

What is docker hub and how it works- Create Docker hub account Dockerhub push and pull

Some Important Commands

- ① Stop all running Containers : `docker stop $(docker ps -a -q)`
- ② Delete all Stopped Containers :-
`docker rm $(docker ps -a -q)`
- ③ Delete all images :- `docker rmi -f $(docker images -q)`

→ Go to AWS account → Select Amazon linux
Now go to putty → Login as - ec2-user

→ `Sudo su` ✓
→ `yum update -y`
→ `yum install docker -y` Docker engine
host ✓
→ `Service docker start`
→ `docker run -it ubuntu /bin/bash`
Now Create Some files inside Container.
Now Create image of this Container.
→ `docker Commit Container1 image1`
Now Create account in hub.docker.com

Now go to EC2 instance
→ `docker login`
enter your username and password
Now give tag to your image
→ `docker tag image1 dockeaid/newimage`
→ `docker push dockeaid/newimage`
Now you can see this image in
docker hub account
Now Create One instance in tokyo
region. and pull image from hub
→ `docker pull dockeaid/newimage`
→ `docker run -it --name mycon
dockeaid/newimage /bin/bash`

→ Mene eak container banaya

```
[root@ip-172-31-41-8 ec2-user]# docker run -it ubuntu /bin/bash
Unable to find image 'ubuntu:latest' locally
latest: Pulling from library/ubuntu
7b1a6ab2e44d: Pull complete
Digest: sha256:626ffe58f6e7566e00254b638eb7e0f3b11d4da9675088f4781a50ae288f3322
Status: Downloaded newer image for ubuntu:latest
root@42f357254b31:/# ls
bin boot dev etc home lib lib32 lib64 libx32 media mnt opt proc root run sbin srv sys tmp usr var
root@42f357254b31:/#
root@42f357254b31:/# exit
exit
```

```
[root@ip-172-31-41-8 ec2-user]# docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS   NAMES
42f357254b31   ubuntu    "/bin/bash"             38 seconds ago Exited (0) 11 seconds ago           peaceful_bouman
[root@ip-172-31-41-8 ec2-user]#
```

```
[root@ip-172-31-41-8 ec2-user]# docker start 42f357254b31
42f357254b31
[root@ip-172-31-41-8 ec2-user]# docker attach 42f357254b31
root@42f357254b31:/#
```

→ Mene apane container kein andar kuch files banayi hai

```
root@42f357254b31:/# ls
bin boot dev etc home lib lib32 lib64 libx32 media mnt opt proc root run sbin srv sys tmp usr var
root@42f357254b31:/# cd tmp/
root@42f357254b31:/tmp# ls
root@42f357254b31:/tmp# touch file1 file2 file3
root@42f357254b31:/tmp# ls
file1 file2 file3
root@42f357254b31:/tmp# exit
exit
[root@ip-172-31-41-8 ec2-user]#
```

→ We have a docker image

```
[root@ip-172-31-41-8 ec2-user]# docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
ubuntu        latest    ba6acccedd29   4 weeks ago    72.8MB
[root@ip-172-31-41-8 ec2-user]#
```

→ Our container:-

```
[root@ip-172-31-41-8 ec2-user]# docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS   NAMES
42f357254b31   ubuntu    "/bin/bash"             2 hours ago    Exited (0) 6 minutes ago           peaceful_bouman
[root@ip-172-31-41-8 ec2-user]#
```

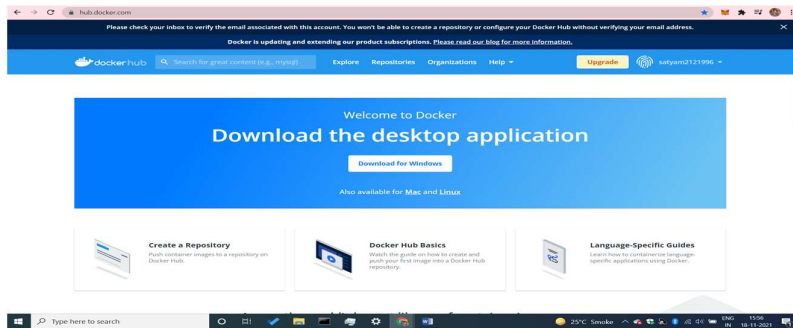
→ Mere pass **peaceful_bouman** naam ka jo container hai aur us container kein andar mene kuch files banayi hai us container ko mein image banana chahata hu toh container ko image mein convert karne kein liye mene commit use kiya hai

```
[root@ip-172-31-41-8 ec2-user]# docker commit peaceful_bouman image1
sha256:b06d552067a8f83b505c7e1c5c201c7d26ca23914e21227f2e50e99dc6ca562c
```

