Cloud Computing

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Ss1

Ss2 :

Ss3 :

```
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077$ docker pull python:3.10-slim
3.10-slim: Pulling from library/python
Digest: sha256:218027ad8e5a6fb68245ccffcb8bcfa98d9891039bfedd53b1b4666dc48a4bb1
Status: Image is up to date for python:3.10-slim
docker.io/library/python:3.10-slim
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077$ docker images
                                                                            Info →   U  In Use

IMAGE               ID              DISK USAGE    CONTENT SIZE    EXTRA
hello-world:latest  05813aedc15f    25.9kB        9.52kB          U
python:3.10-slim    218027ad8e5a    185MB         47.1MB
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077$
```

Ss4 :

```
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$ docker build -t spam-web-app-p
es2ug23cs077 .
[+] Building 69.7s (12/12) FINISHED                                                             docker:default
 => [internal] load build definition from Dockerfile                                                      0.0s
 => => transferring dockerfile: 294B                                                                      0.0s
 => [internal] load metadata for docker.io/library/python:3.10-slim                                       0.0s
 => [internal] load .dockerignore                                                                         0.0s
 => => transferring context: 2B                                                                           0.0s
 => [1/7] FROM docker.io/library/python:3.10-slim@sha256:218027ad8e5a6fb68245ccffcb8bcfa98d9891039bfedd53b1b4666d  0.0s
 => => resolve docker.io/library/python:3.10-slim@sha256:218027ad8e5a6fb68245ccffcb8bcfa98d9891039bfedd53b1b4666d  0.0s
 => [internal] load build context                                                                         0.0s
 => => transferring context: 184B                                                                         0.0s
 => CACHED [2/7] WORKDIR /app                                                                             0.0s
 => CACHED [3/7] COPY app.py ./                                                                           0.0s
 => CACHED [4/7] COPY spam_classifier_model.pkl ./                                                        0.0s
 => CACHED [5/7] COPY tfidf_vectorizer.pkl ./                                                             0.0s
 => CACHED [6/7] COPY templates ./templates                                                               0.0s
 => [7/7] RUN pip install --no-cache-dir flask scikit-learn joblib                                       57.8s
 => exporting to image                                                                                   11.6s
 => => exporting layers                                                                                   9.5s
 => => exporting manifest sha256:d7e04a916570b55c9ac958f4237b43c689eb49a33debc5c882cb4648ff9c8e39         0.0s
 => => exporting config sha256:29e96e8a0fa1b47662deecb5349b328d771cd2e91835ef3710213dc4e3f70081           0.0s
 => => exporting attestation manifest sha256:7368c6befc0516333f936491628be1828f437a6e6c251804094005e2a40c2471  0.0s
 => => exporting manifest list sha256:4fbb839db3a1063641613bab3f07681b0de4513408bb5d9a5c2c32991bd4dad3    0.0s
 => => naming to docker.io/library/spam-web-app-pes2ug23cs077:latest                                      0.0s
 => => unpacking to docker.io/library/spam-web-app-pes2ug23cs077:latest                                   2.0s
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$
```
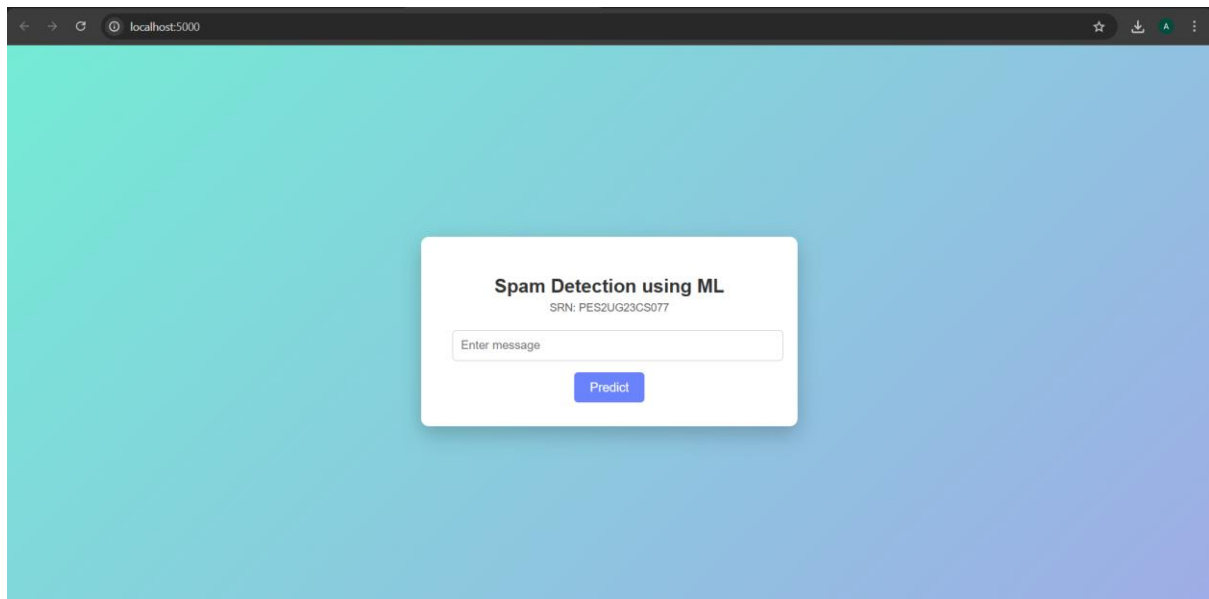
Ss5 :

```
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$ docker stop ef2674f960e0
docker rm ef2674f960e0
docker run -d -p 5000:5000 spam-web-app-pes2ug23cs077
ef2674f960e0
ef2674f960e0
f875e5cac6a27f6a923ed92c0050dc211e21c264c0f874b281917a9802e9bcd1
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$ docker ps
CONTAINER ID  IMAGE                        COMMAND          CREATED         STATUS         PORTS                                        NAMES
f875e5cac6a2  spam-web-app-pes2ug23cs077   "python app.py"  15 seconds ago  Up 15 seconds  0.0.0.0:5000->5000/tcp, [::]:5000->5000/tcp  admiring_hypati
a
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$
```

