

CLOUD COMPUTING LAB-3

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SEC: A

Git hub link: <https://github.com/PES2UG23CS925/Cloud-Computing-lab>

SS1:

```
aakanksha@Aakanksha: /mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker run hello-world

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

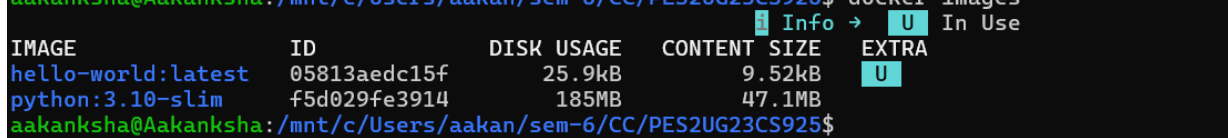
For more examples and ideas, visit:
https://docs.docker.com/get-started/

aakanksha@Aakanksha: /mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ |
```

SS2:

```
aakanksha@Aakanksha: /mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
aakanksha@Aakanksha: /mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker ps -a
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
fe378c4c0a59   hello-world   "/hello"   About a minute ago   Exited (0) About a minute ago   crazy_moser
4f7605b79d0b   hello-world   "/hello"   16 hours ago        Exited (0) 16 hours ago        serene_kepler
aakanksha@Aakanksha: /mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker images
INFO → U In Use
IMAGE          ID              DISK USAGE  CONTENT SIZE  EXTRA
hello-world:latest  05813aedc15f    25.9kB      9.52kB        U
aakanksha@Aakanksha: /mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$
```

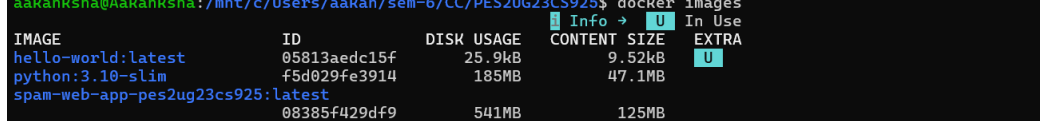
SS3:

```
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker pull python:3.10-slim
3.10-slim: Pulling from library/python
47c2bec0e44b: Pull complete
119d43eec815: Pull complete
ed8cfd59ed51: Pull complete
af233a02f79e: Pull complete
b3e684e4d1bb: Download complete
f81c64c75055: Download complete
Digest: sha256:f5d029fe39146b08200bcc73595795ac19b85997ad0e5001a02c7c32e8769efa
Status: Downloaded newer image for python:3.10-slim
docker.io/library/python:3.10-slim
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker images


| IMAGE              | ID           | DISK USAGE | CONTENT SIZE | EXTRA |
|--------------------|--------------|------------|--------------|-------|
| hello-world:latest | 05813aedc15f | 25.9kB     | 9.52kB       | U     |
| python:3.10-slim   | f5d029fe3914 | 185MB      | 47.1MB       |       |


```


SS4:

```
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker build -t spam-web-app-pes2ug23cs925 .
[+] Building 97.6s (12/12) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 827B
=> [internal] load metadata for docker.io/library/python:3.10-slim
=> [internal] load .dockerignore
=> => transferring context: 28
=> CACHED [1/7] FROM docker.io/library/python:3.10-slim@sha256:f5d029fe3914
=> => resolve docker.io/library/python:3.10-slim@sha256:f5d029fe3914
=> [internal] load build context
=> => transferring context: 398.78kB
=> [2/7] WORKDIR /app
=> [3/7] COPY app.py ./
=> [4/7] COPY spam_classifier_model.pkl ./
=> [5/7] COPY tfidf_vectorizer.pkl ./
=> [6/7] COPY templates ./templates
=> [7/7] RUN pip install --no-cache-dir flask scikit-learn joblib
=> exporting to image
=> => exporting layers
=> => exporting manifest sha256:5ed62256b868a78d8ca1ab93279d266c40a4
=> => exporting config sha256:fe5144686e0efcde279034f602a94a6e524d82
=> => exporting attestation manifest sha256:d2bbea494732ccb167d35aec
=> => exporting manifest list sha256:08385f429df969c55c690fc3371713c
=> => naming to docker.io/library/spam-web-app-pes2ug23cs925:latest
=> => unpacking to docker.io/library/spam-web-app-pes2ug23cs925:late
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker images


| IMAGE                             | ID           | DISK USAGE | CONTENT SIZE | EXTRA |
|-----------------------------------|--------------|------------|--------------|-------|
| hello-world:latest                | 05813aedc15f | 25.9kB     | 9.52kB       | U     |
| python:3.10-slim                  | f5d029fe3914 | 185MB      | 47.1MB       |       |
| spam-web-app-pes2ug23cs925:latest | 08385f429df9 | 541MB      | 125MB        |       |