→ Image is created

```
[root@ip-172-31-41-8 ec2-user]# docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
image1        latest    b06d552067a8   6 seconds ago    72.8MB
ubuntu        latest    ba6acccedd29   4 weeks ago    72.8MB
[root@ip-172-31-41-8 ec2-user]#
```

→ Create account in dockerhub



→ Connect your docker hub account in your host machine

```
[root@ip-172-31-41-8 ec2-user]# docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com to create one.
Username: satyam2121996
Password:
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
[root@ip-172-31-41-8 ec2-user]#
```

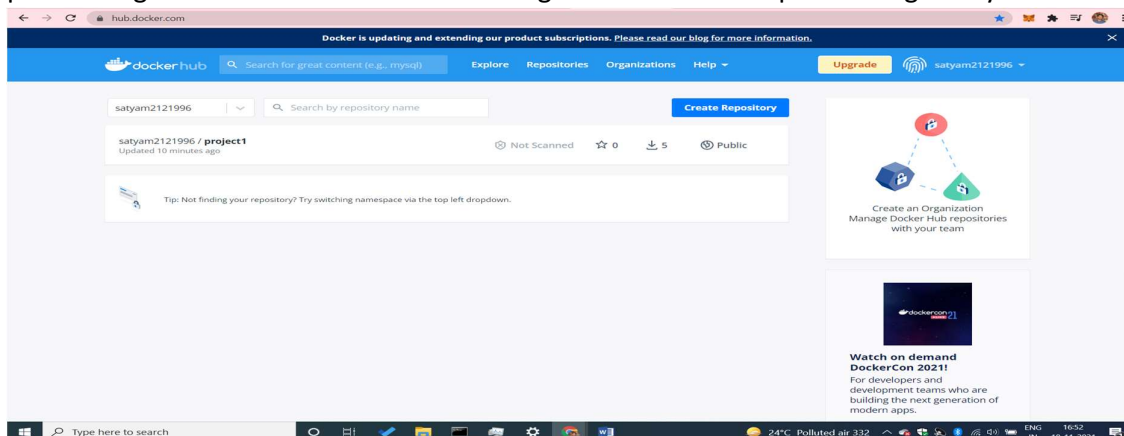
- Mein apne docker-hub par image dalna chahata hu vo image jo mene image1 kein naam sein create kiya hai us image ko mein docker hub par push arna chahata hu.
- Mene image1 ko tag diya hu matlab ki mere dockerhub account par meri ye image ka naam project1 hoga .
- Mene apne dockerhub ki id dalne kein baad tag name diya hai ki project1 kein naam sein iss image ko dockerhub par daal do

```
[root@ip-172-31-41-8 ec2-user]# docker tag image1 satyam2121996/project1
[root@ip-172-31-41-8 ec2-user]#
```

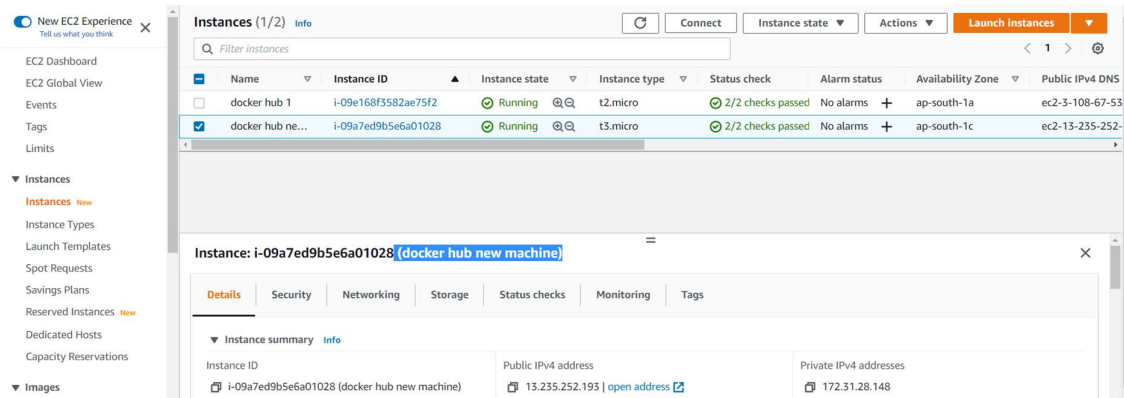
- Mene image k pehale tag name diya project1 kein naam sein aur phir us image ko mene push kar diya dockerhub account par apne.

```
[root@ip-172-31-41-8 ec2-user]# docker push satyam2121996/project1
Using default tag: latest
The push refers to repository [docker.io/satyam2121996/project1]
b195c590c2de: Pushed
9f54eef41275: Mounted from library/ubuntu
latest: digest: sha256:103e2562167098bdced2341cb24fab01dbabce8157fac0ce5ac6bf5c7b8e9574 size: 736
[root@ip-172-31-41-8 ec2-user]#
```

