Academic Year: 2024-25 **Semester: V**
Class / Branch: TE IT Subject: DevOPs Lab (DL) **Name : Siddhi Tangsali**
Subject Lab In-charge: Prof. Sujata Oak **Student id : 23104069**

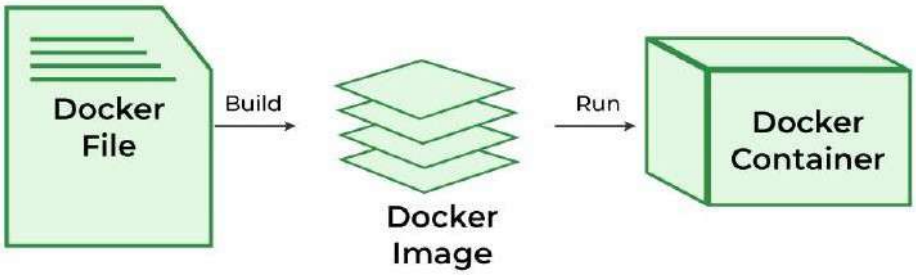
EXPERIMENT NO. 09

Aim: To build an image for a sample web application from a CLI and docker file using various docker file instructions

Theory: The Dockerfile uses DSL (Domain Specific Language) and contains instructions for generating a Docker image. Dockerfile will define the processes to quickly produce an image. While creating your application, you should create a Dockerfile in order since the Docker daemon runs all of the instructions from top to bottom.

An artifact with several layers and a lightweight, compact stand-alone executable package that contains all of the components required to run a piece of software, including the code, a runtime, libraries, environment variables, and configuration files is called a Docker image.

A container is a runtime instance of an image. Containers make development and deployment more efficient since they contain all the dependencies and parameters needed for the application it runs completely isolated from the host environment.



Dockerfile commands/Instructions

1. FROM

- Represents the base image(OS), which is the command that is executed first before any other commands.

Syntax

FROM <ImageName>

2. COPY

- *The copy command is used to copy the file/folders to the image while building the image.*

Syntax:

COPY <Source> <Destination>

3] RUN

- Scripts and commands are run with the RUN instruction. The execution of RUN commands or instructions will take place while you create an image on top of the prior layers (Image).

Syntax

RUN < Command + ARGS>

4] CMD

- *The main purpose of the CMD command is to start the process inside the container and it can be overridden.*

Syntax

CMD [command + args]

Stages of Creating Docker Image from Dockerfile

The following are the stages of creating docker image form Dockerfile:

1. Create a file named Dockerfile.
2. Add instructions in Dockerfile.
3. Build Dockerfile to create an image.
4. Run the image to create a container.

IMPLEMENTATION:

PART I: Containerize an application using docker CLI Commands:

Let's create an nginx webserver, it is a web server platform which helps to host your web applications.

STEP1: Download nginx official image and then containerized your web application in it.

#docker images

```
root@labvm:/home/devasc/Desktop/DOCKER_LAB# docker images
REPOSITORY   TAG       IMAGE ID       CREATED        SIZE
mysql        latest    245a6c909dc0   11 days ago    921MB
nginx        latest    2cd1d97f893f   2 weeks ago    192MB
ubuntu       latest    65ae7a6f3544   2 weeks ago    78.1MB
```

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT# docker container rm $(docker container ls -aq)
e184b46df0a6
e70db86213b7
93de985e318b
64d6a04b1ebd
8320e56c7771
d3a7bf9ebe10
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT# docker container ls -aq
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT# docker container ls -a
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT# docker images
REPOSITORY   TAG       IMAGE ID       CREATED        SIZE
mysql        latest    fe7f726d39a6   2 weeks ago    921MB
nginx        latest    53a18edff809   6 months ago   192MB
ubuntu       latest    a04dc4851cbc   6 months ago   78.1MB
mongo        3.4       f76f959b2a49   5 years ago    431MB
```

docker rmi mysql nginx ubuntu

#docker images

```
devasc@labvm:~/Desktop/sujata-docker$ sudo su
root@labvm:/home/devasc/Desktop/sujata-docker# docker images
REPOSITORY    TAG         IMAGE ID    CREATED    SIZE
```

#docker ps -a

```
root@labvm:/home/devasc/Desktop/sujata-docker# docker ps -a
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
```

#docker pull nginx

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT# docker pull nginx:latest
latest: Pulling from library/nginx
59e22667830b: Pull complete
140da4f89dcb: Pull complete
96e47e70491e: Pull complete
2ef442a3816e: Pull complete
4b1e45a9989f: Pull complete
1d9f51194194: Pull complete
f30ffbee4c54: Pull complete
Digest: sha256:84ec966e61a8c7846f509da7eb081c55c1d568174487289 24a87ab32f12a72fb
Status: Downloaded newer image for nginx:latest
docker.io/library/nginx:latest
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT#
```

