UNIVERSITY OF PETROLEUM & ENERGY STUDIES

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ACO LAB

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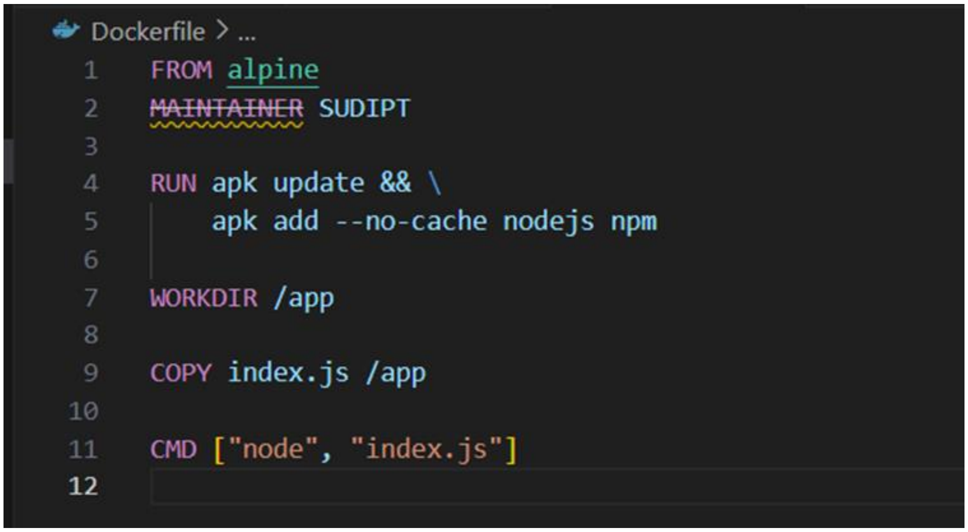
EXPERIMENT-5

AIM : Working with Dockerfile to Build and Push Docker Image

Steps to Complete:

1. Create following Dockerfile

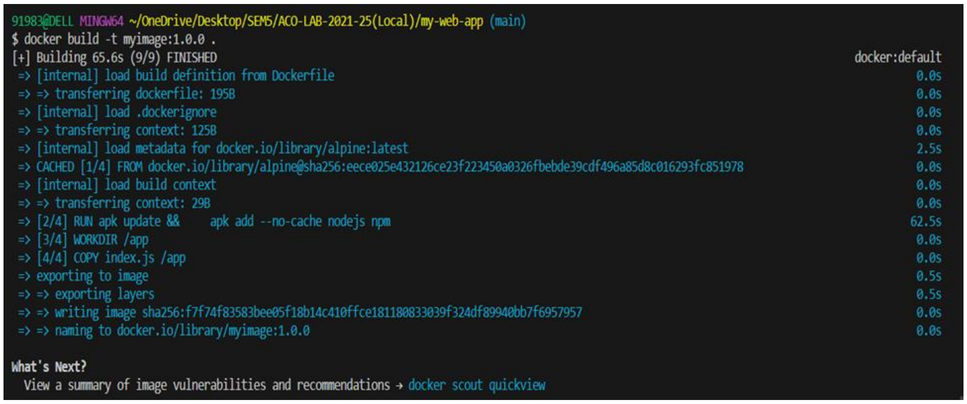
```
FROM alpine

MAINTAINER SUDIPT

RUN apk update

RUN apk add nodejs

RUN mkdir /app

COPY index.js /app

WORKDIR /app

RUN node index.js
```



Dockerfile > ...

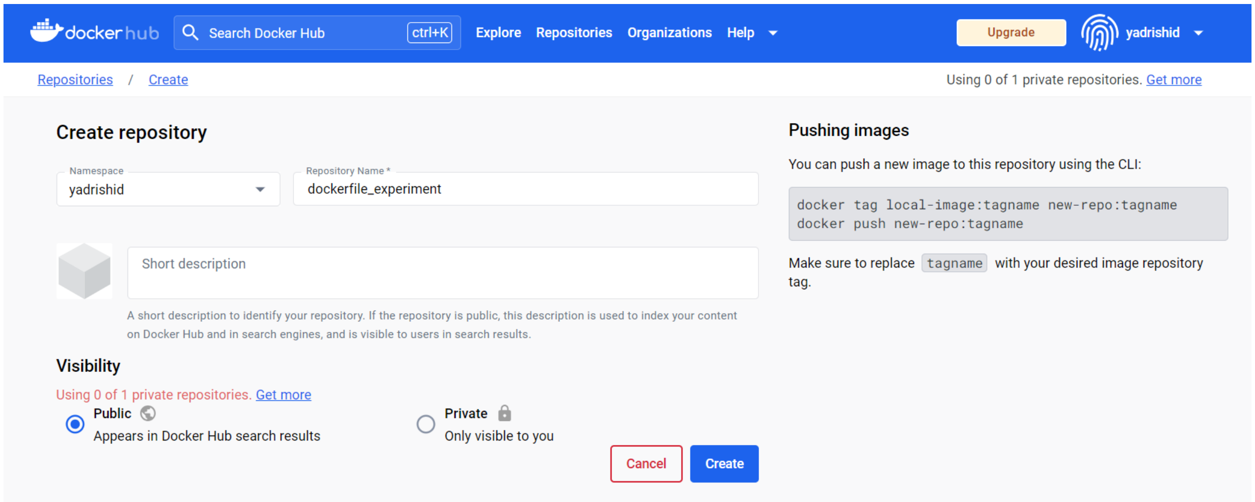
```
FROM alpine
MAINTAINER SUDIPT

RUN apk update && \
    apk add --no-cache nodejs npm

WORKDIR /app

COPY index.js /app

CMD ["node", "index.js"]

