

CC LAB 3

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Class: 6 E

SRN: PES2UG23CS298

Screenshots:

SS1:

```
laharish@PES2UG23CS298:~$ export SRN=PES2UG23CS298
laharish@PES2UG23CS298:~$ echo "SRN: $SRN"
SRN: PES2UG23CS298
laharish@PES2UG23CS298:~$ sudo 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/
laharish@PES2UG23CS298:~$
```

SS2:

```
laharish@PES2UG23CS298:~$ sudo docker ps
CONTAINER ID        IMAGE               COMMAND      CREATED     STATUS      PORTS     NAMES
laharish@PES2UG23CS298:~$ sudo docker ps -a
CONTAINER ID        IMAGE               COMMAND      CREATED     STATUS      PORTS     NAMES
ea74c3a7f0ba        hello-world        "/hello"    4 minutes ago   Exited (0) 4 minutes ago
1172044f540d        hello-world        "/hello"    15 minutes ago   Exited (0) 15 minutes ago
laharish@PES2UG23CS298:~$ sudo docker images
IMAGE              ID                  DISK USAGE     CONTENT SIZE    EXTRA
hello-world:latest  05813aedc15f       25.9kB        9.52kB        U
laharish@PES2UG23CS298:~$
```

SS3:

```
laharish@PES2UG23CS298:~$ sudo docker pull python:3.10-slim
3.10-slim: Pulling from library/python
63ebb7511fc1: Pull complete
0c8d55a45c0d: Pull complete
690eaffcf0e9: Pull complete
d0d1977db485: Pull complete
13a7f29dd8f5: Download complete
a4e5ac615dd3: Download complete
Digest: sha256:218027ad8e5a6fb68245ccffcb8bcfa98d9891039bfedd53b1b4666dc48a4bb1
Status: Downloaded newer image for python:3.10-slim
docker.io/library/python:3.10-slim
laharish@PES2UG23CS298:~$ sudo docker images
IMAGE           ID            DISK USAGE   CONTENT SIZE   EXTRA
hello-world:latest 05813aedc15f      25.9kB     9.52kB    U
python:3.10-slim  218027ad8e5a      185MB      47.1MB
laharish@PES2UG23CS298:~$
```

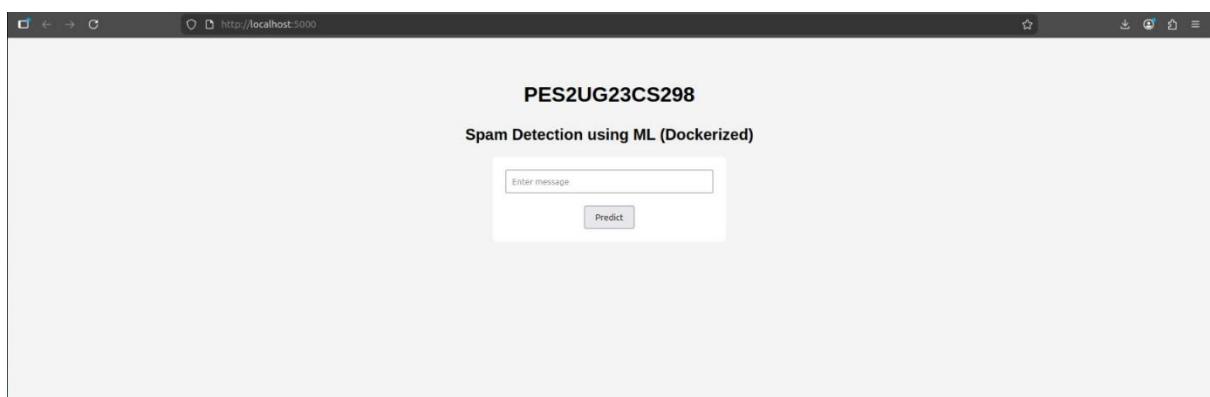
SS4:

```
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker build -t spam-web-app-pes2ug23cs298 .
[+] Building 32.1s (12/12) FINISHED
   => [internal] load build definition from Dockerfile
   => transferring dockerfile: 75B
   => [internal] load metadata for docker.io/library/python:3.10-slim
   => [internal] load .dockerignore
   => transferring context: 2B
=> FROM docker.io/library/python:3.10-slim@sha256:218027ad8e5a6fb68245ccffcb8bcfa98d9891039bfedd53b1b4666dc48a4bb1
=> => resolving docker.io/library/python:3.10-slim@sha256:218027ad8e5a6fb68245ccffcb8bcfa98d9891039bfedd53b1b4666dc48a4bb1
=> [internal] load build context
=> transferring context: 400.35kB
[2/7] WORKDIR /app
[3/7] COPY app.py .
[4/7] COPY spams_classifier_model.pkl .
[5/7] COPY svd_tf_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 sha256:968a72439f77fdb6b386848e9aa82d96a117c6b936dcf04d411add6dc6fc27
=> => exporting config sha256:7ae49e10953299d5a696ba3d3b91051b846e9e377ae1eac2535be15287f8
=> => exporting attestation manifest sha256:748a30d425ccb4ef849e87a63486822d346f108ea778446e9df088d5c8783e2
=> => naming to docker.io/library/spam-web-app-pes2ug23cs298:latest
=> => unpacking to docker.io/library/spam-web-app-pes2ug23cs298:latest
[8/8] SUCCE
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$
```