#docker images

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT# docker images
REPOSITORY   TAG       IMAGE ID       CREATED       SIZE
nginx        latest    2cd1d97f893f   3 weeks ago   192MB
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT#
```

STEP2: Run the container from nginx image

 # docker run --name webserver1 5ef

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT# docker run --name webserver--siddhi 2cd
/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
/docker-entrypoint.sh: Looking for shell scripts in /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: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
```

In another terminal

#docker ps -a

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit# docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED          STATUS          PORTS     NAMES
2c7ea1e725f2   2cd       "/docker-entrypoint.…"   52 seconds ago   Up 50 seconds   80/tcp    webserver--siddhi
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit#
```

In previous terminal: ctrl+C ie; exit from container

In another terminal

#docker ps -a

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit# docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED          STATUS                      PORTS     NAMES
2c7ea1e725f2   2cd       "/docker-entrypoint.…"   2 minutes ago    Exited (0) 23 seconds ago             webserver--siddhi
```

Remove the container: 1 terminal

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT# docker container rm 2c7
2c7
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT#
```

2 terminal

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit# docker ps -a
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit#
```

In terminal 1:

docker run -it -p 3031:80 --name server1 nginx:latest bash

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT# docker run -it -p 3031:80 --name server-siddhi nginx:latest bash
root@b6f77004ee35:/#
```

In Another Terminal:

#docker ps -a

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit# docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED              STATUS              PORTS                                   NAMES
b6f77004ee35   nginx:latest   "/docker-entrypoint.…"   About a minute ago   Up About a minute   0.0.0.0:3031->80/tcp, :::3031->80/tcp   server-siddhi
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit#
```

Lets create a static website inside container. I need to go to the location where my index.html file is:

cd /usr/share/nginx/html/

```
root@b6f77004ee35:/# cd /usr/share/nginx/html/
root@b6f77004ee35:/usr/share/nginx/html# ls
50x.html  index.html
```

root@0b847b3b176c:/usr/share/nginx/html#ls


```
root@b6f77004ee35:/# cd /usr/share/nginx/html/
root@b6f77004ee35:/usr/share/nginx/html# ls
50x.html  index.html
```


Rename the default index.html to index.html_backup

root@0b847b3b176c:/usr/share/nginx/html#

```
root@b6f77004ee35:/usr/share/nginx/html# mv index.html index.html_backup
root@b6f77004ee35:/usr/share/nginx/html# nano index.html
bash: nano: command not found
root@b6f77004ee35:/usr/share/nginx/html# apt insatll nano
E: Invalid operation insatll
```

#nano index.html

```
root@0b847b3b176c:/usr/share/nginx/html# nano index.html
```

Nano not found: Because the container that I am running inside the shell says that nano application is not available inside the container. So first install nano: apt install nano

```
root@0b847b3b176c:/usr/share/nginx/html# nano index.html
bash: nano: command not found
```

```
root@0b847b3b176c:/usr/share/nginx/html# apt install nano
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Package nano is not available, but is referred to by another package.
This may mean that the package is missing, has been obsoleted, or
is only available from another source

E: Package 'nano' has no installation candidate
```

root@0b847b3b176c:/usr/share/nginx/html# apt update

```
root@b6f77004ee35:/usr/share/nginx/html# apt update
Get:1 http://deb.debian.org/debian bookworm InRelease [151 kB]
Get:2 http://deb.debian.org/debian bookworm-updates InRelease [55.4 kB]
Get:3 http://deb.debian.org/debian-security bookworm-security InRelease [48.0 kB]
Get:4 http://deb.debian.org/debian bookworm/main amd64 Packages [8793 kB]
Get:5 http://deb.debian.org/debian bookworm-updates/main amd64 Packages [6916 B]
Get:6 http://deb.debian.org/debian-security bookworm-security/main amd64 Packages [272 k
Fetched 9327 kB in 2s (5019 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
2 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@b6f77004ee35:/usr/share/nginx/html# apt install nano
```