- Hum dekh sakte hai ki humari image humare dockerhub account par show hone lagi , aur ye public image hai hum dekh sakte hai us image mein likha hai ki public image hai yein.



➔ Hum ek naya ec2 instance banayenge aur purana vala bhi chalne denge



Run this command :-

```
[ec2-user@ip-172-31-28-148 ~]$ sudo su
[root@ip-172-31-28-148 ec2-user]# yum update -y
[root@ip-172-31-28-148 ec2-user]# yum install docker -y
```

➔ Abhi hum dekhenge ki humare new ec2 machine kein andar ek bhi image nahi hai.

```
[root@ip-172-31-28-148 ec2-user]# docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
```

➔ Ab hum apne purane vale instance mein jo project1 naam ki image push kiya tha apne docker hub par ab us image ko hum apne new host machine kein andar dockerhub mein pull karlenge.

```
[root@ip-172-31-28-148 ec2-user]# docker pull satyam2121996/project1
Using default tag: latest
latest: Pulling from satyam2121996/project1
7b1a6ab2e44d: Pull complete
d6e25b5b61d6: Pull complete
Digest: sha256:103e2562167098bdc2341cb24fab01dbabce8157fac0ce5ac6bf5c7b8e9574
Status: Downloaded newer image for satyam2121996/project1:latest
docker.io/satyam2121996/project1:latest
[root@ip-172-31-28-148 ec2-user]#
```

➔ Humari image dockerhub mein pull hoke humare account mein humare new host machine kein andar aagayi hai .

```
[root@ip-172-31-28-148 ec2-user]# docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
satyam2121996/project1  latest            b06d552067a8      About an hour ago   72.8MB
[root@ip-172-31-28-148 ec2-user]#
```

➔ Mene image ko container bana diya aur uske andar jaakar dekhunga ki jo file mene image mein pehle dala tha vo file mene jab dockerhub mein pull kiya toh usme dikha raha hai ya nahi

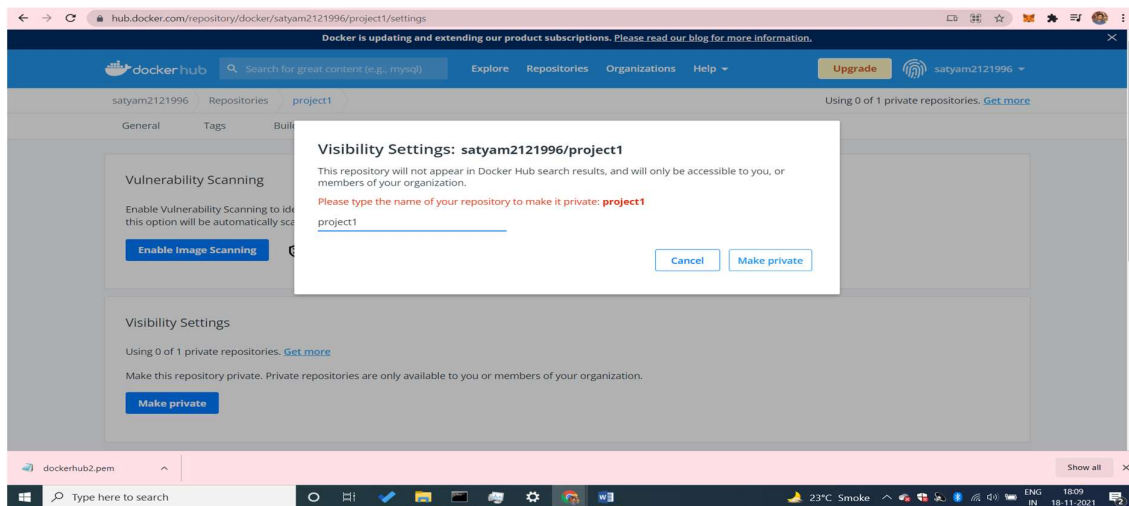
```
[root@ip-172-31-28-148 ec2-user]# docker run -it --name mynewcontainer satyam2121996/project1 /bin/bash
root@8d71aed24eef:/# ls
bin boot dev etc home lib lib32 lib64 libx32 media mnt opt proc root run sbin srv sys tmp usr var
```

