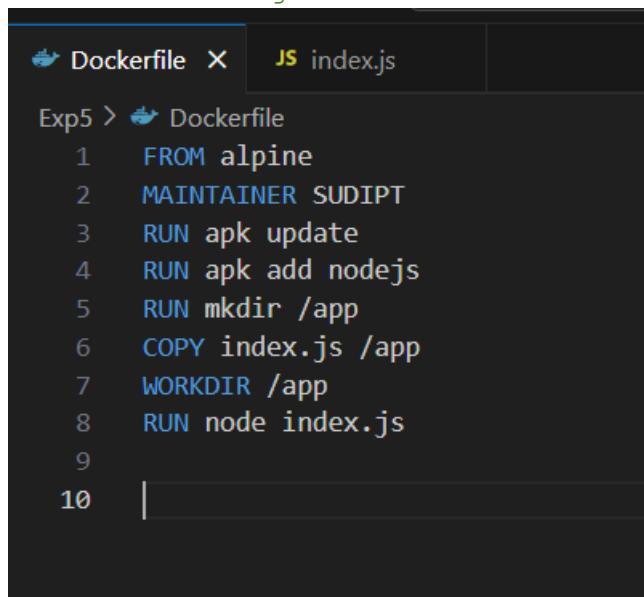# EXPERIMENT 5

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
```

2. Now we have dockerized the app, we will Build image from Dockerfile.

```
docker build -t myimage:0.1 .
```

```
PS C:\Users\manya\OneDrive\Desktop\ACO\Exp5> docker build -t myimage:0.1 .
[+] Building 56.3s (12/12) FINISHED
 => [internal] load .dockerignore
 => => transferring context: 2B
 => [internal] load build definition from Dockerfile
 => => transferring dockerfile: 187B
 => [internal] load metadata for docker.io/library/alpine:latest
 => CACHED [1/7] FROM docker.io/library/alpine
 => [internal] load build context
 => => transferring context: 29B
 => [2/7] RUN apk update
 => [3/7] RUN apk add nodejs
 => [4/7] RUN mkdir /app
 => [5/7] COPY index.js /app
 => [6/7] WORKDIR /app
 => [7/7] RUN node index.js
 => exporting to image
 => => exporting layers
 => => writing image sha256:bf00d84eec77f83b7f61511e41e4ba6d885711eb2f61e463249470bf531d75c2
 => => naming to docker.io/library/myimage:0.1

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.

shikhar2904   Edit profile

Community User   Joined August 11, 2023

Repositories   Starred   Contributed

Displaying 1 to 1 repositories

Create repository

Namespace
shikhar2904 ▾

Repository Name *
aco_exp_5

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

Cancel   Create

4. Tag the recently created image using following command.

```
docker tag imageID Repositoryname
C:\Users\sksum>docker push shikhar2904/aco_exp_5
Using default tag: latest
The push refers to repository [docker.io/shikhar2904/aco_exp_5]
```

5. Login to Dockerhub from console using following command.

```
docker Login
```

```
C:\Users\sksum>docker network disconnect frontend-network redis

C:\Users\sksum>docker login
Authenticating with existing credentials...
Login did not succeed, error: request returned Internal Server Error for API route and version http://%
F%2F.%2Fpipe%2Fdocker_engine/v1.24/auth, check if the server supports the requested API version
Log in with your Docker ID or email address to push and pull images from Docker Hub. If you don't have
 Docker ID, head over to https://hub.docker.com/ to create one.
You can log in with your password or a Personal Access Token (PAT). Using a limited-scope PAT grants be
ter security and is required for organizations using SSO. Learn more at https://docs.docker.com/go/acce
s-tokens/

Username (shikhar2904): _
```

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

```
docker push Repositoryname
```

```
Using default tag: latest
The push refers to repository [docker.io/yatharthdocker/aco_exp5]
2069e460cec1: Pushed
5f70bf18a086: Mounted from katacoda/redis-node-docker-example
862c0697ed01: Pushed
0c83236e05a5: Pushed
9542fe2d9c8b: Pushed
f823c4d1216e: Pushed
9fe9a137fd00: Mounted from library/alpine
latest: digest: sha256:2c710817b3d1e9df73218cc98922c6cb17168c68bf4f472503274b4f321d2599 size: 1777
PS C:\Users\manya\OneDrive\Desktop\ACO\Exp5>
```

Tags

This repository contains 1 tag(s).

Tag	OS	Type	Pulled	Pushed
● latest	🐧	Image	---	3 minutes ago

See all   Go to Advanced Image Management

Repository overview ⓘ

An overview describes what your image does and how to run it. It displays in the public view of your repository

7. Pull and Run the container of your deployed image on docker hub.

```
Docker run -d image_name
```

```
See docker run --help .
PS C:\Users\manya\OneDrive\Desktop\ACO\Exp5> docker run -d myimage:0.1
9ed9a27718a040a1800d3a61662a42fec860982ccee5b7e69bc4ae1a50cfaa7e
PS C:\Users\manya\OneDrive\Desktop\ACO\Exp5>
```