#apt install nano

```
root@0b847b3b176c:/usr/share/nginx/html# apt install nano
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libgpm2 libncursesw6
Suggested packages:
  gpm hunspell
```

```
root@0b847b3b176c:/usr/share/nginx/html# nano index.html
```

```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1">
<title> Login Page </title>
<style>
Body {
  font-family: Calibri, Helvetica, sans-serif;
  background-color: pink;
}
button {
       background-color: #4CAF50;
       width: 100%;
        color: orange;
        padding: 15px;
        margin: 10px 0px;
        border: none;
        cursor: pointer;
         }
 form {
        border: 3px solid #f1f1f1;
```

```
  }
input[type=text], input[type=password] {
```

```
        width: 100%;
        margin: 8px 0;
        padding: 12px 20px;
        display: inline-block;
        border: 2px solid green;
        box-sizing: border-box;
    }
 button:hover {
        opacity: 0.7;
    }
  .cancelbtn {
        width: auto;
        padding: 10px 18px;
        margin: 10px 5px;
    }


 .container {
        padding: 25px;
        background-color: lightblue;
    }
</style>
</head>
<body>
    <center> <h1> <b>Student Login Form Designed by Sujata Oak</b> </h1> </center>
    <form>
        <div class="container">
            <label>Username : </label>
            <input type="text" placeholder="Enter Username" name="username" required>
            <label>Password : </label>
            <input type="password" placeholder="Enter Password" name="password" required>
            <button type="submit">Login</button>
            <input type="checkbox" checked="checked"> Remember me
            <button type="button" class="cancelbtn"> Cancel</button>
            Forgot <a href="#"> password? </a>
        </div>
    </form>
</body>
</html>
```

To check nginx service status:

```
root@b6f77004ee35:/# service nginx status
nginx is not running ... failed!
```

#service nginx start

```
root@b6f77004ee35:/# service nginx start
2025/08/06 05:38:23 [notice] 22#22: using the "epoll" event method
2025/08/06 05:38:23 [notice] 22#22: nginx/1.29.0
2025/08/06 05:38:23 [notice] 22#22: built by gcc 12.2.0 (Debian 12.2.0-14+deb12u1)
2025/08/06 05:38:23 [notice] 22#22: OS: Linux 6.2.0-26-generic
2025/08/06 05:38:23 [notice] 22#22: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2025/08/06 05:38:23 [notice] 23#23: start worker processes
2025/08/06 05:38:23 [notice] 23#23: start worker process 24
2025/08/06 05:38:23 [notice] 23#23: start worker process 25
2025/08/06 05:38:23 [notice] 23#23: start worker process 26
2025/08/06 05:38:23 [notice] 23#23: start worker process 27
2025/08/06 05:38:23 [notice] 23#23: start worker process 28
2025/08/06 05:38:23 [notice] 23#23: start worker process 29
2025/08/06 05:38:23 [notice] 23#23: start worker process 30
```

STEP 3:

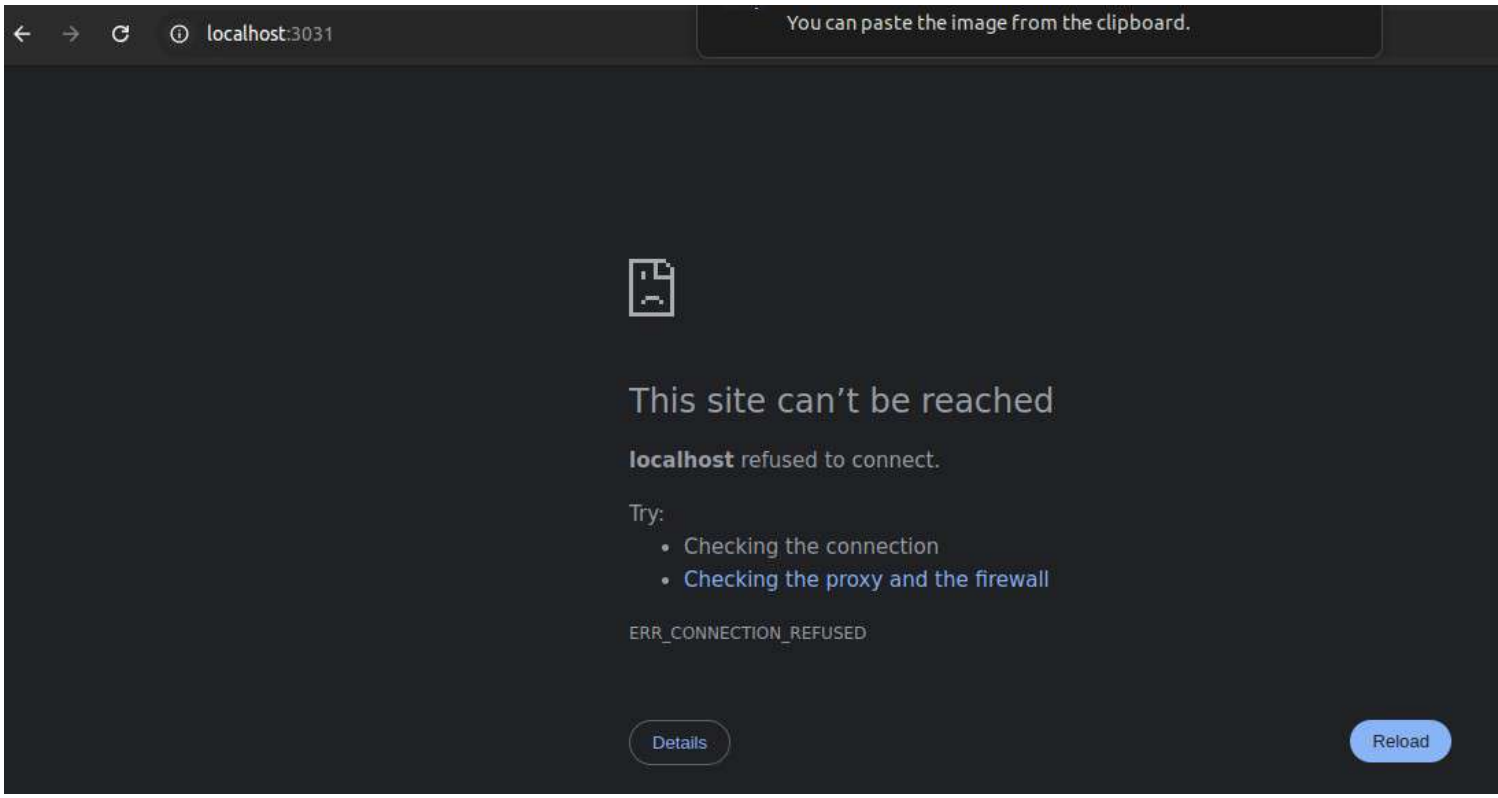
GOTO BROWSER: localhost:3031

To See the logs on first terminal:

```
172.17.0.1 - - [06/Aug/2025:05:38:28 +0000] "GET / HTTP/1.1" 200 615 "-" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/132.0.0.0 Safari
/537.36" "-"
2025/08/06 05:38:28 [error] 24#24: *1 open() "/usr/share/nginx/html/favicon.ico" failed (2: No such file or directory), client: 172.17.0.1, server: localhost, request:
"GET /favicon.ico HTTP/1.1", host: "localhost:3031", referrer: "http://localhost:3031/"
172.17.0.1 - - [06/Aug/2025:05:38:28 +0000] "GET /favicon.ico HTTP/1.1" 404 555 "http://localhost:3031/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, lik
e Gecko) Chrome/132.0.0.0 Safari/537.36" "-"
```

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit# docker stop b6f77004ee35
b6f77004ee35
```

Goto browser Refresh page . Your Container is stopped now

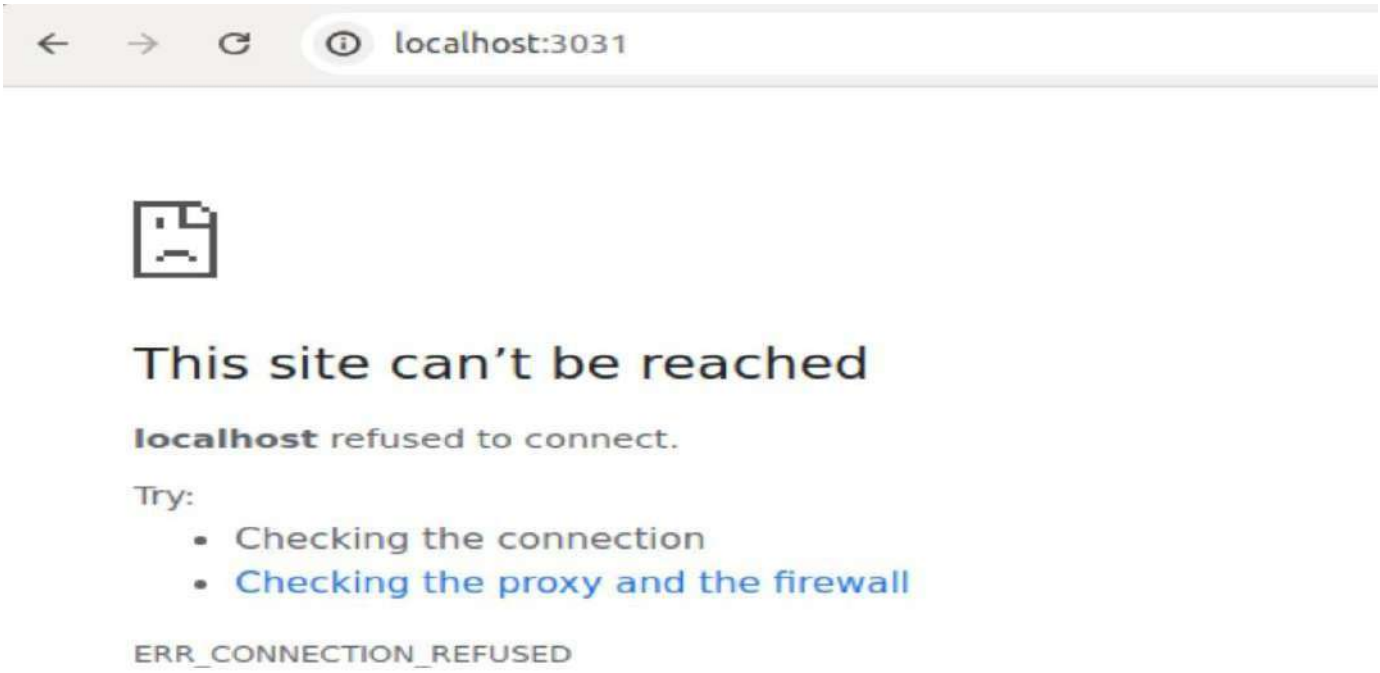



