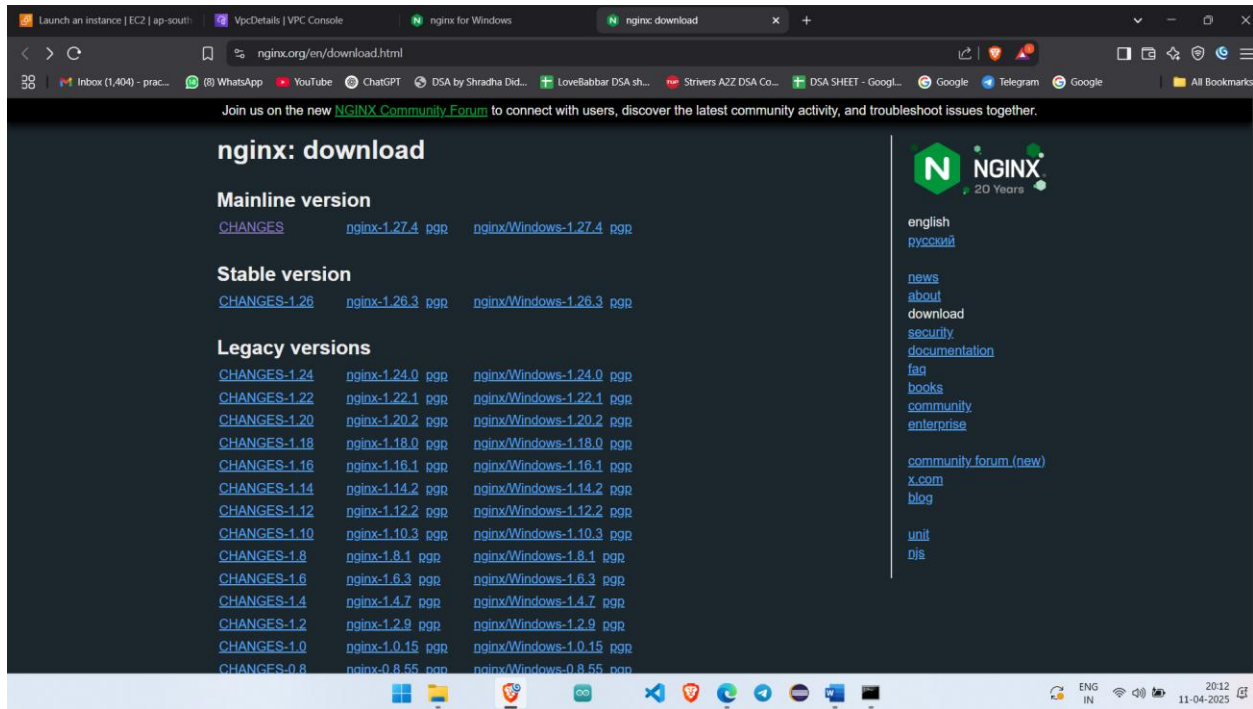


## Assignment 9

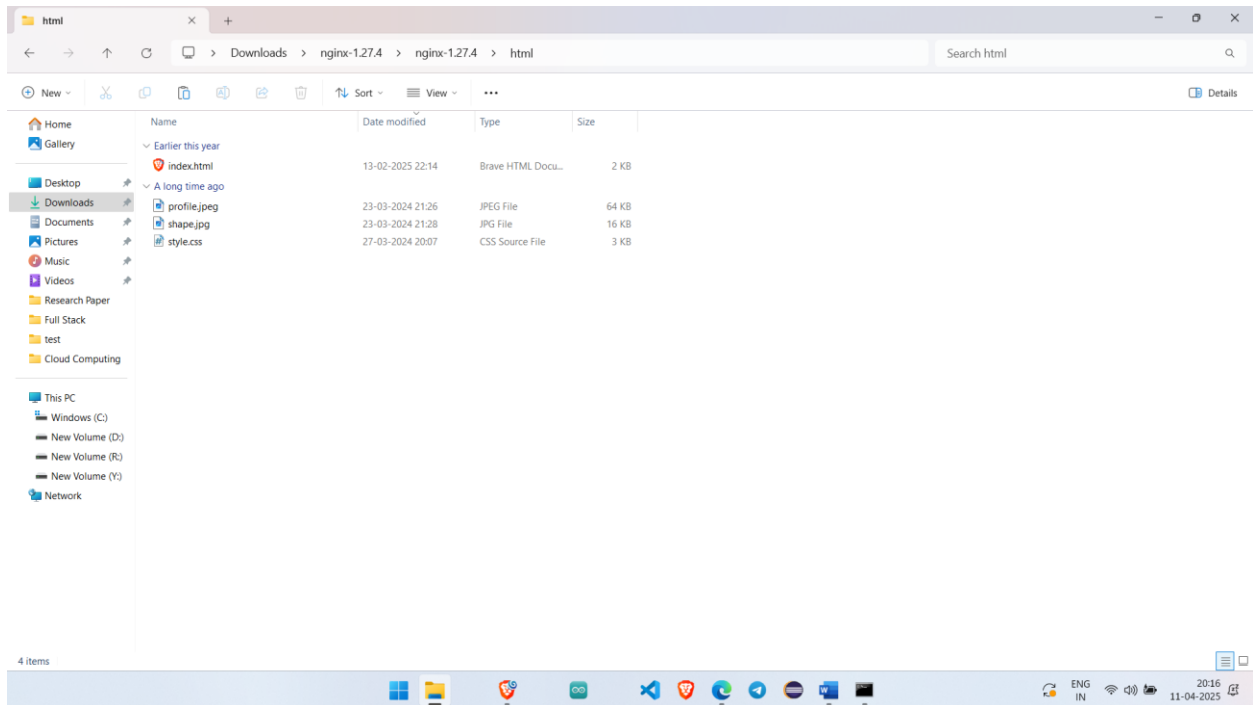
**Title:** Deploy static website using Dockers