SS5:

```
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker run -d -p 5000:5000 spam-web-app-pes2ug23cs298
e21cd1f95daf8898062de398f451058df937e6ef8dfa085bf27f7cb0f4aab48
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED            STATUS              PORTS               NAMES
e21cd1f95daf        spam-web-app-pes2ug23cs298   "python app.py"   46 seconds ago   Up 45 seconds   0.0.0.0:5000->5000/tcp, [:]:5000->5000/tcp   hungry_matsunoto
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$
```

SS6:



SS7:

```
laharish@PES2UG23CS298: ~/ml-docker-PES2UG23CS298
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker login

USING WEB-BASED LOGIN

[ Info → To sign in with credentials on the command line, use 'docker login -u <username>' ]

Your one-time device confirmation code is: GNBD-JVCJ
Press ENTER to open your browser or submit your device code here: https://login.docker.com/activate

Waiting for authentication in the browser...

WARNING! Your credentials are stored unencrypted in '/root/.docker/config.json'.
Configure a credential helper to remove this warning. See
https://docs.docker.com/go/credential-store/

Login Succeeded
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$
```

SS8:

```
laharish@PES2UG23CS298: ~/ml-docker-PES2UG23CS298
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker tag spam-web-app-pes2ug23cs298 laharish07/spam-web-app-pes2ug23cs298:v1
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker images

IMAGE          ID          DISK USAGE  CONTENT SIZE  EXTRA
hello-world:latest  05813aedc15f   25.9kB      9.52kB    U
laharish07/spam-web-app-pes2ug23cs298:v1  72ae49e1b955   541MB     125MB    U
python:3.10-slim   218027ad8e5a   185MB      47.1MB    U
spam-web-app-pes2ug23cs298:latest  72ae49e1b955   541MB     125MB    U
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$
```

SS9:

```
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker push laharish07/spam-web-app-pes2ug23cs298:v1
The push refers to repository [docker.io/laharish07/spam-web-app-pes2ug23cs298]
3b9a71c2a265: Pushed
f792d78a09e0: Pushed
5472b5d990bc: Pushed
bb7c00f1ba54: Pushed
690eafffcf0e9: Mounted from library/python
d0d1977db485: Mounted from library/python
0c8d55a45c0d: Mounted from library/python
63ebb7511fc1: Mounted from library/python
628042da84ca: Pushed
2d8f44d03338: Pushed
7838cba45564: Pushed
v1: digest: sha256:72ae49e1b955289da5a69bba3d3b91d51b846e9e377a21ea1c25375be15287f0 size: 856
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$
```

SS10:

The screenshot shows the Docker Hub interface. On the left, there's a sidebar for the user 'laharish07'. The main area is titled 'Repositories' and shows a single repository entry: 'laharish07/spam-web-app-pes2ug23cs298'. The repository details are as follows:

- Name: laharish07/spam-web-app-pes2ug23cs298
- Last Pushed: 3 minutes ago
- Contains: IMAGE
- Visibility: Public
- Scout: Inactive

SS11:

```
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
e21cd1f95daf spam-web-app-pes2ug23cs298 "python app.py" 20 minutes ago Up 20 minutes 0.0.0.0:5000->5000/tcp, [:]:5000->5000/tcp hungry_matsumoto
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker stop e21cd1f95daf
e21cd1f95daf
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$
```

SS12:

```
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
e21cd1f95daf spam-web-app-pes2ug23cs298 "python app.py" 24 minutes ago Exited (137) 2 minutes ago
ea74c3a7f0ba hello-world "/hello" About an hour ago Exited (0) About an hour ago
1172044f540d hello-world "/hello" About an hour ago Exited (0) About an hour ago
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker rm e21cd1f95daf
e21cd1f95daf
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
ea74c3a7f0ba hello-world "/hello" About an hour ago Exited (0) About an hour ago
1172044f540d hello-world "/hello" About an hour ago Exited (0) About an hour ago
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$
```