```
root@labvm:/home/devasc/Desktop/sujata-docker# docker start 0b8
0b8
```

Goto browser Refresh page . Your Container is not started

```
root@labvm:/home/devasc/Desktop/sujata-docker# docker restart 0b8
0b8
```

Goto browser Refresh page . Your Container is not restarted



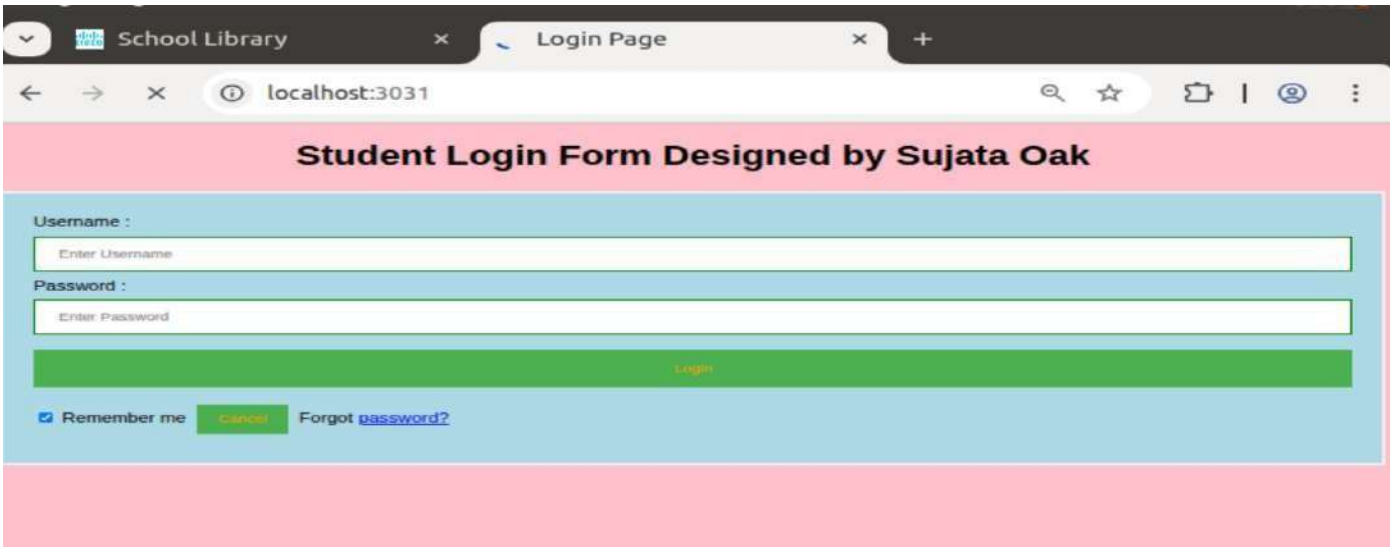
docker exec 0b8 service nginx start

```
root@labvm:/home/devasc/Desktop/sujata-docker# docker exec 0b8 service nginx sta
rt
2025/08/02 19:29:29 [notice] 18#18: using the "epoll" event method
2025/08/02 19:29:29 [notice] 18#18: nginx/1.29.0
2025/08/02 19:29:29 [notice] 18#18: built by gcc 12.2.0 (Debian 12.2.0-14+deb12u
1)
2025/08/02 19:29:29 [notice] 18#18: OS: Linux 5.4.0-37-generic
2025/08/02 19:29:29 [notice] 18#18: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2025/08/02 19:29:29 [notice] 19#19: start worker processes
2025/08/02 19:29:29 [notice] 19#19: start worker process 20
2025/08/02 19:29:29 [notice] 19#19: start worker process 21
```

Goto Browser and refresh it:

#docker pause 0b8

