Module 8: Container Management Tools

Demo Document 1

edureka!

To Push An Image Into ECR

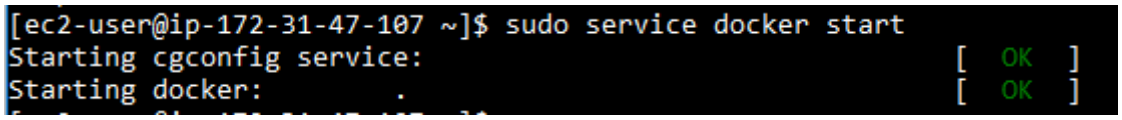
Step 1: Install Docker in your EC2 machine

- Launch an Amazon EC2 machine
- Install docker by typing the below code

```
sudo yum install docker
```

- Start docker by

```
sudo service docker start
```

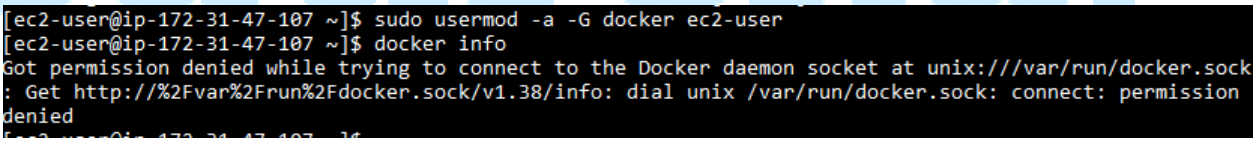


- Add the ec2-user to the docker group so that execute docker commands without sudo

```
sudo usermod -a -G docker ec2-user
```

- Verify the user is added or not by running the below command

```
docker info
```



Step 2: Create a Dockerfile

- Create a Dockerfile by tying the below codes

```
nano Dockerfile
```

```
FROM ubuntu:16.04

# Install dependencies
RUN apt-get update
RUN apt-get -y install apache2

# Install apache and write hello world message
RUN echo 'Hello World!' > /var/www/html/index.html

# Configure apache
RUN echo '. /etc/apache2/envvars' > /root/run_apache.sh
RUN echo 'mkdir -p /var/run/apache2' >> /root/run_apache.sh
RUN echo 'mkdir -p /var/lock/apache2' >> /root/run_apache.sh
RUN echo '/usr/sbin/apache2 -D FOREGROUND' >> /root/run_apache.sh
RUN chmod 755 /root/run_apache.sh

EXPOSE 80

CMD /root/run_apache.sh
```

Step 3: Build a Docker Image from Dockerfile

- Build a Docker image by

```
sudo su
```

```
docker build -t hello-world .
```

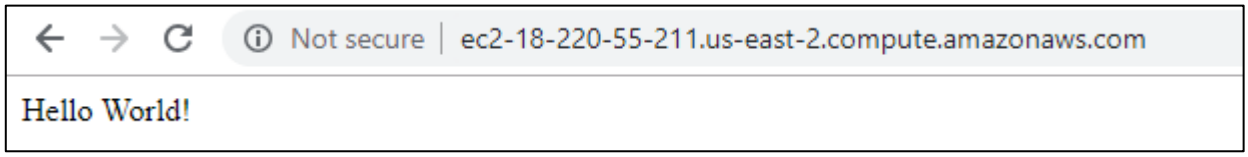
```
[ec2-user@ip-172-31-47-107 ~]$ sudo su
[root@ip-172-31-47-107 ec2-user]# docker build -t hello-world .
Sending build context to Docker daemon  8.704kB
Step 1/11 : FROM ubuntu:16.04
16.04: Pulling from library/ubuntu
7b722c1070cd: Pull complete
5fbf74db61f1: Pull complete
ed41cb72e5c9: Pull complete
7ea47a67709e: Pull complete
Digest: sha256:e4a134999bea4abb4a27bc437e6118fdddfb172e1b9d683129b74d254af51675
Status: Downloaded newer image for ubuntu:16.04
 ---> 7e87e2b3bf7a
Step 2/11 : RUN apt-get update
 ---> Running in d9ec3f01fc42
Get:1 http://security.ubuntu.com/ubuntu xenial-security InRelease [109 kB]
Get:2 http://archive.ubuntu.com/ubuntu xenial InRelease [247 kB]
Get:3 http://security.ubuntu.com/ubuntu xenial-security/main amd64 Packages [795 kB]
Get:4 http://security.ubuntu.com/ubuntu xenial-security/restricted amd64 Packages [12.7 kB]
```

```
docker images --filter reference=hello-world
```

```
[root@ip-172-31-47-107 ec2-user]# docker images --filter reference=hello-world
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
hello-world         latest              c8fb6904fbd5        3 minutes ago       241MB
```