SS13:

```
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker images
IMAGE ID DISK USAGE CONTENT SIZE EXTRA
hello-world:latest 05813aedc15f 25.9kB 9.52kB U
laharish07/spam-web-app-pes2ug23cs298:v1 72ae49e1b955 541MB 125MB
python:3.10-slim 218027ad8e5a 185MB 47.1MB
spam-web-app-pes2ug23cs298:latest 852f843cd653 541MB 125MB
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker rmi spam-web-app-pes2ug23cs298
Untagged: spam-web-app-pes2ug23cs298:latest
Deleted: sha256:852f843cd653e09daef08c76158e94842ed60e89aef3552cc78dd74b0e43aba7
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker images
IMAGE ID DISK USAGE CONTENT SIZE EXTRA
hello-world:latest 05813aedc15f 25.9kB 9.52kB U
laharish07/spam-web-app-pes2ug23cs298:v1 72ae49e1b955 541MB 125MB
python:3.10-slim 218027ad8e5a 185MB 47.1MB
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$
```

SS14:

```
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker images


| IMAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ID           | DISK USAGE | CONTENT SIZE | EXTRA        |       |                    |              |        |        |   |                  |              |       |        |  |                                                    |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|--------------|--------------|-------|--------------------|--------------|--------|--------|---|------------------|--------------|-------|--------|--|----------------------------------------------------|--|--|--|--|
| hello-world:latest                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 05813aedc15f | 25.9kB     | 9.52kB       | U            |       |                    |              |        |        |   |                  |              |       |        |  |                                                    |  |  |  |  |
| laharish07/spam-web-app-pes2ug23cs298:v1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 72ae49e1b955 | 541MB      | 125MB        |              |       |                    |              |        |        |   |                  |              |       |        |  |                                                    |  |  |  |  |
| python:3.10-slim                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 218027ad8e5a | 185MB      | 47.1MB       |              |       |                    |              |        |        |   |                  |              |       |        |  |                                                    |  |  |  |  |
| laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298\$ sudo docker rmi laharish07/spam-web-app-pes2ug23cs298:v1 Untagged: laharish07/spam-web-app-pes2ug23cs298:v1 Deleted: sha256:72ae49e1b955289da5a69bba3d3b91d51b846e9e377a21ea1c25375be15287f0 laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298\$ sudo docker images <table><thead><tr><th>IMAGE</th><th>ID</th><th>DISK USAGE</th><th>CONTENT SIZE</th><th>EXTRA</th></tr></thead><tbody><tr><td>hello-world:latest</td><td>05813aedc15f</td><td>25.9kB</td><td>9.52kB</td><td>U</td></tr><tr><td>python:3.10-slim</td><td>218027ad8e5a</td><td>185MB</td><td>47.1MB</td><td></td></tr><tr><td>laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298\$</td><td></td><td></td><td></td><td></td></tr></tbody></table> | IMAGE        | ID         | DISK USAGE   | CONTENT SIZE | EXTRA | hello-world:latest | 05813aedc15f | 25.9kB | 9.52kB | U | python:3.10-slim | 218027ad8e5a | 185MB | 47.1MB |  | laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298\$ |  |  |  |  |
| IMAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ID           | DISK USAGE | CONTENT SIZE | EXTRA        |       |                    |              |        |        |   |                  |              |       |        |  |                                                    |  |  |  |  |
| hello-world:latest                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 05813aedc15f | 25.9kB     | 9.52kB       | U            |       |                    |              |        |        |   |                  |              |       |        |  |                                                    |  |  |  |  |
| python:3.10-slim                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 218027ad8e5a | 185MB      | 47.1MB       |              |       |                    |              |        |        |   |                  |              |       |        |  |                                                    |  |  |  |  |
| laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298\$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |            |              |              |       |                    |              |        |        |   |                  |              |       |        |  |                                                    |  |  |  |  |


```

PES2UG23CS298

The command to delete all docker images at once is:

"`docker rmi -f $(docker images -aq)"`"

SS15:

```
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker pull laharish07/spam-web-app-pes2ug23cs298:v1
v1: Pulling from laharish07/spam-web-app-pes2ug23cs298
2d8f44d03338: Pull complete
3b9a71c2a265: Pull complete
5472b5d990bc: Pull complete
bb7c00f1ba54: Pull complete
f792d78a09e0: Pull complete
7838cba45564: Pull complete
628042da84ca: Download complete
Digest: sha256:72ae49e1b955289da5a69bba3d3b91d51b846e9e377a21ea1c25375be15287f0
Status: Downloaded newer image for laharish07/spam-web-app-pes2ug23cs298:v1
docker.io/laharish07/spam-web-app-pes2ug23cs298:v1
laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298$ sudo docker images


| IMAGE                                              | ID           | DISK USAGE | CONTENT SIZE | EXTRA |
|----------------------------------------------------|--------------|------------|--------------|-------|
| hello-world:latest                                 | 05813aedc15f | 25.9kB     | 9.52kB       | U     |
| laharish07/spam-web-app-pes2ug23cs298:v1           | 72ae49e1b955 | 541MB      | 125MB        |       |
| python:3.10-slim                                   | 218027ad8e5a | 185MB      | 47.1MB       |       |
| laharish@PES2UG23CS298:~/ml-docker-PES2UG23CS298\$ |              |            |              |       |


```