CONTAINER ORCHESTRATION AND INFRASTRUCTURE AUTOMATION LAB

NAME- Shubhi Dixit

BATCH-05

SAP ID- 500094571

Dockerfile

- Step 1- Create the directory "images"
- Step 2- Change the current directory to "images"
- Step 3- Create 2 files named "hello.java" and "Dockerfile"

```
Microsoft Windows [Version 10.0.22621.2134]
(c) Microsoft Corporation. All rights reserved.

C:\Users\admin>mkdir images

C:\Users\admin>cd images

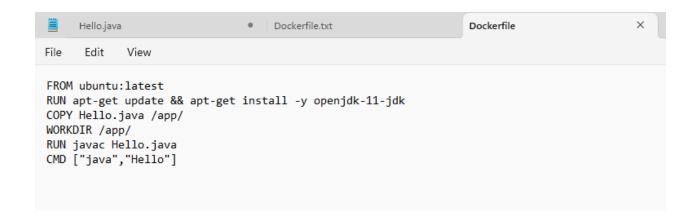
C:\Users\admin\images>notepad Hello.java

C:\Users\admin\images>notepad Dockerfile
```

```
Hello.java • +

File Edit View

class Hello
{
    public static void main( String args[]) {
        System.out.println("Hello World");
    }
}
```



Step 4- Now using build command build an image through dockerfile and give any name to your image and create a container through that image.

```
C:\Users\admin\images>docker build -t mynewimage .
[+] Building 2.1s (10/10) FINISHED

=> [internal] load build definition from Dockerfile
                                                                                                                         docker:default
                                                                                                                                    0.05
=> transferring dockerfile: 196B
=> [internal] load .dockerignore
                                                                                                                                    0.05
                                                                                                                                    0.0s
=> => transferring context: 2B
                                                                                                                                    0.05
=> [internal] load metadata for docker.io/library/ubuntu:latest
=> [internal] load build context
                                                                                                                                    0.05
=> => transferring context: 164B
=> [1/5] FROM docker.io/library/ubuntu:latest
=> CACHED [2/5] RUN apt-get update && apt-get install -y openjdk-11-jdk
=> [3/5] COPY Hello.java /app/
=> [4/5] WORKDIR /app/
 => [5/5] RUN javac Hello.java
 => exporting to image
=> => writing image sha256:39c45d02e19da6f3b4f2c4408ac95a7fcd67ecle6d5377af45f983361d09cb16
=> => naming to docker.io/library/mynewimage
 View summary of image vulnerabilities and recommendations → docker scout quickview
C:\Users\admin\images>docker run -dt --name=shubhi mynewimage
6e94ef1a91161a72c74eb927bcadf55683f017df9090062fabd012d8<u>e</u>9ac40fe
```

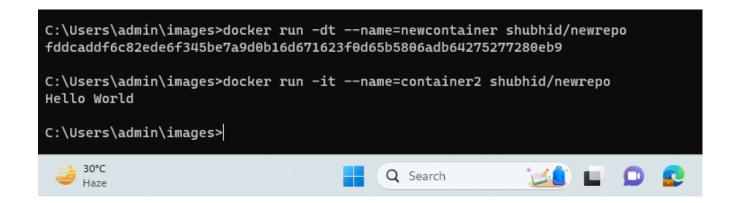
Step 5- Use commit command to create an image of the entire setup(container + image) and then push this image to your account in Docker Hub by creating a private repository and give it a name.

```
C:\Users\admin\images>docker login
Authenticating with existing credentials...
Login Succeeded
Logging in with your password grants your terminal complete access to your account.
For better security, log in with a limited-privilege personal access token. Learn more at https://docs.docker.com/go/access-tokens/
C:\Users\admin\images>docker commit shubhi shubhid/newrepo
sha256:d732f1af5df1d42d6f081e072fad39892b2eeb1137eab59fb10995d06e99acdf
C:\Users\admin\images>docker push shubhid/newrepo
Using default tag: latest
The push refers to repository [docker.io/shubhid/newrepo]
e402efb6ab11: Pushed
8c92fe12e338: Pushed
5f70bf18a086: Pushed
a6efb10f6dbb: Pushed
97ba0ca3f908: Pushed
dc0585a4b8b7: Mounted from library/ubuntu
Patch "https://registry-1.docker.io/v2/shubhid/newrepo/blobs/uploads/cf0a5f97-30cb-4e70-9f00-7ac7fc47f3f7?_state=52BIstcCipyLz4GRUisWzq0_ypdg5znsH1P
NuZLzh-17Ik5hbWUiOiJzaHViaGlkL25ld3JlcG8iLCJVVUlEIjoiY2YwYTVmOTctMzBjYi00ZTcwLTlmMDAtN2FjN2ZjNDdmM2Y3IiwiT2Zmc2V0IjowLCJTdGFydGVkQXQiOiIyMDIzLTA5LTE
zVDE10jE10jUzLjM1NzI4NDM3NFoifQ%3D%3D": net/http: TLS handshake timeout
C:\Users\admin\images>docker push shubhid/newrepo
Using default tag: latest
The push refers to repository [docker.io/shubhid/newrepo]
e402efb6ab11: Layer already exists
8c92fe12e338: Layer already exists
5f70bf18a086: Pushed
a6efb10f6dbb: Layer already exists
```

Step 6- Now pull the image from the created repository

```
Command Prompt
Using default tag: latest
The push refers to repository [docker.io/shubhid/newrepo]
e402efb6ab11: Layer already exists
8c92fe12e338: Layer already exists
5f70bf18a086: Pushed
a6efb10f6dbb: Layer already exists
97ba0ca3f908: Layer already exists
dc0585a4b8b7: Layer already exists
latest: digest: sha256:aaff9b66d2c203300e070aa3a0c0b8314211818affeae73659b37d0f4165c514 size: 1569
C:\Users\admin\images>docker pull shubhid/newrepo
Using default tag: latest
latest: Pulling from shubhid/newrepo
Digest: sha256:aaff9b66d2c203300e070aa3a0c0b8314211818affeae73659b37d0f4165c514
Status: Image is up to date for shubhid/newrepo:latest
docker.io/shubhid/newrepo:latest
```

Step 7- Now create another container in interactive mode(to see the output) from the pulled image and check whether the output is correct or not.



You can also check if the repository has been successfully created on your Docker Hub account.