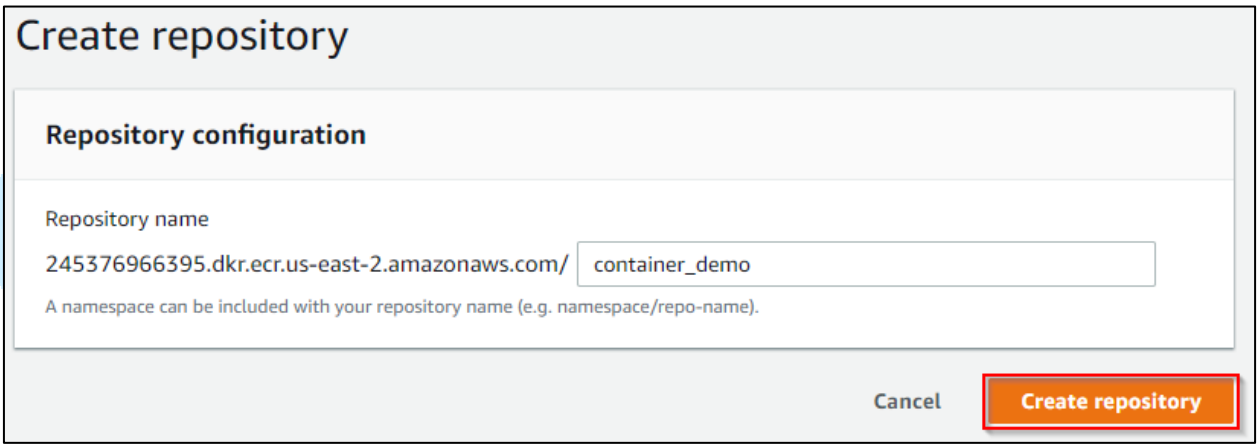
- Build the image into docker container by

```
docker run -p 80:80 hello-world
```



Step 4: Create an ECR repository

- Navigate to your ECS service in the console
- In the Left Dashboard, Select ECR Repository
- Click on Create Repository
- Give a name for your repository and click on create



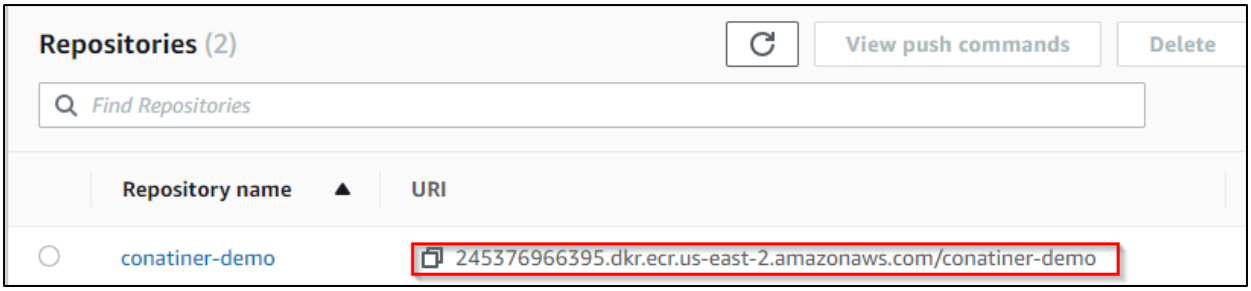
Step 5: Tag and push your image into repository through AWS CLI

- Configure your AWS CLI to the region you have create the repository

```
aws configure
```

- Tag your repository by

```
docker tag hello-world aws_account_id.dkr.ecr.us-east-2.amazonaws.com/repository_name
```



- Get the authentication before you push into repository

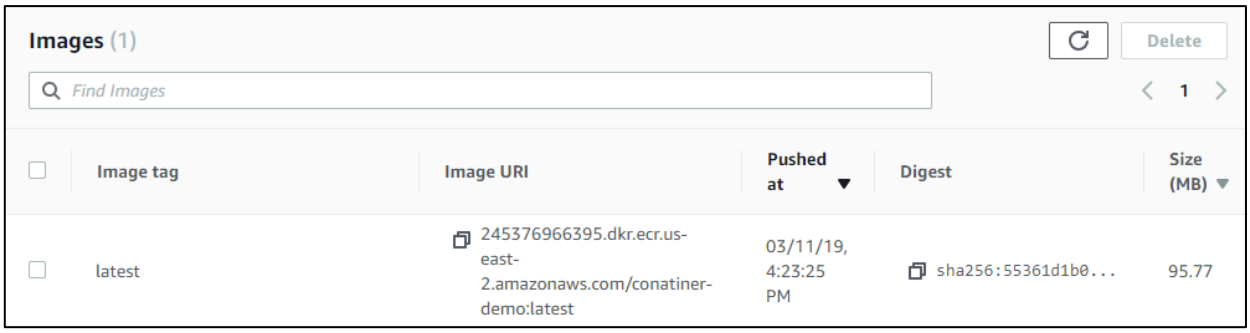
```
aws ecr get-login --no-include-email
```

```
docker login -u AWS -p <your_token_which_is_massive>
```

- Push the image to Amazon ECR

```
docker push aws_account_id.dkr.ecr.us-east-2.amazonaws.com/repository_name
```

```
[root@ip-172-31-47-107 ec2-user]# docker push 245376966395.dkr.ecr.us-east-2.amazonaws.com/conatiner-demo
The push refers to repository [245376966395.dkr.ecr.us-east-2.amazonaws.com/conatiner-demo]
ed946f5390f8: Pushed
d85f529ac8e8: Pushed
84a6c2161bfb: Pushed
e1d43d248e6e: Pushed
feb52d90f50c: Pushed
50b09bc88776: Pushed
c4be77119969: Pushed
efc2c285ab6e: Pushed
68dda0c9a8cd: Pushed
f67191ae09b8: Pushed
b2fd8b4c3da7: Pushed
0de2edf7bff4: Pushed
latest: digest: sha256:55361d1b08031003d16014a7258271411585e936c1b7cb050e091c5bd6e9303f size: 2816
```



- Thus, you have successfully pushed an image into Repository