```
root@labvm:/home/devasc/Desktop/sujata-docker# docker pause 0b8
0b8
```



#docker unpause 0b8

```
root@labvm:/home/devasc/Desktop/sujata-docker# docker unpause 0b8
0b8
```

Firstly stop the container:

```
root@labvm:/home/devasc/Desktop/sujata-docker# docker stop 0b8
0b8
```

Then, Remove the Container

```
root@labvm:/home/devasc/Desktop/sujata-docker# docker container rm 0b8
0b8
```

To Verify container is removed or not:

```
root@labvm:/home/devasc/Desktop/sujata-docker# docker ps -a
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
```

PART II: DOCKERFILE

Creating a Docker Image for your Application:

This is the recommended workflow for creating your own Docker image for your application:

1. Write a Dockerfile for your application.
2. Build the image with docker build command.
3. Host your Docker image on a registry.
4. Pull and run the image on the target machine.

Docker builds images automatically by reading the instructions from a Dockerfile. It is a text file that contains all commands needed to build a given image.

STEP 1: # git clone https://github.com/sujataoak799/nginx-dockerfile.git

```
root@labvm:/home/devasc/Desktop/sujata-docker# git clone https://github.com/sujataoak79
9/nginx-dockerfile.git
Cloning into 'nginx-dockerfile'...
remote: Enumerating objects: 8, done.
remote: Counting objects: 100% (8/8), done.
remote: Compressing objects: 100% (6/6), done.
remote: Total 8 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (8/8), 2.63 KiB | 674.00 KiB/s, done.
```

```
root@labvm:/home/devasc/Desktop/sujata-docker# ls
nginx-dockerfile
```

```
root@labvm:/home/devasc/Desktop/sujata-docker# cd nginx-dockerfile/
root@labvm:/home/devasc/Desktop/sujata-docker/nginx-dockerfile# ls
Dockerfile  index.html  README.md  style.css
```

Step 2:

```
root@labvm:/home/devasc/Desktop/sujata-docker/nginx-dockerfile# nano Dockerfile
```

```
  GNU nano 4.8
FROM ubuntu
LABEL author="Sujata Oak"
RUN apt-get update
RUN apt-get install nginx -y
COPY . /var/www/html/
EXPOSE 80
CMD ["nginx","-g","daemon off;"]
```

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx# git clone https://github.com/sujataoak799/nginx-dockerfile.git
Cloning into 'nginx-dockerfile'...
remote: Enumerating objects: 8, done.
remote: Counting objects: 100% (8/8), done.
remote: Compressing objects: 100% (6/6), done.
remote: Total 8 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (8/8), done.
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx# cd nginx-dockerfile/
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# ls
Dockerfile  index.html  README.md  style.css
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# nano Dockerfile
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker build -t siddhidocker2025/website25.
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
            Install the buildx component to build images with BuildKit:
            https://docs.docker.com/go/buildx/

invalid argument "siddhidocker2025/website25." for "-t, --tag" flag: invalid reference format
See 'docker build --help'.
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker build -t siddhidocker2025/website25 .
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
            Install the buildx component to build images with BuildKit:
```

#docker build -t sujatadocker2025/websitetest25 .

```
root@labvm:/home/devasc/Desktop/sujata-docker/nginx-dockerfile# docker build -t sujat
ocker2025/websitetest25 .
[+] Building 24.9s (10/10) FINISHED                                    docker:defaul
 => [internal] load build definition from Dockerfile                              0.0
 => => transferring dockerfile: 190B                                              0.0
 => [internal] load metadata for docker.io/library/ubuntu:latest                  4.2
 => [auth] library/ubuntu:pull token for registry-1.docker.io                     0.0
 => [internal] load .dockerignore                                                 0.1
 => => transferring context: 2B                                                   0.0
 => [1/4] FROM docker.io/library/ubuntu:latest@sha256:a08e551cb33850e4740772b382  6.1
 => => resolve docker.io/library/ubuntu:latest@sha256:a08e551cb33850e4740772b382   0.1
 => => sha256:a08e551cb33850e4740772b38217fc1796a66da2506d312abe 6.69kB / 6.69kB  0.0
 => => sha256:4f1db91d9560cf107b5832c0761364ec64f46777aa4ec637cca300 424B / 424B  0.0
 => => sha256:65ae7a6f3544bd2d2b6d19b13bfc64752d776bc92c510f8741 2.30kB / 2.30kB  0.0
 => => sha256:32f112e3802cadcab3543160f4d2aa607b3cc1c62140d57b 29.72MB / 29.72MB  3.0
 => => extracting sha256:32f112e3802cadcab3543160f4d2aa607b3cc1c62140d57b4f54413  2.2
 => [internal] load build context                                                 0.1
 => => transferring context: 28.65kB                                              0.0
 => [2/4] RUN apt-get update                                                      8.2
 => [3/4] RUN apt-get install nginx -y                                            5.0
```

 # docker images

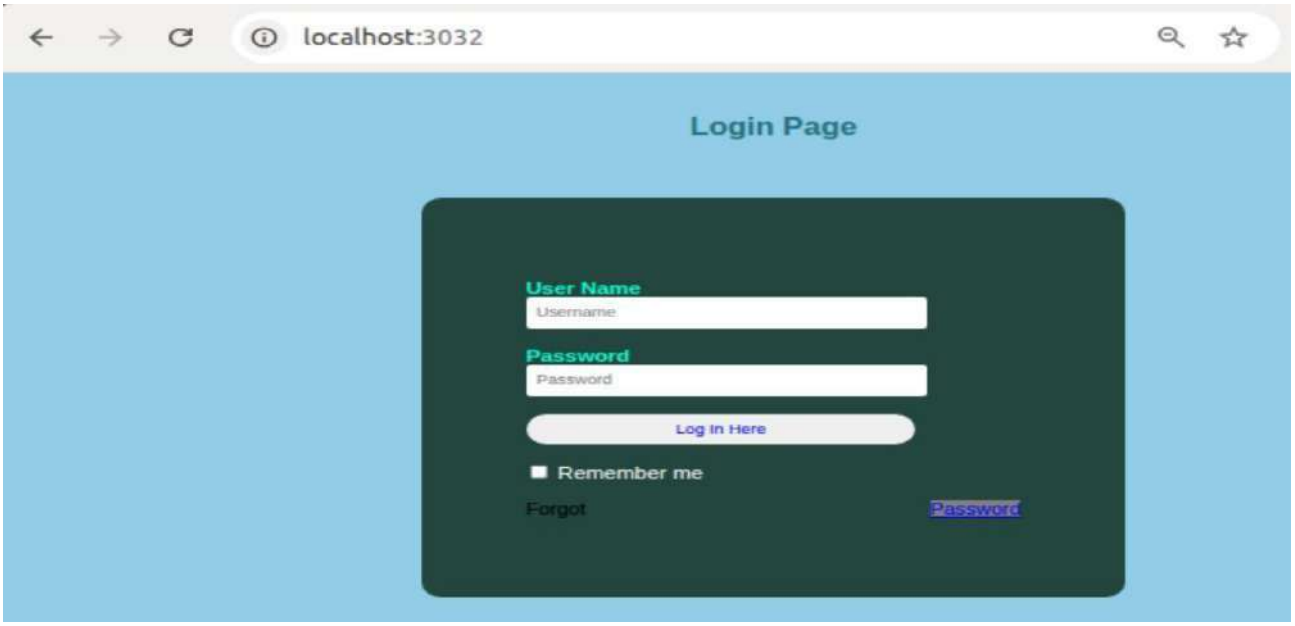
```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker images
REPOSITORY                    TAG       IMAGE ID       CREATED          SIZE
siddhidocker2025/website25    latest    2a5818839b03   13 seconds ago   136MB
nginx                         latest    2cd1d97f893f   3 weeks ago      192MB
ubuntu                        latest    65ae7a6f3544   3 weeks ago      78.1MB
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile#
```

Step 3: Run the container now:

docker run -d -p 3032:80 --name sujata_webcontainer b4b

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED          STATUS          PORTS                                   NAMES
855346cf2237   2a5       "nginx -g 'daemon of…"   51 seconds ago   Up 49 seconds   0.0.0.0:3032->80/tcp, :::3032->80/tcp   siddhi_webcontainer
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile#
```

Step 4: Goto Browser: localhost:3032



STEP 5: How to push this image to your dockerhub :

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker images
REPOSITORY                  TAG       IMAGE ID       CREATED         SIZE
siddhidocker2025/website25  latest    2a5818839b03   5 minutes ago   136MB
nginx                       latest    2cd1d97f893f   3 weeks ago     192MB
ubuntu                      latest    65ae7a6f3544   3 weeks ago     78.1MB
```

 # docker push sujatadocker2025/websitetest25

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker push siddhidocker2025/website25
Using default tag: latest
The push refers to repository [docker.io/siddhidocker2025/website25]
137f548d4f85: Preparing
d68f9ee8d24c: Preparing
1bbbbc1bb55d: Preparing
107cbdaeec04: Preparing
denied: requested access to the resource is denied
```

 # docker tag b4b 18061977/apsitsujatacontainer25:v1

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker images
REPOSITORY                          TAG       IMAGE ID       CREATED         SIZE
siddhidocker2025/website25          latest    2a5818839b03   7 minutes ago   136MB
itsSiddheee/apsitsiddhicontainer25  v1        2a5818839b03   7 minutes ago   136MB
nginx                               latest    2cd1d97f893f   3 weeks ago     192MB
ubuntu                              latest    65ae7a6f3544   3 weeks ago     78.1MB
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile#
```

