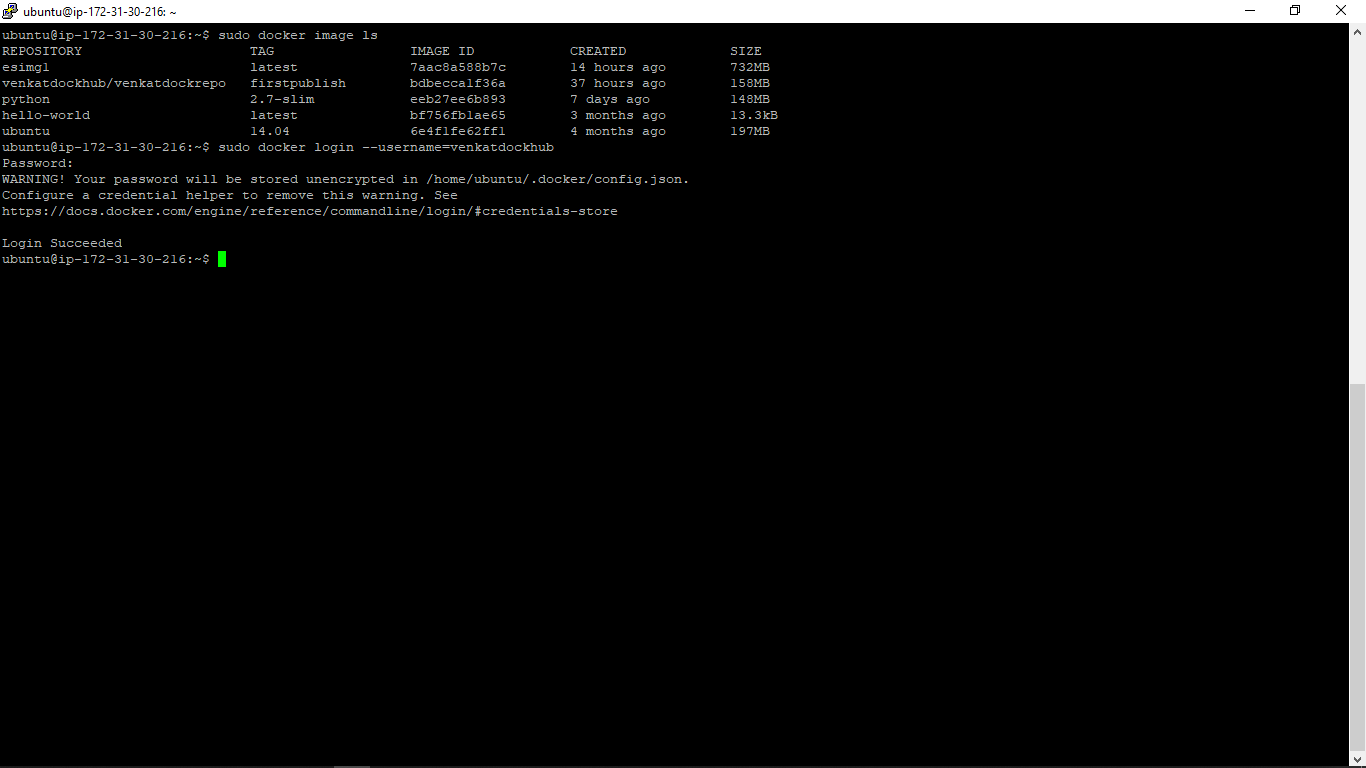


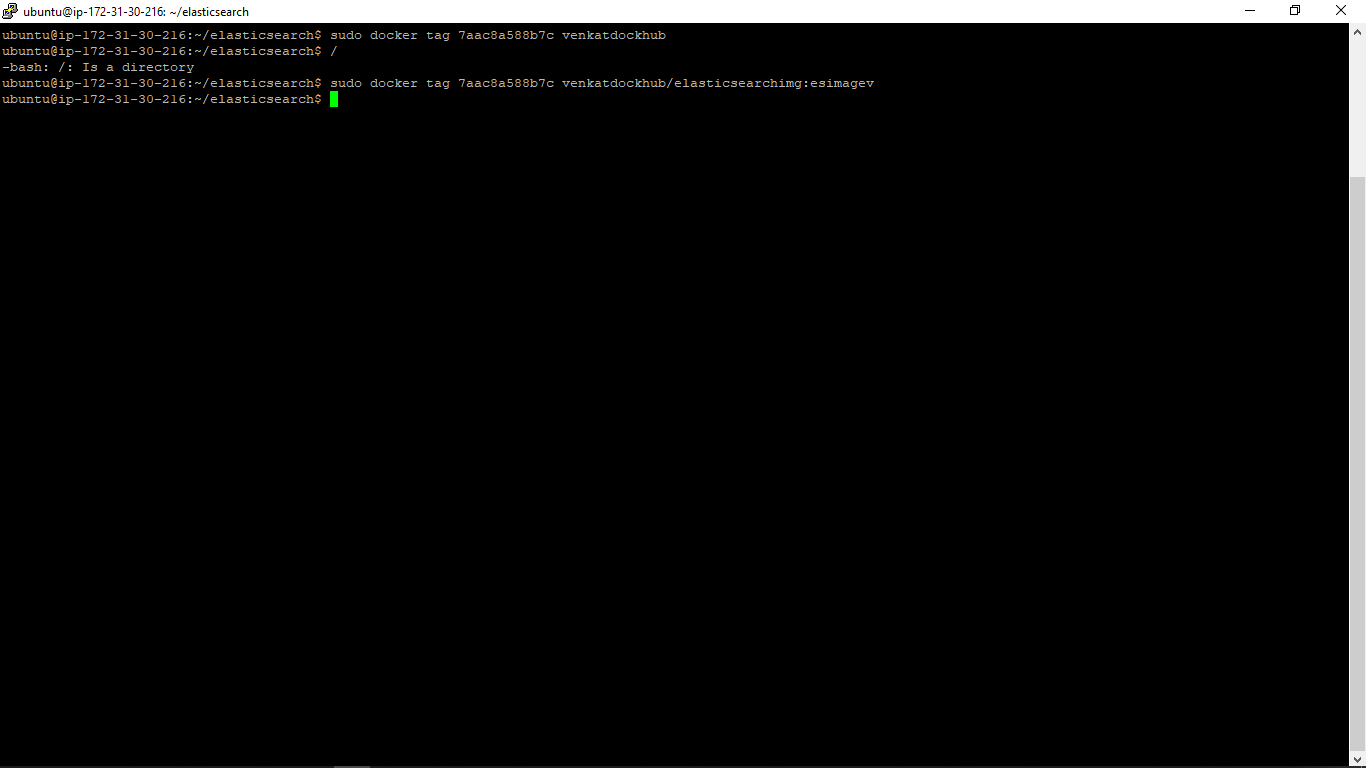