```

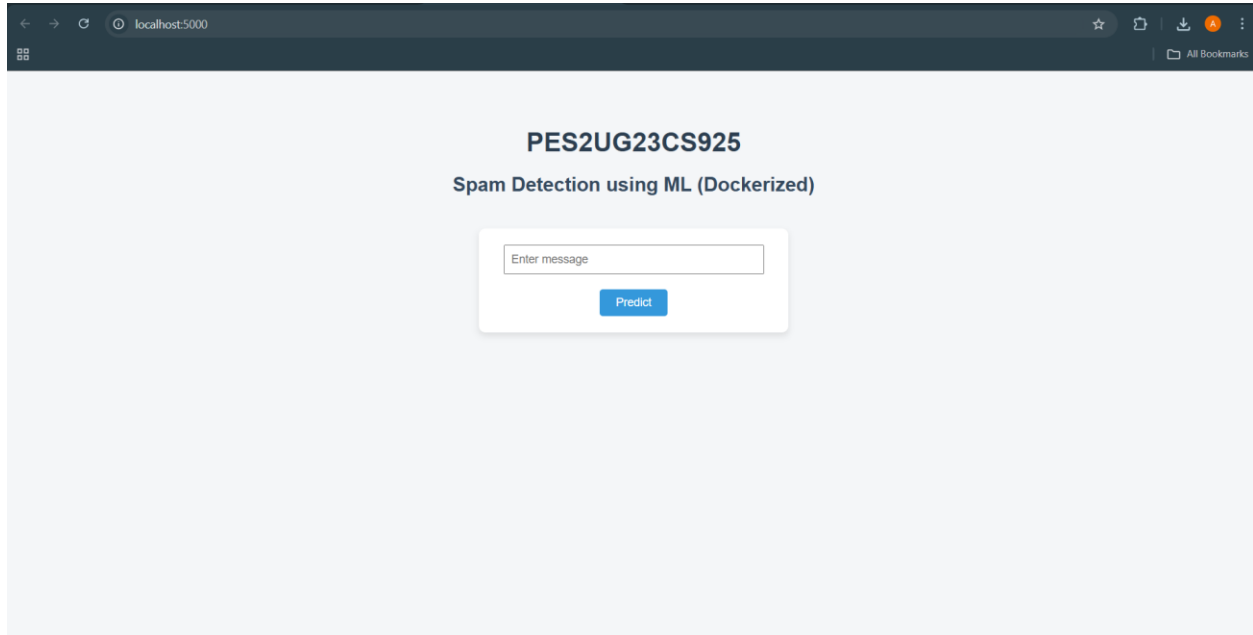
SS5:

```
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker run -d -p 5000:5000 spam-web-app-pes2ug23cs925
fb4769442d50d8928cfd16db0f7d11691618f838391441773d1b01850f0066d
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker ps


| CONTAINER ID | IMAGE                      | COMMAND         | CREATED        | STATUS        | PORTS                                       | NAMES          |
|--------------|----------------------------|-----------------|----------------|---------------|---------------------------------------------|----------------|
| fb4769442d50 | spam-web-app-pes2ug23cs925 | "python app.py" | 14 seconds ago | Up 13 seconds | 0.0.0.0:5000->5000/tcp, [::]:5000->5000/tcp | objective_borg |