Ss6 :

Ss7 :

```
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$ docker login
Authenticating with existing credentials... [Username: pes2ug23cs077]

Info → To login with a different account, run 'docker logout' followed by 'docker login'


Login Succeeded
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$
```

Ss8 :

```
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$ docker tag spam-web-app-pes2ug23cs077 PES2UG23CS077/spam-web-app-p
es2ug23cs077:v1
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$ docker images
                                                                                                          Info →   U   In Use
IMAGE                                      ID              DISK USAGE   CONTENT SIZE   EXTRA
PES2UG23CS077/spam-web-app-pes2ug23cs077:v1 4fbb839db3a1       541MB          125MB     U
hello-world:latest                         05813aedc15f      25.9kB         9.52kB     U
python:3.10-slim                           218027ad8e5a       185MB         47.1MB
spam-web-app-pes2ug23cs077:latest          4fbb839db3a1       541MB          125MB     U
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$
```
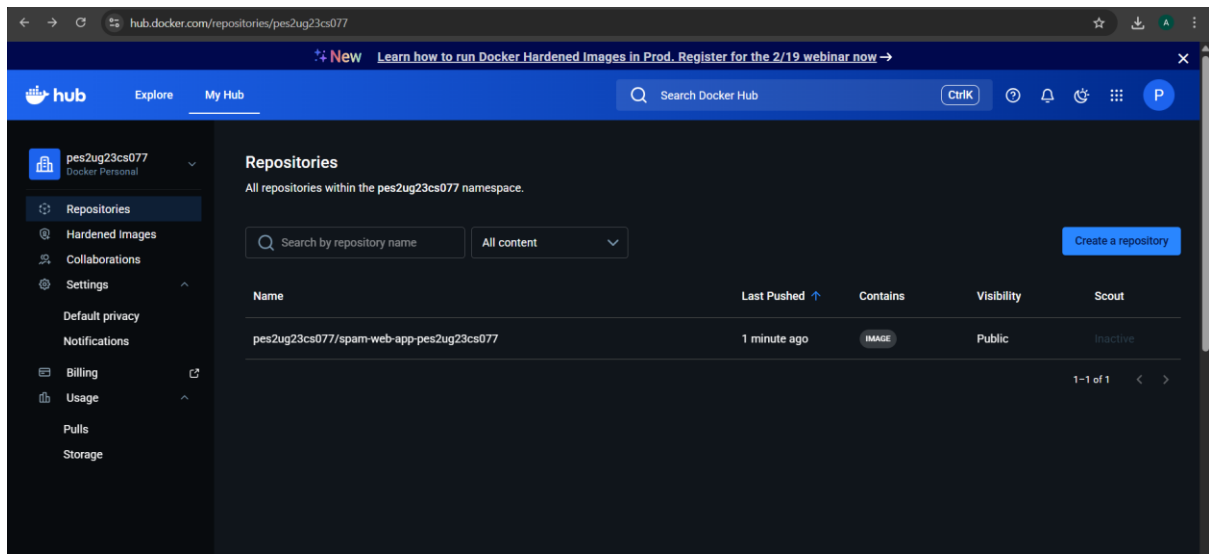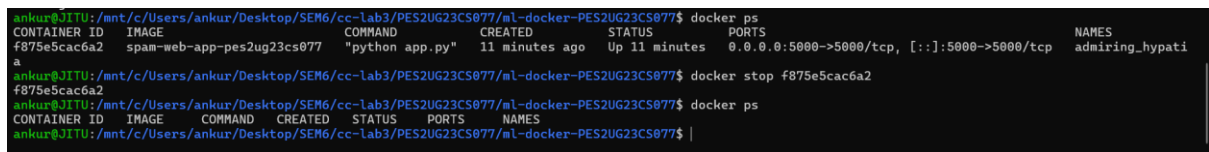
Ss9 :

```
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$ docker push pes2ug23cs077/spam-web-app-pes2ug23cs077:v1
The push refers to repository [docker.io/pes2ug23cs077/spam-web-app-pes2ug23cs077]
d0d1977db485: Mounted from library/python
0c998ddbabe7: Pushed
63ebb7511fc1: Mounted from library/python
a561ed5ed89e: Pushed
1330e9a854de: Pushed
0c8d55a45c0d: Mounted from library/python
af73e00cfa30: Pushed
3340314a5991: Pushed
e919bd7eaa99: Pushed
690eaffcf0e9: Mounted from library/python
c471aa3d4545: Pushed
v1: digest: sha256:4fbb839db3a1063641613bab3f07681b0de4513408bb5d9a5c2c32991bd4dad3 size: 856
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$ |
```
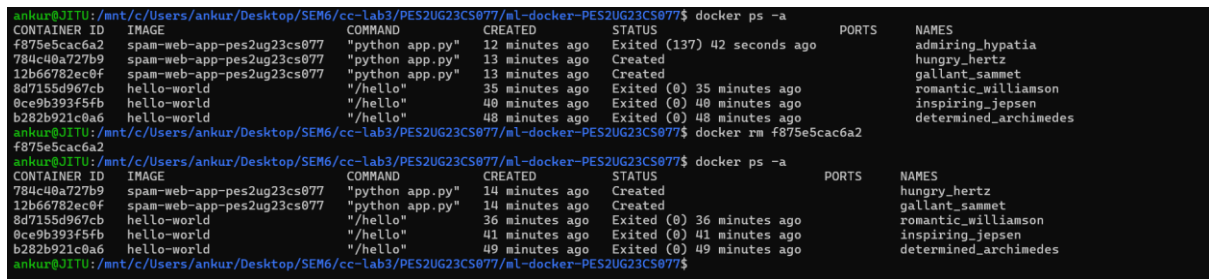
Ss10 :