### Implementation :

1. Download and load nginx



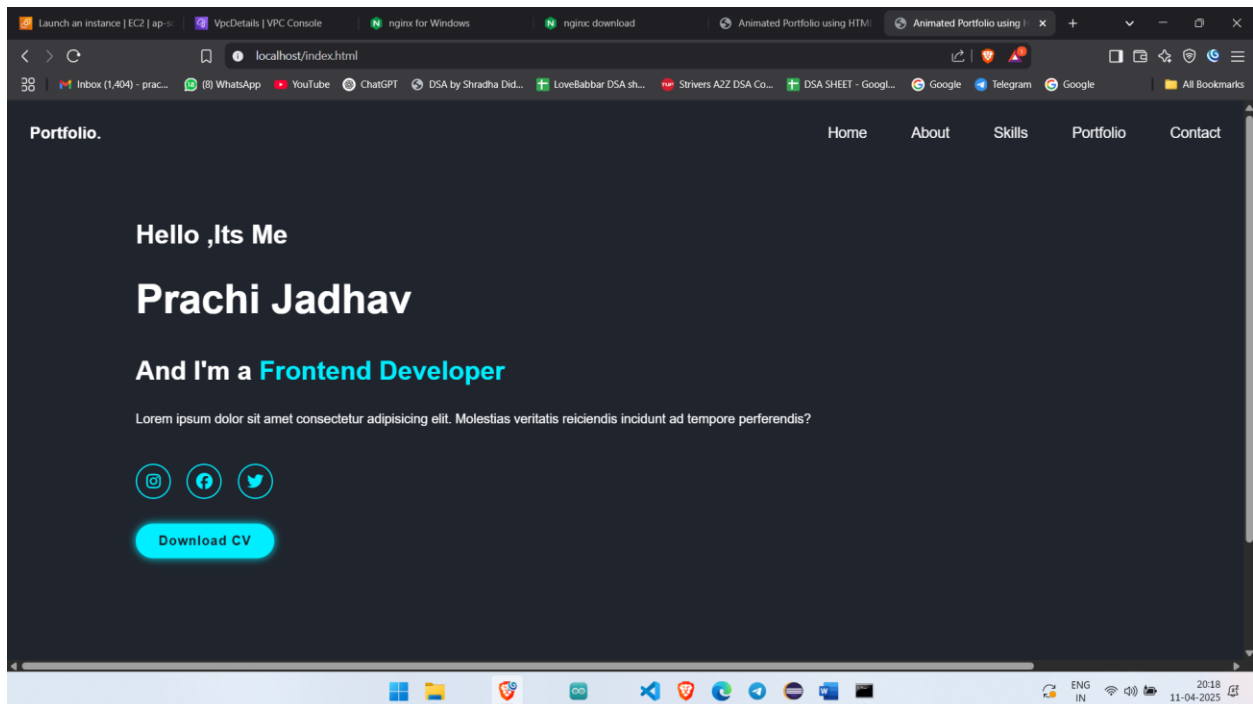
2. Put the sample website in the html folder of nginx



Open local host



Website will be visible on nginx



### 3. Install Docker and check vision

```
Command Prompt

Microsoft Windows [Version 10.0.26100.2894]
(c) Microsoft Corporation. All rights reserved.

C:\Users\prach>docker -v
Docker version 28.0.4, build b8034c0
```

Check info:

```
Command Prompt

C:\Users\prach>docker info
Client:
Version: 28.0.4
Context: desktop-linux
Debug Mode: false
Plugins:
ai: Docker AI Agent - Ask Gordon (Docker Inc.)
  Version: v1.1.3
  Path: C:\Program Files\Docker\cli-plugins\docker-ai.exe
buildx: Docker Buildx (Docker Inc.)
  Version: v0.22.0-desktop.1
  Path: C:\Program Files\Docker\cli-plugins\docker-buildx.exe
cloud: Docker Cloud (Docker Inc.)
  Version: 0.2.20
  Path: C:\Program Files\Docker\cli-plugins\docker-cloud.exe
compose: Docker Compose (Docker Inc.)
  Version: v2.34.0-desktop.1
  Path: C:\Program Files\Docker\cli-plugins\docker-compose.exe
debug: Get a shell into any image or container (Docker Inc.)
  Version: 0.0.38
  Path: C:\Program Files\Docker\cli-plugins\docker-debug.exe
desktop: Docker Desktop commands (Beta) (Docker Inc.)
  Version: v0.1.6
  Path: C:\Program Files\Docker\cli-plugins\docker-desktop.exe
dev: Docker Dev Environments (Docker Inc.)
  Version: v0.1.2
  Path: C:\Program Files\Docker\cli-plugins\docker-dev.exe
extension: Manages Docker extensions (Docker Inc.)
  Version: v0.2.27
  Path: C:\Program Files\Docker\cli-plugins\docker-extension.exe
init: Creates Docker-related starter files for your project (Docker Inc.)
  Version: v1.4.0
  Path: C:\Program Files\Docker\cli-plugins\docker-init.exe
sbom: View the packaged-based Software Bill Of Materials (SBOM) for an image (Anchore Inc.)
  Version: 0.6.0
  Path: C:\Program Files\Docker\cli-plugins\docker-sbom.exe
scout: Docker Scout (Docker Inc.)
  Version: v1.17.0
  Path: C:\Program Files\Docker\cli-plugins\docker-scout.exe
Server:
Containers: 1
  Running: 0
  Paused: 0
  Stopped: 1
Images: 1
Server Version: 28.0.4
Storage Driver: overlays
```

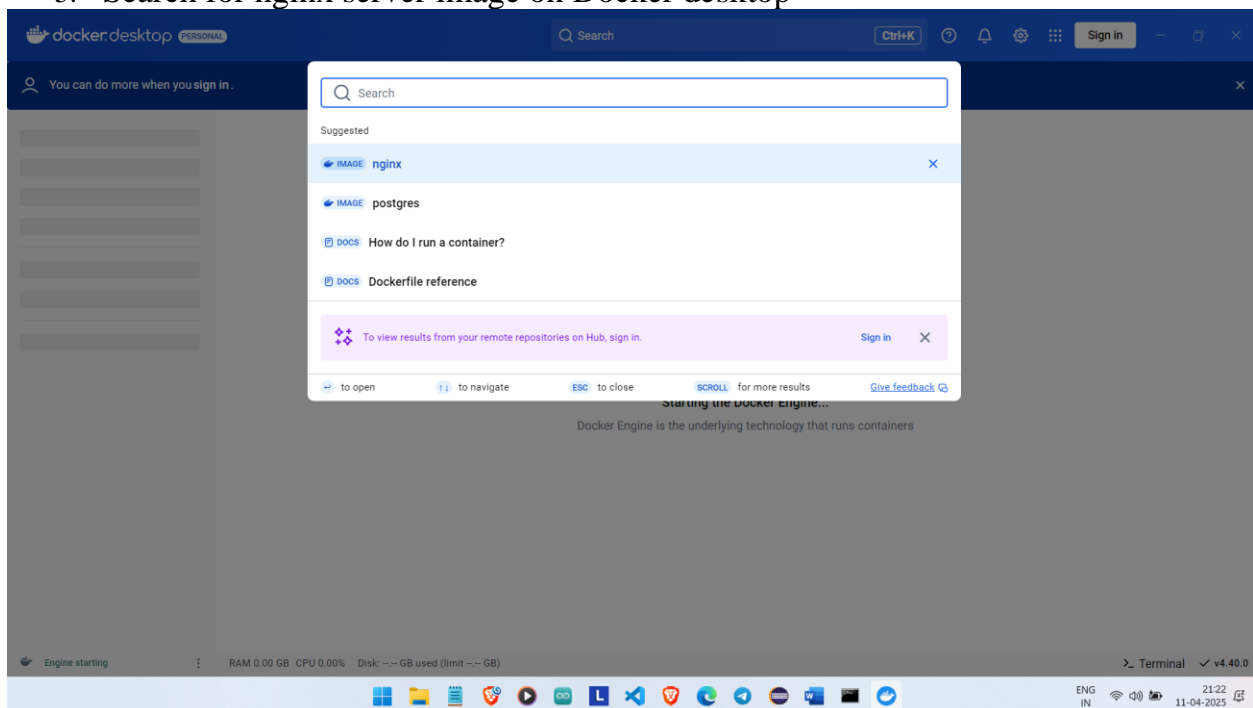
```
Command Prompt
scout: Docker Scout (Docker Inc.)
Version: v1.17.0
Path: C:\Program Files\Docker\cli-plugins\docker-scout.exe

Server:
Containers: 1
Running: 0
Paused: 0
Stopped: 1
Images: 1
Server Version: 28.0.4
Storage Driver: overlayfs
driver-type: io.containerd.snapshotter.v1
Logging Driver: json-file
Cgroup Driver: cgroupfs
Cgroup Version: 1
Plugins:
Volume: local
Network: bridge host ipvlan macvlan null overlay
log: awslogs fluentd gcplogs gelf journald json-file local splunk syslog
CDI spec directories:
/etc/cdi
/var/run/cdi
Swarm: inactive
Runtimes: io.containerd.runc.v2 nvidia runc
Default Runtime: runc
Init Binary: docker-init
containerd version: 753481ec61c7c8955a23d6ff7bc8e4daed455734
runc version: v1.2.5-0-g59923ef
init version: de40ad0
Security Options:
seccomp
Profile: unconfined
Kernel Version: 5.15.167.4-microsoft-standard-WSL2
Operating System: Docker Desktop
OSType: linux
Architecture: x86_64
CPUs: 8
Total Memory: 3.762GiB
Name: docker-desktop
ID: 8e837997-d0b3-4f82-971a-43711c0dfef2
Docker Root Dir: /var/lib/docker
Debug Mode: false
HTTP Proxy: http.docker.internal:3128
HTTPS Proxy: http.docker.internal:3128
No Proxy: hubproxy.docker.internal
Labels:
com.docker.desktop.address-npipe://\\.\pipe\docker_cli
Experimental: false
```

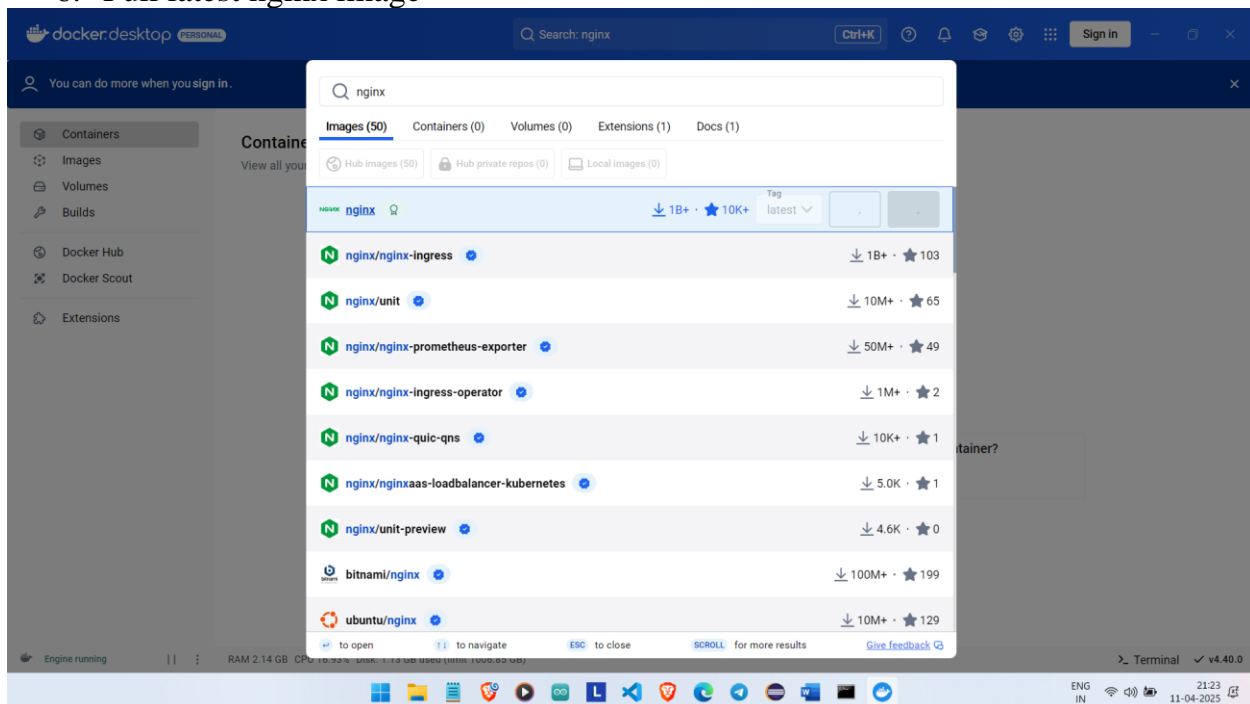
#### 4. Convert the Docker info into json format

```
C:\Users\prach>docker version --format '{{json .}}'
{"Client":{"Version":"28.0.4","ApiVersion":"1.48","DefaultAPIVersion":"1.48","GitCommit":"b8034c0","GoVersion":"go1.23.7","Os":"windows","Arch":"amd64","BuildTime":"Tue Mar 25 15:07:48 2025","Context":"desktop-l
inux"},"Server":{"Platform":{"Name":"Docker Desktop 4.40.0 (187762)"},"Components":[{"Name":"Engine","Version":"28.0.4","Details":{"ApiVersion":"1.48","Arch":"amd64","BuildTime":"Tue Mar 25 15:07:22 2025","Exper
imental":false,"GitCommit":"6430e49","GoVersion":"go1.23.7","KernelVersion":"5.15.167.4-microsoft-standard-WSL2","MinAPIVersion":"1.24","Os":"linux"},"Name":"Containerd","Version":"1.7.26","Details":{"GitCom
mit":"753481ec61c7c8955a23d6ff7bc8e4daed455734"},"Name":"runc","Version":"1.2.5","Details":{"GitCommit":"v1.2.5-0-g59923ef"},"Name":"docker-init","Version":"0.19.0","Details":{"GitCommit":"de40ad0"}}],"Versi
on":"28.0.4","ApiVersion":"1.48","MinAPIVersion":"1.24","GitCommit":"6430e49","GoVersion":"go1.23.7","Os":"linux","Arch":"amd64","KernelVersion":"5.15.167.4-microsoft-standard-WSL2","BuildTime":"2025-03-25T15:07
:22.000000000+00:00"}}
```

#### 5. Search for nginx server image on Docker desktop



## 6. Pull latest nginx image



```
C:\Users\prach>docker pull nginx
Using default tag: latest
latest: Pulling from library/nginx
Digest: sha256:09369da6b10306312cd908661320086bf87fbae1b6b0c49a1f50ba531fef2eab
Status: Image is up to date for nginx:latest
docker.io/library/nginx:latest
```

## Check images

```
C:\Users\prach>docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
nginx         latest    09369da6b103   2 months ago   279MB
```

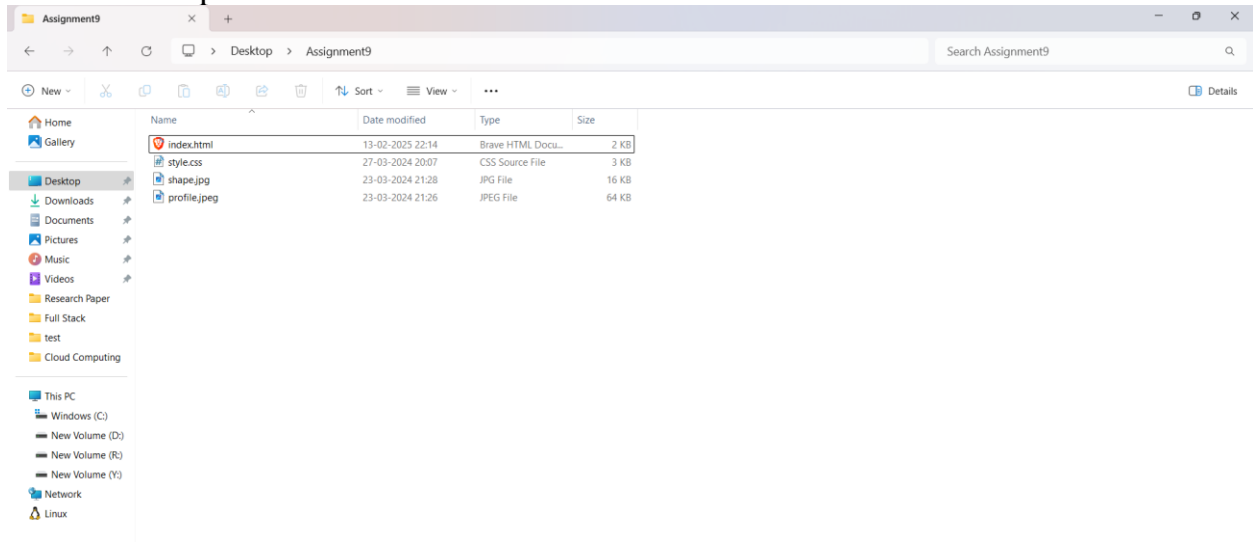
## Docker ps

```
C:\Users\prach\Desktop\Assignment9>docker run -d -p 8001:80 -v C:\Users\prach\Desktop\Assignment9:/usr/share/nginx/html --name assignment7 nginx
40e6d32672243d26f14eb45ad0ea82222b759c95f28a71453b6b1853761fe04d

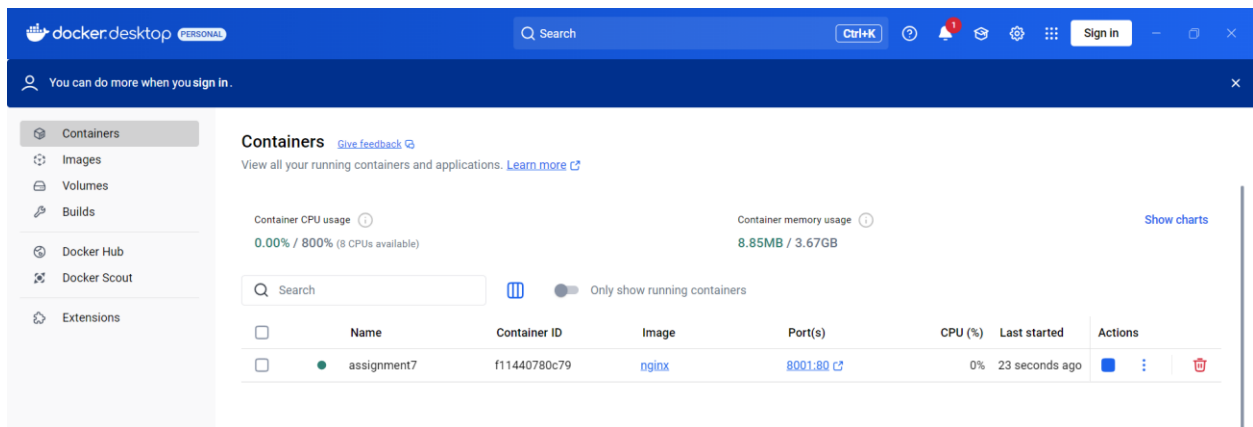
C:\Users\prach\Desktop\Assignment9>docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
40e6d3267224   nginx    "/docker-entrypoint..." About a minute ago Up About a minute   0.0.0.0:8001->80/tcp   assignment7

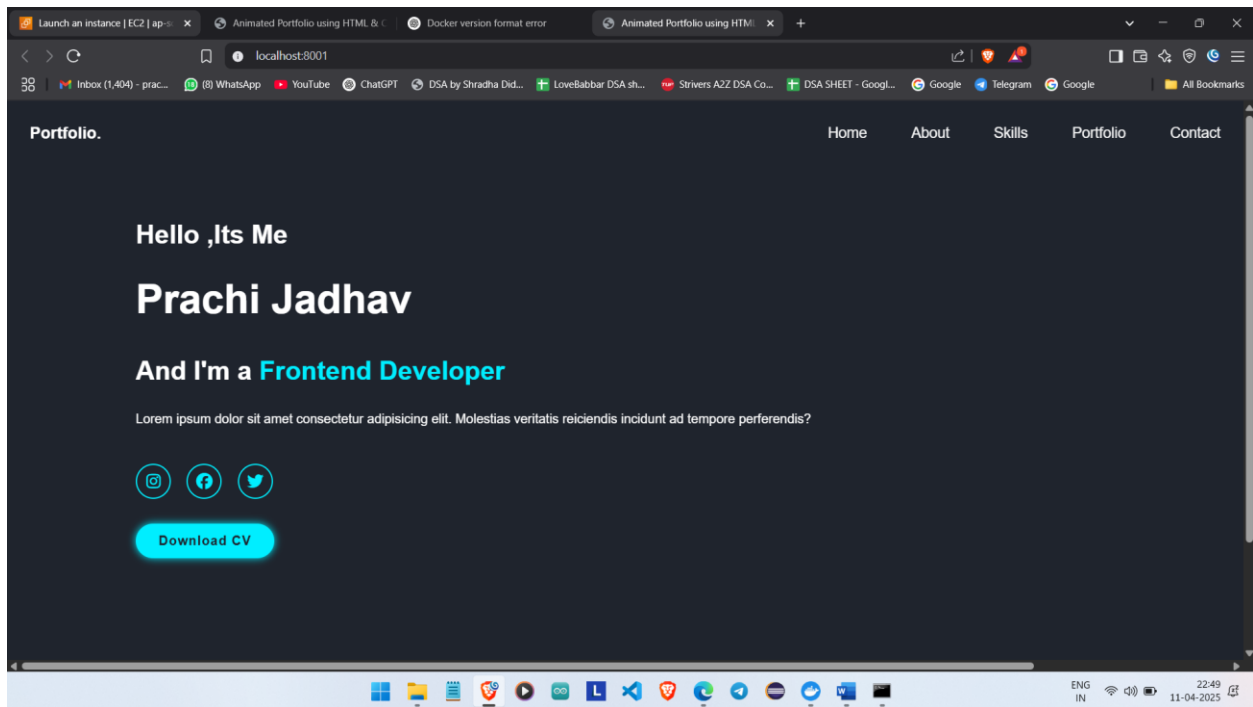
C:\Users\prach\Desktop\Assignment9>docker exec -it assignment7 /bin/bash
root@40e6d3267224:/# ls /usr/share/nginx/html
index.html  profile.jpeg  shape.jpg  style.css
root@40e6d3267224:/#
```

## Folder of sample website



## 7. Open the container in docker desktop





Creating a Docker file with the following contents: FROM nginx: latest  
COPY ./Assignment9/ /usr/share/nginx/html/ EXPOSE 80 Building the Docker file

```
C:\Users\prach\Desktop>docker build -t my-nginx-image .
[+] Building 4.2s (7/7) FINISHED
-> [internal] load build definition from Dockerfile
-> [internal] load metadata for docker.io/library/nginx:latest
-> [internal] load .dockerignore
-> [internal] load build context
-> [internal] load build context
-> [1/2] FROM docker.io/library/nginx:latest@sha256:09369da6b1036312cd988661320086bf87fbae1b0b0c49a1f50ba531fef2eab
-> resolve docker.io/library/nginx:latest@sha256:09369da6b1036312cd988661320086bf87fbae1b0b0c49a1f50ba531fef2eab
-> [2/2] COPY ./Assignment9/ /usr/share/nginx/html/
-> exporting to image
-> exporting layers
-> exporting manifest sha256:dab4eef5ae4f942ee6b8892bcd60c92c0042ecdd616df5d3ded10762538e589
-> exporting config sha256:e2563a11eb1be38653c9259b387ef91a033a656dc2746d586f31b50f4a04c86
-> exporting attestation manifest sha256:6caddc0155af391f82c72105f011aa6a02720fb4703935b04a71b404b788d771
-> exporting manifest list sha256:5771b6a92022b87253fb02c8d624553b1459b88a4fcf5911c8ede5d4198297
-> naming to docker.io/library/my-nginx-image:latest
-> unpacking to docker.io/library/my-nginx-image:latest
```

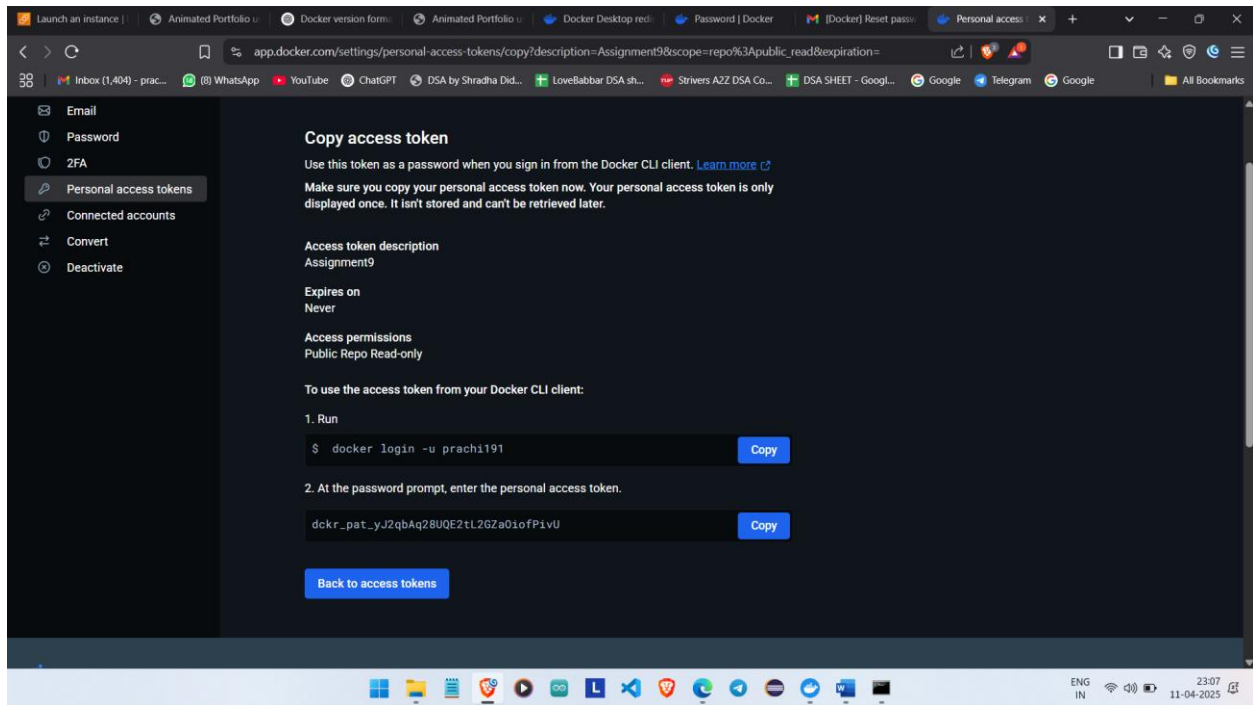
Check Docker images

```
C:\Users\prach\Desktop>docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
my-nginx-image	latest	5771b6a92022	45 seconds ago	279MB
nginx	latest	09369da6b103	2 months ago	279MB

Pushing image to Dockerhub

Generate personalized access token



```
C:\Users\prach\Desktop>docker login -u prachi191

Info → A Personal Access Token (PAT) can be used instead.
       To create a PAT, visit https://app.docker.com/settings

Password:
Login Succeeded

C:\Users\prach\Desktop>
```

Docker tag

Push into the new repo



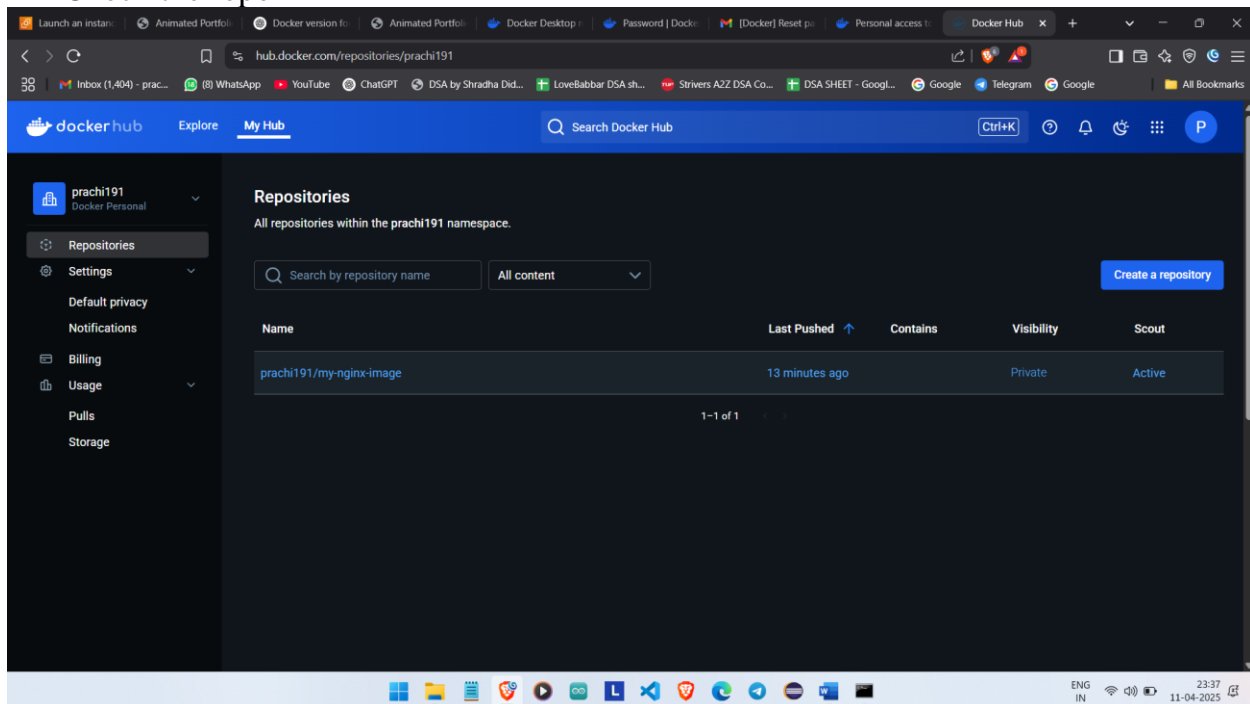
```
C:\Users\prach\Desktop>docker tag my-nginx-image varadml/my-nginx-image:latest

C:\Users\prach\Desktop>docker images
REPOSITORY              TAG          IMAGE ID          CREATED           SIZE
my-nginx-image           latest       5771b6a92022     33 minutes ago   279MB
varadml/my-nginx-image   latest       5771b6a92022     33 minutes ago   279MB
nginx                    latest       09369da6b103     2 months ago     279MB

C:\Users\prach\Desktop>docker push varadml/my-nginx-image:latest
The push refers to repository [docker.io/varadml/my-nginx-image]
553c8756fd66: Waiting
3dce86e3b082: Waiting
e81a6b82cf64: Waiting
b15e8c1b1884: Waiting
2ff829e20727: Waiting
8a628cdd7ccc: Waiting
75b642592991: Waiting
10fe6d2248e3: Waiting
```

## Result:

Check the repo



The screenshot shows the Docker Hub interface for the repository 'prachi191/my-nginx-image'. The page is titled 'Repositories' and lists all repositories within the 'prachi191' namespace. The repository 'prachi191/my-nginx-image' is listed with a 'Last Pushed' time of '13 minutes ago', 'Private' visibility, and 'Active' status. The interface includes a search bar, a 'Create a repository' button, and a sidebar with navigation options like 'Repositories', 'Settings', 'Default privacy', 'Notifications', 'Billing', 'Usage', 'Pulls', and 'Storage'.

Name	Last Pushed	Contains	Visibility	Scout
prachi191/my-nginx-image	13 minutes ago		Private	Active