```

2. Now we have dockerized the app, we will Build image from Dockerfile.
   “ docker build -t myimage:1.0.0 . ”



```
91983@DELL MINGW64 ~/OneDrive/Desktop/SEM5/ACO-LAB-2021-25(Local)/my-web-app (main)
$ docker build -t myimage:1.0.0 .
[+] Building 65.6s (9/9) FINISHED                                                                     docker:default
 => [internal] load build definition from Dockerfile                                                            0.0s
 => => transferring dockerfile: 195B                                                                            0.0s
 => [internal] load .dockerignore                                                                               0.0s
 => => transferring context: 125B                                                                               0.0s
 => [internal] load metadata for docker.io/library/alpine:latest                                                2.5s
 => CACHED [1/4] FROM docker.io/library/alpine@sha256:eece025e432126ce23f223450a0326fbebde39cdf496a85d8c016293fc851978  0.0s
 => [internal] load build context                                                                               0.0s
 => => transferring context: 29B                                                                                0.0s
 => [2/4] RUN apk update &&     apk add --no-cache nodejs npm                                                  62.5s
 => [3/4] WORKDIR /app                                                                                          0.0s
 => [4/4] COPY index.js /app                                                                                    0.0s
 => exporting to image                                                                                          0.5s
 => => exporting layers                                                                                         0.5s
 => => writing image sha256:f7f74f83583bee05f18b14c410ffce181180833039f324df89940bb7f6957957                    0.0s
 => => naming to docker.io/library/myimage:1.0.0                                                                0.0s

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview
```

3. Create account on Dockerhub and create a repository in it.



Using 0 of 1 private repositories. Get more

Create repository

Namespace: yadrishid

Repository Name *: dockerfile_experiment

Short description

A short description to identify your repository. If the repository is public, this description is used to index your content on Docker Hub and in search engines, and is visible to users in search results.

Visibility

Using 0 of 1 private repositories. Get more

● Public — Appears in Docker Hub search results

○ Private — Only visible to you

Pushing images

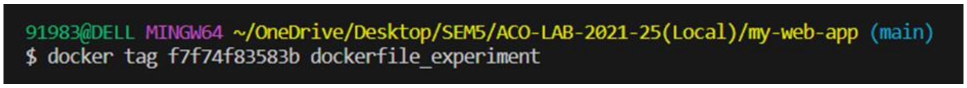
You can push a new image to this repository using the CLI:

```
docker tag local-image:tagname new-repo:tagname
docker push new-repo:tagname
```

Make sure to replace `tagname` with your desired image repository tag.

4. Tag the recently created image using following command.

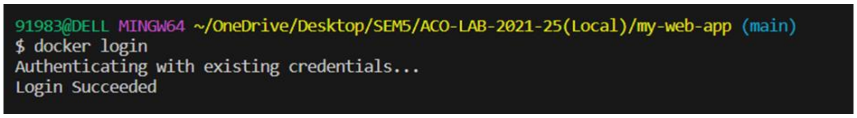
“ docker tag imageID Repositoryname ”



```
91983@DELL MINGW64 ~/OneDrive/Desktop/SEM5/ACO-LAB-2021-25(Local)/my-web-app (main)
$ docker tag f7f74f83583b dockerfile_experiment
```

5. Login to Dockerhub from console using following command.

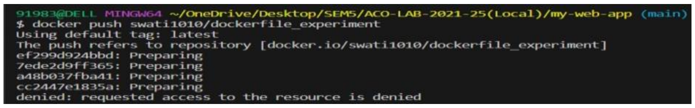
“ docker login ”



```
91983@DELL MINGW64 ~/OneDrive/Desktop/SEM5/ACO-LAB-2021-25(Local)/my-web-app (main)
$ docker login
Authenticating with existing credentials...
Login Succeeded
```

6. Now push the image on Dockerhub using following command.

“ docker push RepositoryName ”



```
91983@DELL MINGW64 ~/OneDrive/Desktop/SEM5/ACO-LAB-2021-25(Local)/my-web-app (main)
$ docker push swati1010/dockerfile_experiment
Using default tag: latest
The push refers to repository [docker.io/swati1010/dockerfile_experiment]
ef299d924bbd: Preparing
7ede2d9ff365: Preparing
a48b037fba41: Preparing
cc2447e1835a: Preparing
denied: requested access to the resource is denied
```