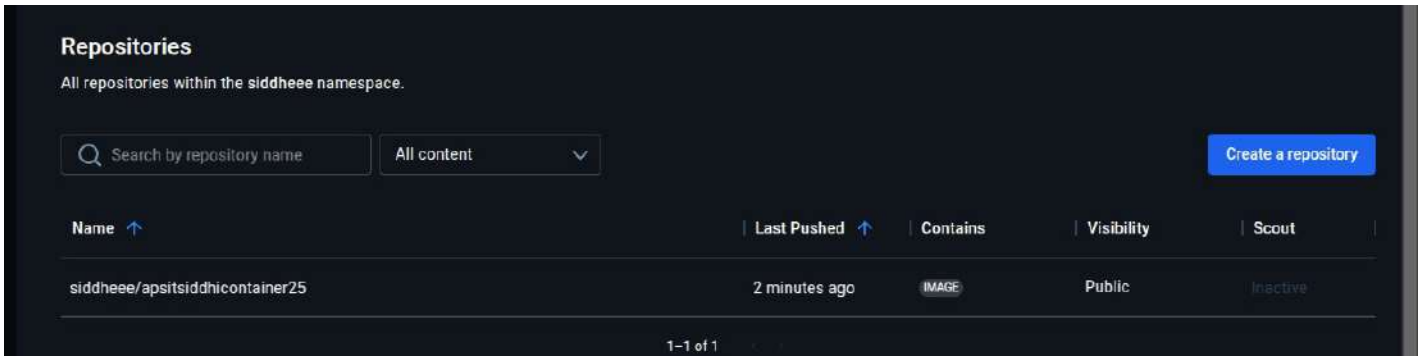
```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker login
Authenticating with existing credentials...
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
```

 # docker push 18061977/apsitsujatacontainer25:v1

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker push siddheee/apsitsiddhicontainer25:v1
The push refers to repository [docker.io/siddheee/apsitsiddhicontainer25]
137f548d4f85: Pushed
d68f9ee8d24c: Pushed
1bbbbc1bb55d: Pushed
107cbdaeec04: Pushed
v1: digest: sha256:f6b8240fbae64dafeac1203276bc0404a6968d6ff04de6f06bef39ba43fe1a2c size: 1161
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile#
```

```
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker tag 2a5 siddheee/apsitsiddhicontainer25:v1
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker images
REPOSITORY                          TAG       IMAGE ID       CREATED          SIZE
siddhidocker2025/website25          latest    2a5818839b03   17 minutes ago   136MB
itsSiddheee/apsitsiddhicontainer25  v1        2a5818839b03   17 minutes ago   136MB
2a5818839b03/apsitsiddhicontainer25 v1        2a5818839b03   17 minutes ago   136MB
siddheee/apsitsiddhicontainer25     v1        2a5818839b03   17 minutes ago   136MB
nginx                               latest    2cd1d97f893f   3 weeks ago      192MB
ubuntu                              latest    65ae7a6f3544   3 weeks ago      78.1MB
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker tag 2a5 siddheee/apsitsiddhicontainer25:v1
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker push 2a5818839b03/apsitsiddhicontainer25:v1
The push refers to repository [docker.io/2a5818839b03/apsitsiddhicontainer25]
137f548d4f85: Preparing
d68f9ee8d24c: Preparing
1bbbbc1bb55d: Preparing
107cbdaeec04: Preparing
denied: requested access to the resource is denied
root@apsit-HP-ProDesk-600-G4-PCI-MT:/home/apsit/Documents/git-SiddhiT/docker-nginx/nginx-dockerfile# docker push siddheee/apsitsiddhicontainer25:v1
The push refers to repository [docker.io/siddheee/apsitsiddhicontainer25]
137f548d4f85: Pushed
d68f9ee8d24c: Pushed
1bbbbc1bb55d: Pushed
107cbdaeec04: Pushed
v1: digest: sha256:f6b8240fbae64dafeac1203276bc0404a6968d6ff04de6f06bef39ba43fe1a2c size: 1161
```

Goto Docker hub page and refresh it:



Conclusion: In the experiment, we used various docker commands to pull images that were already built, also we created our own images by using docker file instructions for a sample web application and atlast we have pushed the image to docker hub account for others to use the repository.