- ➔ humane tmp folder mein andar ye file banayi thii aur jab docker image ko pull karke yaha laya new host machine mein andar toh sab file mujhe dikha rahi hai.

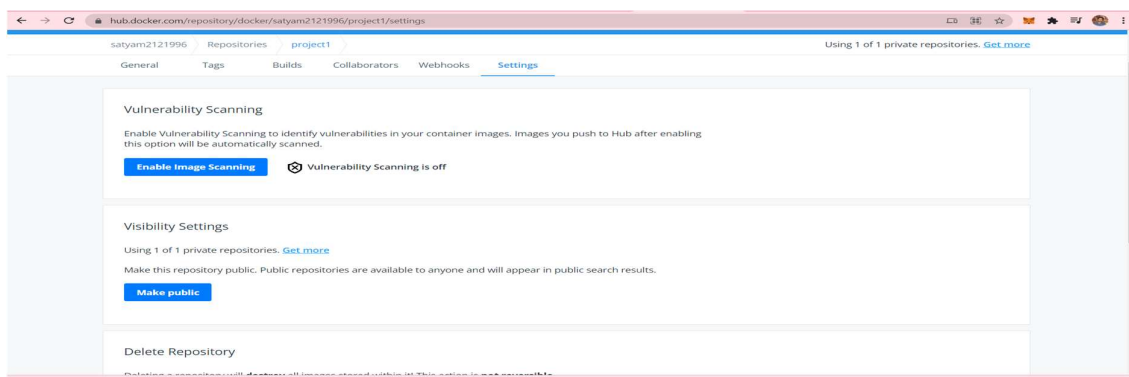
```
root@8d71aed24eef:/# cd tmp
root@8d71aed24eef:/tmp# ls
file1 file2 file3
```

- ➔ agar mujhe apni image ko dockerhub par private karni hai toh hum uske liye is url par jayenge aur make private kar denge.

<https://hub.docker.com/repository/docker/satyam2121996/project1/settings>



- ➔ ab hum dekhenge kaha make private likha aaraha tha vaha make public likha aaraha ab, humari image private ho gayi ab jiske pass username id password hoga kewal vahi humari image ko pull kar payega .



- ➔ humane jab image ko private kar diya uske baad bina login kare jab image ko pull kar rahe toh vo humko mana kar de raha keh raha pehle login karo

```
[root@ip-172-31-28-148 ec2-user]# docker pull satyam2121996/project1
Using default tag: latest
Error response from daemon: pull access denied for satyam2121996/project1, repository does not exist or may require 'docker login': denied: requested access to the resource is denied
[root@ip-172-31-28-148 ec2-user]#
```


➔ mene apane new host machine kein andar docker login kar liya aur ab hum login karne kein baad again pull karenge

```
[root@ip-172-31-28-148 ec2-user]# docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com to create one.
Username: satyam2121996
Password:
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store
Login Succeeded
```

➔ humane login karne kein baad jab pull kiya toh humari image pull hokar aagayi

```
[root@ip-172-31-28-148 ec2-user]# docker pull satyam2121996/project1
Using default tag: latest
latest: Pulling from satyam2121996/project1
Digest: sha256:103e2562167098bdc2341cb24fab01dbabce8157fac0ce5ac6bf5c7b8e9574
Status: Image is up to date for satyam2121996/project1:latest
docker.io/satyam2121996/project1:latest
[root@ip-172-31-28-148 ec2-user]#
```

➔ agar docker hub sein bhi humko image delete karna hai toh settings mein jaake delete repository kar sakte hai .

