**Set up the local Docker registry with authentication**

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# To set up the local registry for Docker in Linux system (Ubuntu)

1. Pull the registry image:-

Docker command to pull the registry image

Docker pull registry:2

1. Start your local registry:-

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

1. Get any image from the hub and tag it to point to your registry:-

docker pull ubuntu && docker tag ubuntu localhost:5000/Ubuntu

Here instead of localhost pass the IP of machine where you are going to set up the registry. Once the registry is set you are able to perform pull and push operations of images on registry.

1. Push the images to registry:-

docker push localhost:5000/Ubuntu

1. Pull the image from registery:-

docker pull localhost:5000/Ubuntu

1. To stop your registry, you would:-

Docker stop registry && docker rm -v registry

# To set up the registry with authentication

To set up the basic authentications on local registry first need to generate the key and certificate.

1. Generate domain key and certificate:-

mkdir -p certs && openssl req \ -newkey rsa:4096 -nodes -sha256 -keyout certs/domain.key \ -x509 -days 365 -out certs/domain.crt

1. Be sure to use the name myregistrydomain.com as a CN.
2. Use the result to [start your registry with TLS enabled](https://docs.docker.com/registry/deploying/#get-a-certificate)
3. Instruct every docker daemon to trust that certificate.
4. This is done by copying the domain.crt file to to /etc/docker/certs.d/myregistrydomain.com:5000/ca.crt.
5. Make sure you stopped your registry from the previous steps, then start your registry again with TLS enabled:-

docker run -d -p 5000:5000 --restart=always --name registry \ -v `pwd`/certs:/certs \ -e REGISTRY\_HTTP\_TLS\_CERTIFICATE=/certs/domain.crt \ -e REGISTRY\_HTTP\_TLS\_KEY=/certs/domain.key \ registry:2

1. First create a password file with one entry for the user “testuser”, with password “testpassword”:-

mkdir auth

Docker run –entrypoint htpasswd registry:2 –Bbn testuser testpassword>auth/htpasswd

1. Make sure you stopped your registry from the previous step, then start it again:-

docker run –d –p 5000:5000 –restart=always –name registry \

-v `pwd`/auth:/auth \

-e "REGISTRY\_AUTH=htpasswd" \

-e "REGISTRY\_AUTH\_HTPASSWD\_REALM=Registry Realm" \

-e REGISTRY\_AUTH\_HTPASSWD\_PATH=/auth/htpasswd \

-v `pwd`/certs:/certs \

-e REGISTRY\_HTTP\_TLS\_CERTIFICATE=/certs/domain.crt \

-e REGISTRY\_HTTP\_TLS\_KEY=/certs/domain.key \

registry:2

1. You should now be able to:-

docker login myregistrydomain.com:5000

# Link for the reference

1. <https://docs.docker.com/registry/deploying/>
2. <https://docs.docker.com/registry/insecure/>