```

SS6:



SS7:

```
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker login
Authenticating with existing credentials... [Username: pes2ug23cs925]

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

Login Succeeded
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$
```

SS8:

```
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker tag spam-web-app-pes2ug23cs925 PES2UG23CS925/spam-web-app-pes2ug23cs925:v1
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker images
```

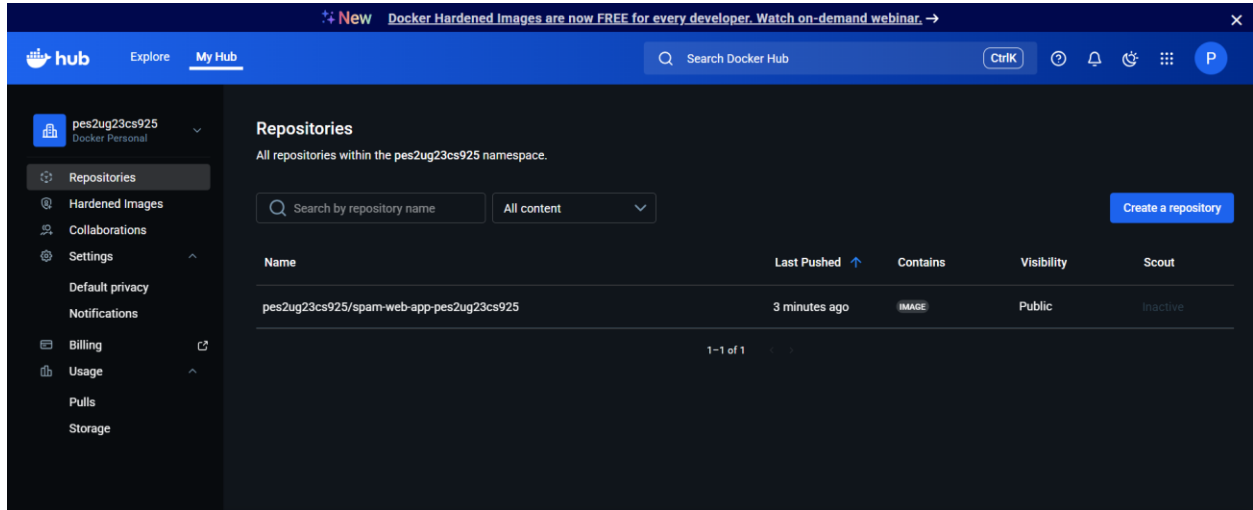
IMAGE	ID	DISK USAGE	Info →	U	In Use	EXTRA
PES2UG23CS925/spam-web-app-pes2ug23cs925:v1	08385f429df9	541MB				
hello-world:latest	05813aedc15f	25.9kB				
python:3.10-slim	f5d029fe3914	185MB				
spam-web-app-pes2ug23cs925:latest	08385f429df9	541MB				

```
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$
```

SS9:

```
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker push pes2ug23cs925/spam-web-app-pes2ug23cs925:v1
The push refers to repository [docker.io/pes2ug23cs925/spam-web-app-pes2ug23cs925]
ed8cfd59ed51: Mounted from library/python
119d43eec815: Mounted from library/python
47c2bec0e44b: Mounted from library/python
af233a02f79e: Mounted from library/python
93a675f93839: Pushed
2a7e7d96a849: Pushed
322dd709c0fe: Pushed
cf28112140f8: Pushed
daf5da1625c5: Pushed
4f247b1bc16b: Pushed
7785c9a33b69: Pushed
v1: digest: sha256:08385f429df969c55c690fc3371713ca0d493887618cf965cafd5615872ec82c size: 856
```

SS10:



SS11:

```
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS                               NAMES
fb4769442d50   spam-web-app-pes2ug23cs925         "python app.py"         18 minutes ago Up 18 minutes 0.0.0.0:5000->5000/tcp, [::]:5000->5000/tcp  objective_borg
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker stop fb4769442d50
fb4769442d50
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS                               NAMES
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$
```

