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SRN: PES2UG19CS451

Subject: Cloud Computing

Semester: 6

Section: G

Lab 2

Deliverables:

The following screenshots are to be submitted:

• 1a.jpg: Screenshot of running docker hello-world.

```
Microsoft Windows [Version 10.0.19044.1566]
(c) Microsoft Corporation. All rights reserved.

C:\Users\arjun>docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:97a3794f88575512824f3b352bc03cd75e239179eea0fecc38e597b2209f49a
Status: Downloaded newer image for hello-world:latest

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

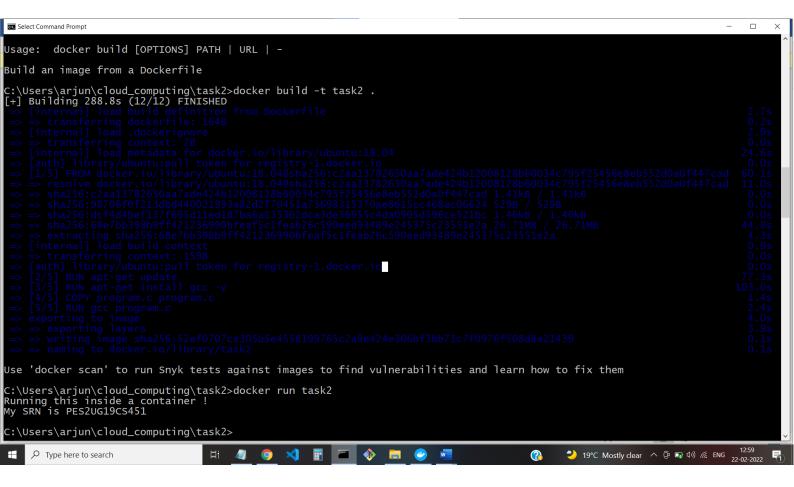
To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
(amd64)
3. The Docker daemon created a new container from that image which runs the
executable that produces the output 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

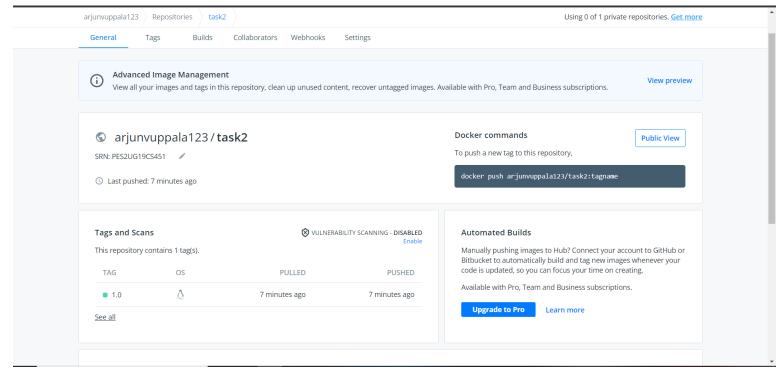
Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

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

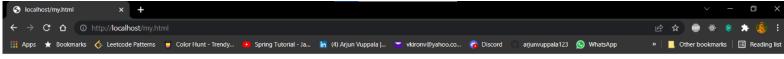
• **2a.jpg:** Screenshot of C Program successfully run inside the container.



• **2b.jpg:** Screenshot of the image pushed to Dockerhub.



• **3a.jpg:** Sample.html showing the web page on the browser.



My SRN is PES2UG19CS451

I am running a nginx container!

• **3b.jpg:** Screenshot of docker container running nginx

```
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in ting mange that Sto: 00100584cfesb03aic 20998bb88cfd77160fc8e7462aie6e554f37515c747c40

is a maining to docker.io/library/pesZugl9cs451_task3

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

c:\Users\argun\cloud_computing\task3>docker run -p 80:80 pesZugl9cs451_task3

/docker-entrypoint.sh: docker-entrypoint.d/ is not empty, will attempt to perform configuration

/docker-entrypoint.sh: Lounching /docker-entrypoint.d/
/docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh

10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf

10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf

/docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh

/docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh

/docker-entrypoint.sh: configuration complete; ready for start up

/docker-en
```

• **3c.jpg:** Screenshot of python application successfully writing and reading from the MongoDB database

• **3d.jpg:** Screenshot showing mongodb being run within the network(docker command has to be clearly highlighted)

```
C:\Users\arjun\cloud_computing\task3>docker run -dp 27017:27017 --network=my-bridge-network --name=mongodb mongo:latest
b9e080784f259b3febf3612a1f7cf1f297f4fce6d9cf652f42c634a94a944603
```

```
C:\Users\arjun\cloud_computing\task3>docker ps -a
COMMAND
COMM
```

• **3e.jpg:** Screenshot showing python file being run within the network and successfully writing and reading from MongoDB(docker command has to be clearly highlighted)

• **4a.jpg:** Screenshot of python-mongodb application running as a docker-compose application(logs of the application)

```
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```

• **4b.jpg:** Screenshot of 3 python application writes and reads from MongoDB after scaling the python application.