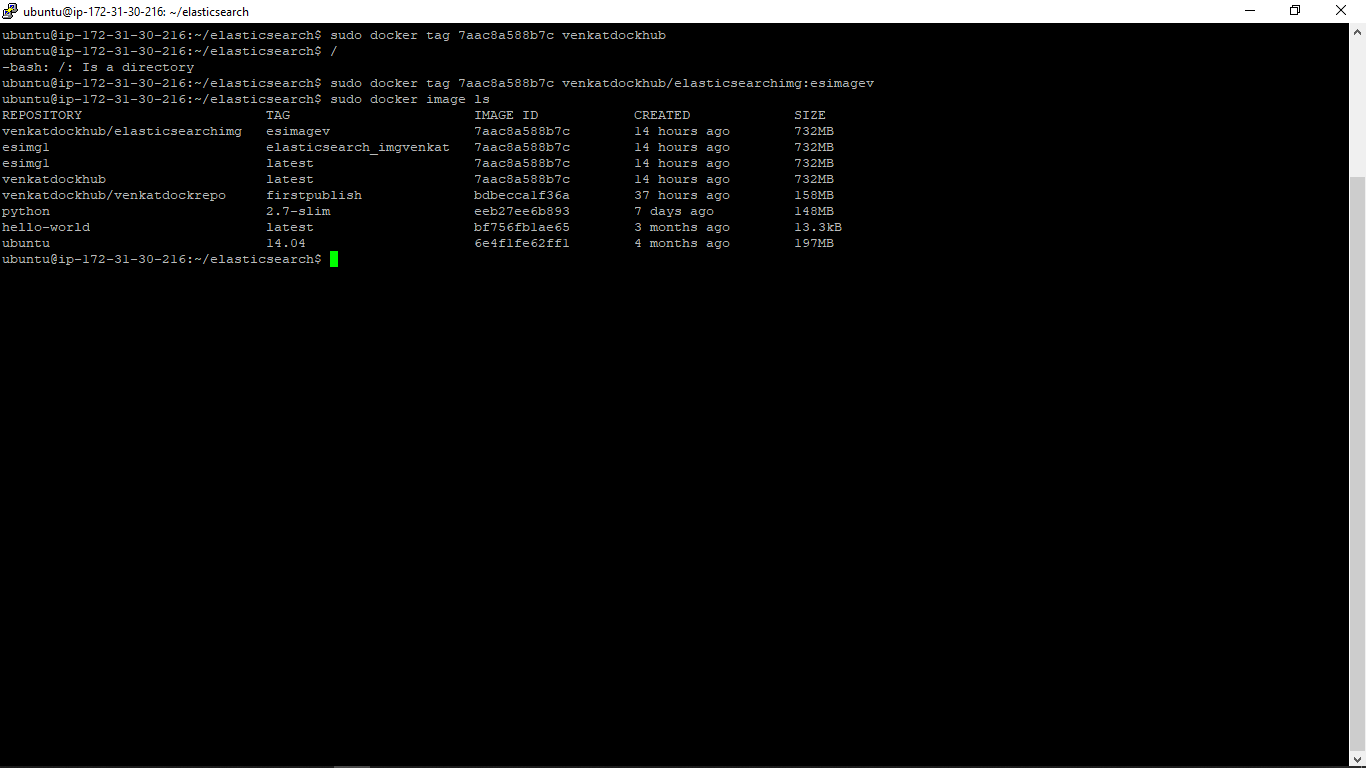




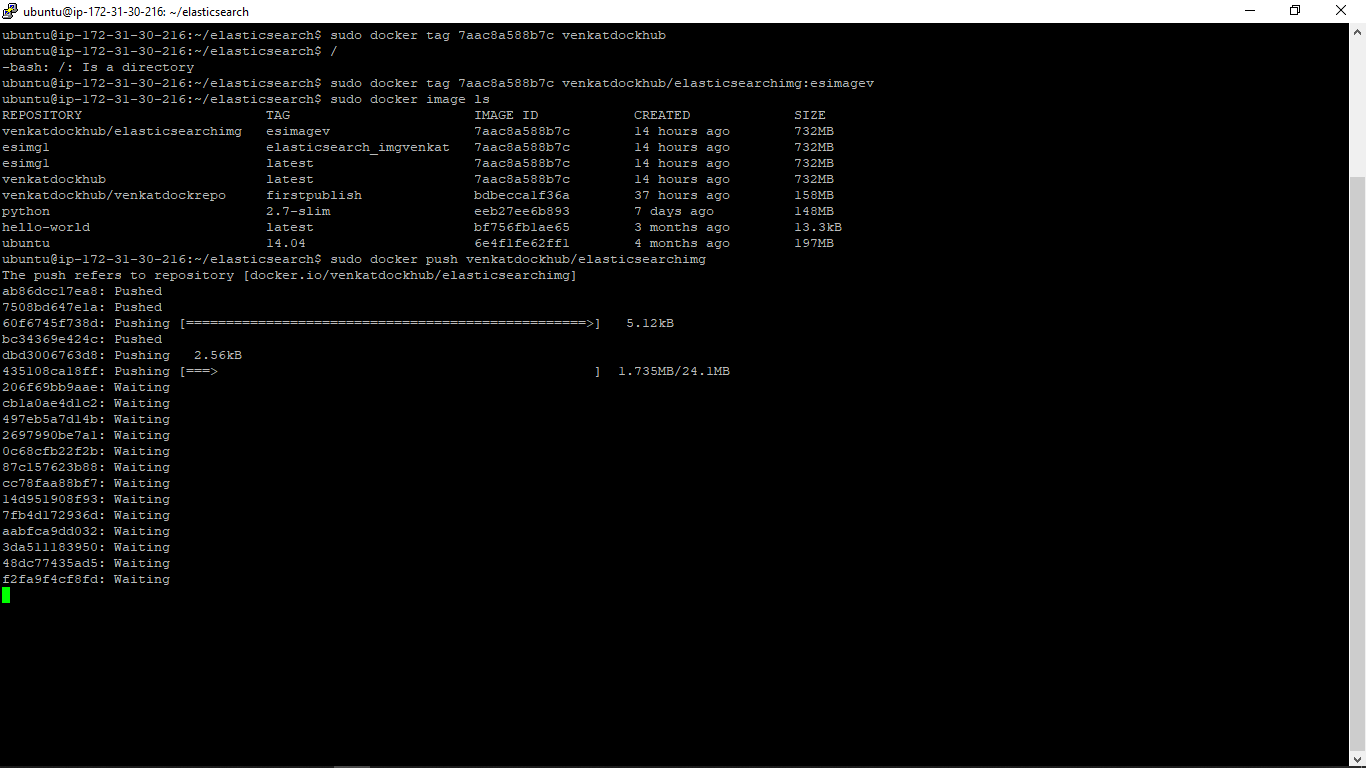