SS12:

```
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker ps -a
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS                               NAMES
fb4769442d50   spam-web-app-pes2ug23cs925         "python app.py"         20 minutes ago Exited (137) 58 seconds ago          objective_borg
fe378c4c0a59   hello-world                         "/hello"               46 minutes ago Exited (0) 46 minutes ago          crazy_moser
4f7605b79d0b   hello-world                         "/hello"               17 hours ago   Exited (0) 17 hours ago          serene_kepler
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker rm fb4769442d50
fb4769442d50
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker ps -a
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS                               NAMES
fe378c4c0a59   hello-world                         "/hello"               46 minutes ago Exited (0) 46 minutes ago          crazy_moser
4f7605b79d0b   hello-world                         "/hello"               17 hours ago   Exited (0) 17 hours ago          serene_kepler
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$
```


SS13:










```
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker images
IMAGE                                ID                                DISK USAGE    CONTENT SIZE  EXTRA
PES2UG23CS925/spam-web-app-pes2ug23cs925:v1  08385f429df9                    541MB         125MB
hello-world:latest                      05813aedc15f                    25.9kB        9.52kB        U
pes2ug23cs925/spam-web-app-pes2ug23cs925:v1  08385f429df9                    541MB         125MB
python:3.10-slim                       f5d029fe3914                    185MB         47.1MB
spam-web-app-pes2ug23cs925:latest         08385f429df9                    541MB         125MB
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker rmi spam-web-app-pes2ug23cs925:latest
Untagged: spam-web-app-pes2ug23cs925:latest
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker images
IMAGE                                ID                                DISK USAGE    CONTENT SIZE  EXTRA
PES2UG23CS925/spam-web-app-pes2ug23cs925:v1  08385f429df9                    541MB         125MB
hello-world:latest                      05813aedc15f                    25.9kB        9.52kB        U
pes2ug23cs925/spam-web-app-pes2ug23cs925:v1  08385f429df9                    541MB         125MB
python:3.10-slim                       f5d029fe3914                    185MB         47.1MB
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$
```

SS14:

```
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker rmi pes2ug23cs925/spam-web-app-pes2ug23cs925:v1
Untagged: pes2ug23cs925/spam-web-app-pes2ug23cs925:v1
Deleted: sha256:08385f429df969c55c690fc3371713ca0d493887618cf965cafd5615872ec82c
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker images
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$
```

IMAGE	ID	DISK USAGE	CONTENT SIZE	EXTRA
hello-world:latest	05813aedc15f	25.9kB	9.52kB	U
python:3.10-slim	f5d029fe3914	185MB	47.1MB	U

 Answer-14.txt

File Edit View H1         

SRN: PES2UG23CS925

Yes. Docker provides the command 'docker image prune -a' to delete all unused Docker images in one go. This command removes all dangling and unreferenced images from the system, freeing disk space.

SS15:

```
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker pull pes2ug23cs925/spam-web-app-pes2ug23cs925:v1
v1: Pulling from pes2ug23cs925/spam-web-app-pes2ug23cs925
cf28112140f8: Pull complete
93a675f93839: Pull complete
4f247b1bc16b: Pull complete
2a7e7d96a849: Pull complete
daf5da1625c5: Pull complete
7785c9a33b69: Pull complete
322dd709c0fe: Download complete
Digest: sha256:08385f429df969c55c690fc3371713ca0d493887618cf965cafd5615872ec82c
Status: Downloaded newer image for pes2ug23cs925/spam-web-app-pes2ug23cs925:v1
docker.io/pes2ug23cs925/spam-web-app-pes2ug23cs925:v1
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$ docker images
aakanksha@Aakanksha:/mnt/c/Users/aakan/sem-6/CC/PES2UG23CS925$
```

IMAGE	ID	DISK USAGE	CONTENT SIZE	EXTRA
hello-world:latest	05813aedc15f	25.9kB	9.52kB	U
pes2ug23cs925/spam-web-app-pes2ug23cs925:v1	08385f429df9	541MB	125MB	
python:3.10-slim	f5d029fe3914	185MB	47.1MB	