Ss11 :

Ss12 :

Ss13 :

Ss14 :

```
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$ docker rm 784c40a727b9
784c40a727b9
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$ docker rm 12b66782ec0f
12b66782ec0f
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$ docker rmi spam-web-app-pes2ug23cs077:latest
Untagged: spam-web-app-pes2ug23cs077:latest
Deleted: sha256:4fbb839db3a1063641613bab3f07681b0de4513408bb5d9a5c2c32991bd4dad3
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$ docker ps -a
CONTAINER ID   IMAGE         COMMAND     CREATED          STATUS                      PORTS      NAMES
8d7155d967cb   hello-world   "/hello"    44 minutes ago   Exited (0) 44 minutes ago              romantic_williamson
0ce9b393f5fb   hello-world   "/hello"    50 minutes ago   Exited (0) 50 minutes ago              inspiring_jepsen
b282b921c0a6   hello-world   "/hello"    58 minutes ago   Exited (0) 58 minutes ago              determined_archimedes
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$
```

PES2UG23CS077

Yes, Docker provides commands to delete images completely in one go.

The command docker rmi -f $(docker images -q) can be used to remove all Docker images from the local system forcefully.

Another useful command is docker system prune -a, which removes all unused containers, images, networks, and build cache in one go, helping to free up disk space.

Ss15 :

```
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$ docker pull pes2ug23cs077/spam-web-app-pes2ug23cs077:v1
v1: Pulling from pes2ug23cs077/spam-web-app-pes2ug23cs077
c471aa3d4545: Pull complete
e919bd7eaa99: Pull complete
0c998ddbabe7: Pull complete
a561ed5ed89e: Pull complete
3340314a5991: Pull complete
1330e9a854de: Pull complete
af73e00cfa30: Download complete
Digest: sha256:4fbb839db3a1063641613bab3f07681b0de4513408bb5d9a5c2c32991bd4dad3
Status: Downloaded newer image for pes2ug23cs077/spam-web-app-pes2ug23cs077:v1
docker.io/pes2ug23cs077/spam-web-app-pes2ug23cs077:v1
ankur@JITU:/mnt/c/Users/ankur/Desktop/SEM6/cc-lab3/PES2UG23CS077/ml-docker-PES2UG23CS077$
```