GitLab CI - Container Registry

Description

Container registry is a storage and content delivery system, which stores their Docker (it is database of predefined images used to run applications.) images.

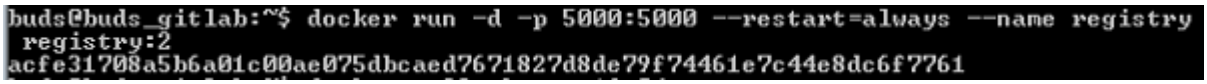
Deploying the Registry

You can deploy the registry by using the below commands −

Step 1 − First, login to your GitLab server using SSH (Secure Shell).

Step 2 − Now start the registry container by using below command −

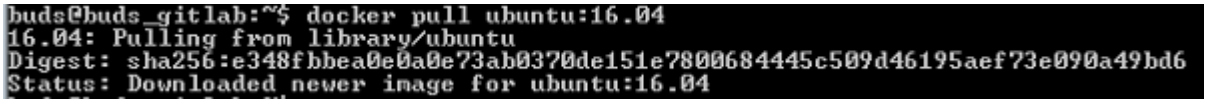
```
$ docker run -d -p 5000:5000 --restart = always --name registry registry:2
```



The *-p 5000:5000* specifies first part as host port and second part as port within the container. The *--restart = always* flag restarts the registry automatically when Docker restarts. The *registry:2* is defined as an image.

Step 3 − Now, pull the image from Docker hub to your registry −

```
$ docker pull ubuntu:16.04
```



The above command pulls the *ubuntu:16.04* image from Docker Hub.

Step 4 − Next, tag the image to point your registry −

```
$ docker tag ubuntu:16.04 localhost:5000/my-ubuntu
```

Here, we are tagging the *localhost:5000/my-ubuntu* image for an existing *ubuntu:16.04* image.

Step 5 − Push the image to local registry which is executing at localhost:5000.

```
$ docker push localhost:5000/my-ubuntu
```

```
buds@buds_gitlab:~$ docker push localhost:5000/my-ubuntu
The push refers to a repository [localhost:5000/my-ubuntu]
db584c622b50: Pushed
52a7ea2bb533: Pushed
52f389ea437e: Pushed
88888b9b1b5b: Pushed
a94e0d5a7c40: Pushed
latest: digest: sha256:0847cc7fed1bfafac713b0aa4ddfb8b9199a99092ae1fc4e718cb28e8
528f65f size: 1357
```

Step 6 − Now remove the cached (*ubuntu:16.04* and *localhost:5000/my-ubuntu*) images from the registry −

```
$ docker image remove ubuntu:16.04
$ docker image remove localhost:5000/my-ubuntu
```

```
buds@buds_gitlab:~$ docker image remove ubuntu:16.04
Untagged: ubuntu:16.04
buds@buds_gitlab:~$ docker image remove localhost:5000/my-ubuntu
Untagged: localhost:5000/my-ubuntu:latest
Untagged: localhost:5000/my-ubuntu@sha256:0847cc7fed1bfafac713b0aa4ddfb8b9199a99
092ae1fc4e718cb28e8528f65f
```

Step 7 − Pull back the *localhost:5000/my-ubuntu* image from local registry −

```
$ docker pull localhost:5000/my-ubuntu
```

```
buds@buds_gitlab:~$ docker pull localhost:5000/my-ubuntu
Using default tag: latest
latest: Pulling from my-ubuntu
Digest: sha256:0847cc7fed1bfafac713b0aa4ddfb8b9199a99092ae1fc4e718cb28e8528f65f
Status: Downloaded newer image for localhost:5000/my-ubuntu:latest
```

Step 8 − Now stop the registry and remove the data −

```
$ docker container stop registry && docker container rm -v registry
```

```
buds@buds_gitlab:~$ docker container stop registry && docker container rm -v re
gistry
registry
registry
```