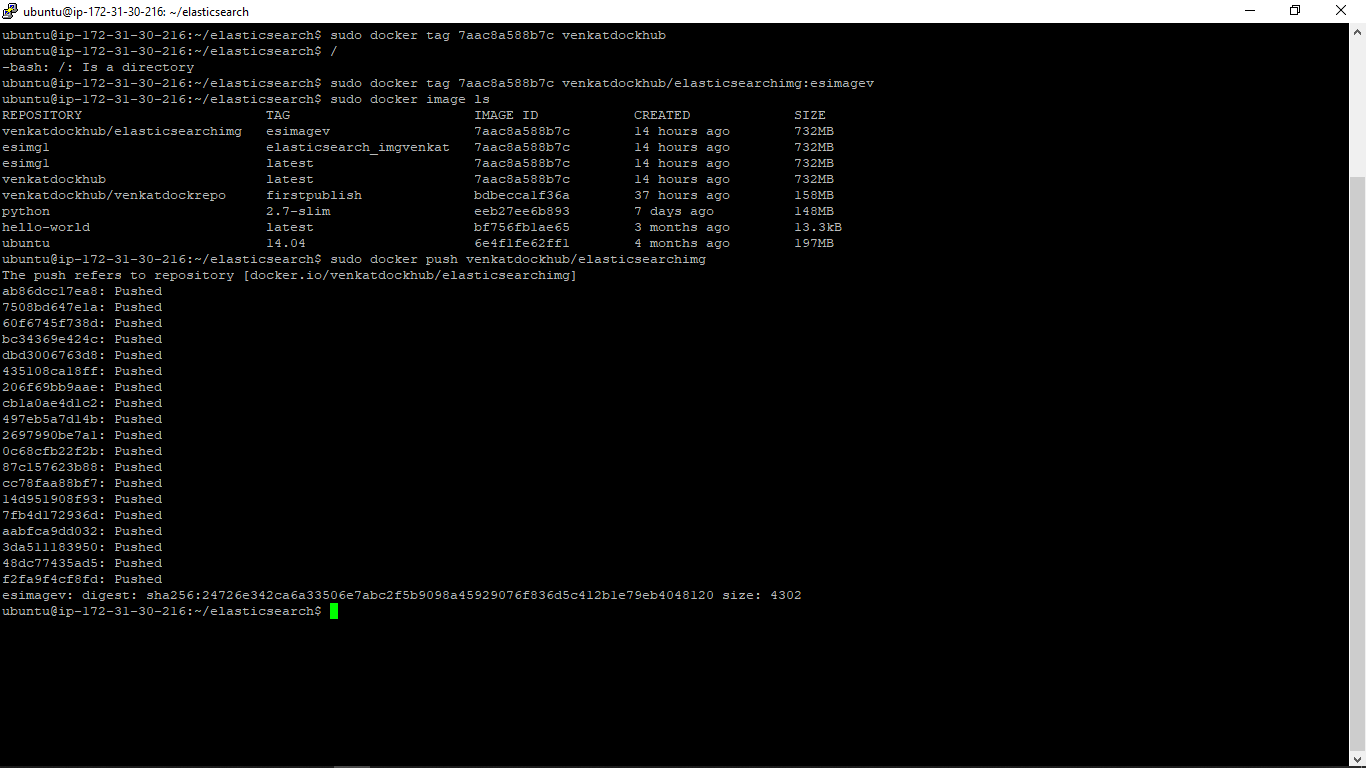


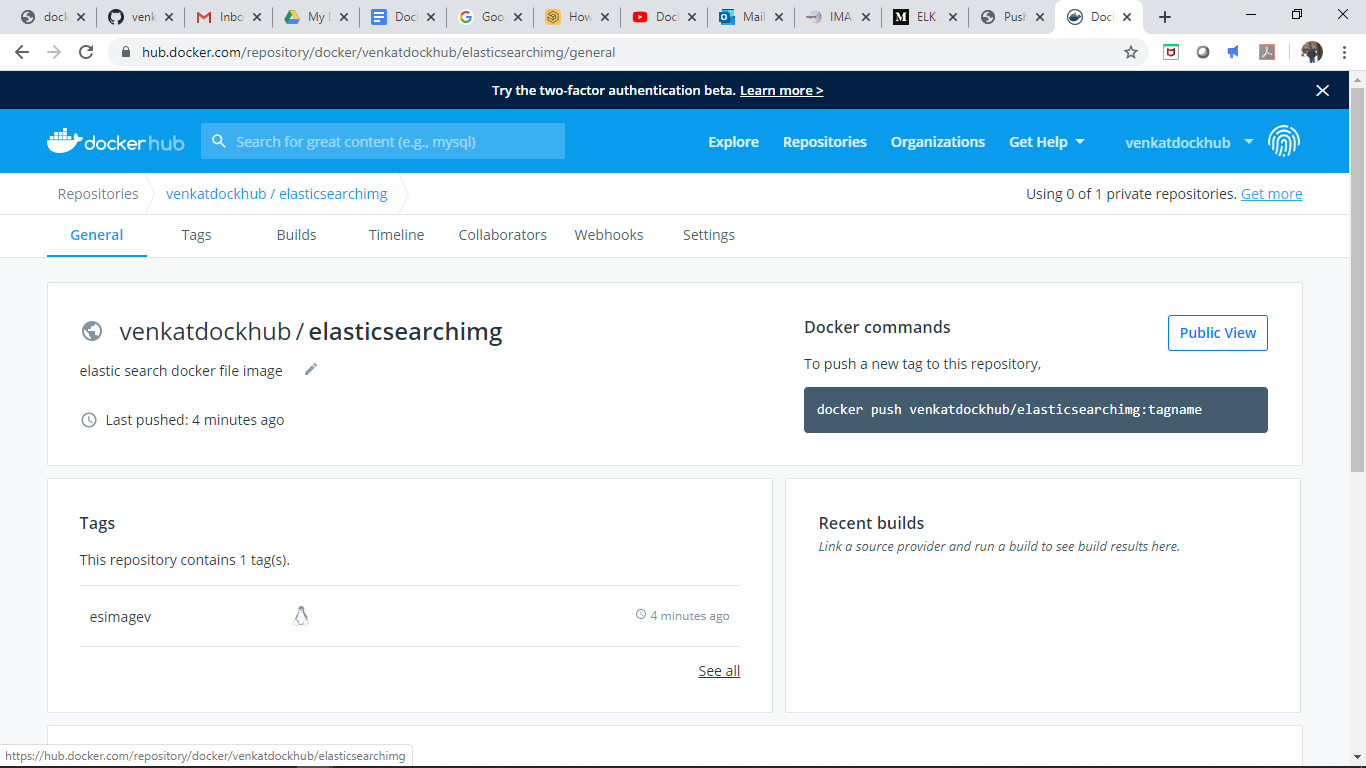




Did a push to dockerhub:







Level 2: Docker compose

Created the docker-compose.yml file for three services i.e. elasticsearch, kibana and logstash as shown below:

