

Documentation

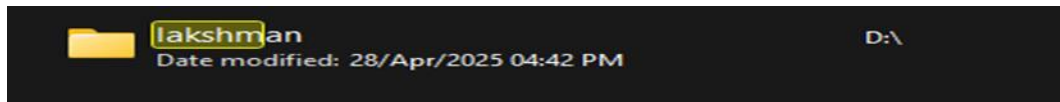
Name : P-LAKSHMAN

Roll No: 234343

The Process

Git hub Django → Docker container → docker hub

1. Create a new folder:



- Go to file explorer
- Select the location to create a new file
- Click on new
- Give a name to the file

2. open git bash and check directory:

- Changing of directory to where the file is located

```
6LABSYSTEM49@6LABSYSTEM49 MINGW64 ~ (master)
$ cd d:
```

- Changing of directory to the file LAKSHMAN

```
6LABSYSTEM49@6LABSYSTEM49 MINGW64 /d
$ cd Lakshman
```

3. Cloning of Git:

- It is used to copy local copy to repository
- Git clone is the command in Git version
- SYNTAX:

```
git clone https://github.com/username/repository.git
```

EXAMPLE:

```
6LABSYSTEM49@6LABSYSTEM49 MINGW64 /d/Lakshman
$ git clone https://github.com/rajasoxit/batch02-django-app.git
fatal: destination path 'batch02-django-app' already exists and is not an empty directory.
```

4. Changing directory:

- Changing of directory to the file located

```
6LABSYSTEM49@6LABSYSTEM49 MINGW64 /d/Lakshman
$ cd batch02-django-app
```

5.Docker ps:

- It is used to show the running process
- EXAMPLE: docker ps

```
6LABSYSTEM49@6LABSYSTEM49 MINGW64 /d/Lakshman/batch02-django-app (main)
$ docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS              NAMES
```

6.Docker Build:

- It is used to create an image that we are going to build
- It is used to create container image
- EXAMPLE: Docker build -t Django-app .
- '.' is used to bring all files in the folder to build
- It creates docker image in the dockerfile

```
6LABSYSTEM49@6LABSYSTEM49 MINGW64 /d/Lakshman/batch02-django-app (main)
$ docker build -t batch02-django-app .
[+] Building 2.3s (9/9) FINISHED
=> [internal] load build definition from Dockerfile
=> [internal] load .dockerignore
=> [internal] load build context
=> [1/4] FROM docker.io/library/python:3.10-slim@sha256:57038683f4a259e17fcff1cccf7ba30b1065f4b3317dabb5bd7c82640a5ed64f
=> [internal] load build context
=> [2/4] WORKDIR /app
=> [3/4] RUN pip install --upgrade pip && pip install django djangorestframework gunicorn
=> [4/4] COPY . .
=> exporting to image
=> exporting manifest sha256:d71b2ccd038f9c3a1ee0945bbca415346afd04a5dbbf22929097fb2a7ca8d84
=> exporting config sha256:651ac9ce771036071e8a07e1346b716f07a5fed296d5e4dca3a148ffec47308d
=> exporting attestation manifest sha256:7bd8fed02b15268dabbaa61b3a774f2d189f3bd49e37535409021090fd44
=> exporting manifest list sha256:f68e7e0563ad034316b0a33742c881e300e8432a3b55d67a3df12d968da29063b
=> naming to docker.io/library/batch02-django-app:latest
=> unpacking to docker.io/library/batch02-django-app:latest
View build details: docker-desktop://dashboard/build/desktop-linux/desktop-linux/h1lnpychk88da7v5gd4qe3mhq
```

7.Docker Image:

- Docker image is used to read-only template
- It servers as blueprint for creating a Docker container

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
django-app	latest	89732e45fa19	About a minute ago	302MB
batch02-django-app	latest	252c2e174ed1	About a minute ago	302MB
batch01-django-app	latest	2058e1966508	54 minutes ago	302MB
batch02-django-app	latest	b461814c0d87	23 hours ago	302MB
rajasoxit/batch02-django-app	latest	b461814c0d87	23 hours ago	302MB
batch02-django-app	latest	fe3ec547c932	23 hours ago	302MB
boyigowri/batch02	latest	f495925f8da2	2 days ago	12.2MB
sample	latest	f495925f8da2	2 days ago	12.2MB
nginx	latest	91734281c0eb	2 months ago	279MB
gcr.io/k8s-minikube/kicbase	v0.0.46	cef9f3c2e399	3 months ago	1.86GB
gcr.io/k8s-minikube/kicbase	<none>	fd2d445ddcc3	3 months ago	1.86GB
mongo	latest	aaad67f2dca9	4 months ago	1.18GB
mongo-express	latest	1b23d7976f02	13 months ago	286MB

8.Docker Run:

- It is used to Run the build image in the dockerfile

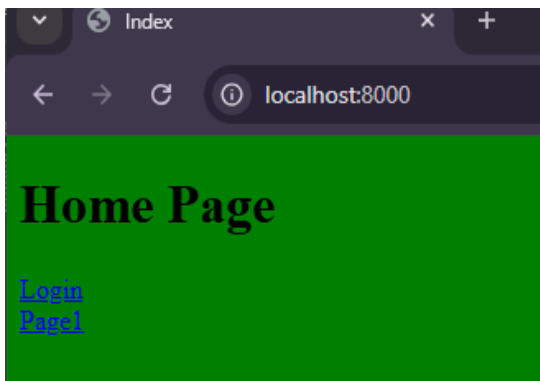
- Docker run is used in Docker file to execute and configure the docker image

```
6LABSYSTEM49@6LABSYSTEM49 MINGW64 /d/Lakshman/batch02-django-app (main)
$ docker run -p 8000:8000 batch02-django-app
watching for file changes with StatReloader
```

EXAMPLE: Docker run -p 8000:8000 django-app

9.Opening of browser:

- Open the browser <https://localhost:8000/> to see the image the was developed



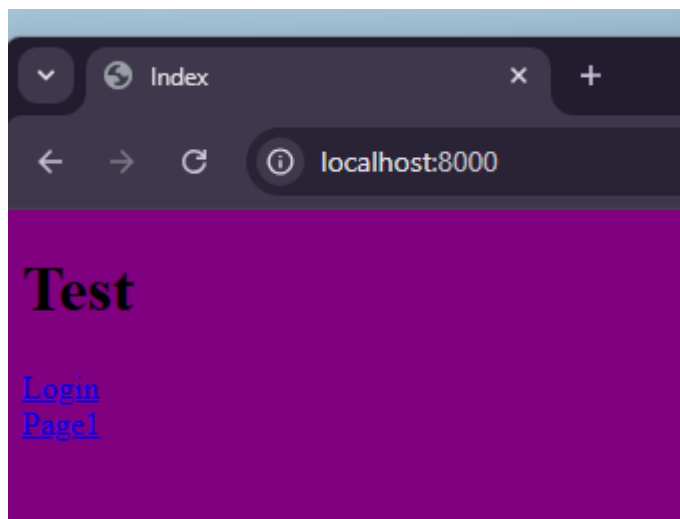
10.Visual Studio Code:

- Open VS code
- Open the with latest created folder
- Go to templates
- Select index.html
- It shows the code that we previously coded

- Changing the “Home Page” to “TEST” and bgcolor “Green” to “purple”

11.open browser:

- To see the changed file



12.Again build:

- Build the changed image

- ```

6LABSYSTEM49@6LABSYSTEM49 MINGW64 /d/Lakshman/batch02-django-app (main)
$ docker build -t batch02-django-app .
[+] Building 2.3s (9/9) FINISHED
=> [internal] load build definition from Dockerfile
=> == transferring dockerfile: 435B
=> [internal] load metadata for docker.io/library/python:3.10-slim
=> == transferring context: 28
=> [1/4] FROM docker.io/library/python:3.10-slimsha256:57038683f4a259e17fcff1ccef7ba30b1065f4b3317dabb5bd7c82640a5ed64f
=> == resolve docker.io/library/python:3.10-slimsha256:57038683f4a259e17fcff1ccef7ba30b1065f4b3317dabb5bd7c82640a5ed64f
=> [internal] load build context
=> == transferring context: 3.90kB
=> [internal] load build context
=> == exporting layers
=> == exporting manifest sha256:d71b2cc038f9c2a1e0945bbca415346af04a5d8bf22929097fb2a7ca8d84
=> == exporting config sha256:651ac9e771036671e8a07e1346b716f07a5fed29ed5e4dca3a148ffec47308d
=> == exporting attestation manifest sha256:7b08fed62b152685dab6aa6a1ba774f2d189f39d349e337535409021090fd44
=> == exporting manifest list sha256:f48e7e0563e03431800e33742c881e300e8432a3b55de7a3df12d968da29063b
=> == naming to docker.io/library/batch02-django-app:latest
=> == unpacking to docker.io/library/batch02-django-app:latest
View build details: docker-desktop://dashboard/build/desktop-linux/desktop-linux/h1lnpychk88da7v5gd4qe3mhq

```
- EXAMPLE: docker build -t Django-app

### 13.Again run:

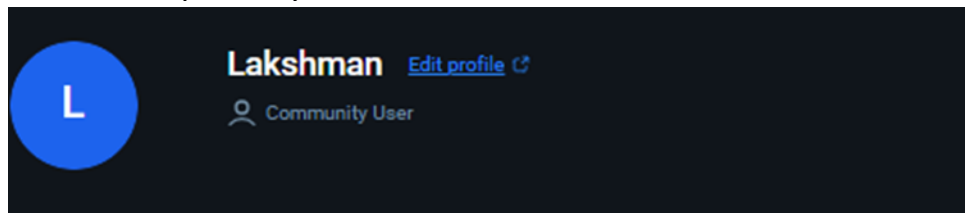
- Run the image that we build previously
- ```

6LABSYSTEM49@6LABSYSTEM49 MINGW64 /d/Lakshman/batch02-django-app (main)
$ docker run -p 8000:8000 batch02-django-app
watching for file changes with StatReloader

```
- EXAMPLE: docker run -p 8000:8000 django-app

14.Docker hub:

- Create a docker hub account
- Login to docker hub
- Create a Repository in the docker hub



- EXAMPLE: batch02-django-app

15.Docker tag:

- It is used to create a tag to the docker image
- SYNTAX:

```
docker tag SOURCE_IMAGE[:TAG] TARGET_IMAGE[:TAG]
```

- Source Image : the image that we have to create
 - Target Image: the image for we have taken
- ```

6LABSYSTEM49@6LABSYSTEM49 MINGW64 /d/Lakshman/batch02-django-app (main)
$ docker tag batch02-django-app lakshm11/batch02-django-app

```
- EXAMPLE: docker tag django-app rajasoxit/batch02-django-app

### 16.Docker Login:

- It is used to login into the docker
- It authenticating users to docker registers

- Pushing and pulling purpose

```
6LABSYSTEM49@6LABSYSTEM49 MINGW64 /d/Lakshman/batch02-django-app (main)
$ docker login
Authenticating with existing credentials... [Username: lakshm11]

Info → To login with a different account, run 'docker logout' followed by 'docker login'

Login Succeeded
```

Example: `docker login`

## **17.Docker Push:**

- It is used to push the image to a registry
- Deploy them to different environments or to the others

**Syntax:** `docker push NAME[:TAG]`

**EXAMPLE:** `docker push Lakshman/batch02-django-app`

```
6LABSYSTEM49@6LABSYSTEM49 MINGW64 /d/Lakshman/batch02-django-app (main)
$ docker push lakshm11/batch02-django-app
Using default tag: latest
The push refers to repository [docker.io/lakshm11/batch02-django-app]
765ef9c81879: Pushed
0379f0952262: Pushed
254e724d7786: Pushed
d387e3d256b6: Pushed
d15668d6a1de: Pushed
92e5f9e5de64: Pushed
c7d1f520aac5: Pushed
05c966c15560: Pushed
latest: digest: sha256:458ddd5241e57652ed45c9f30f3e2fe7173448b3eda51399f3984e4728ac052d size: 856
```