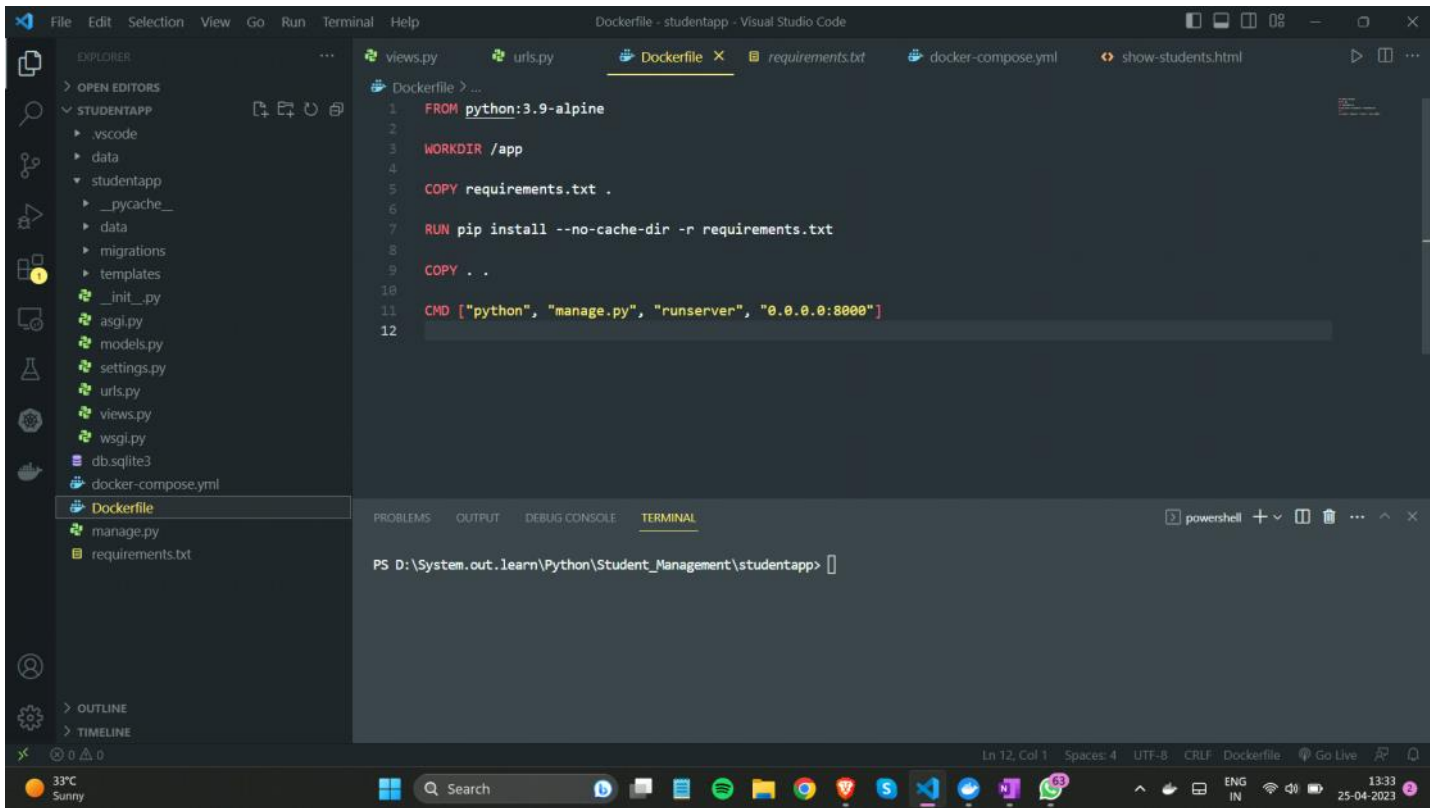


Created A Dockerfile for containerizing python project :

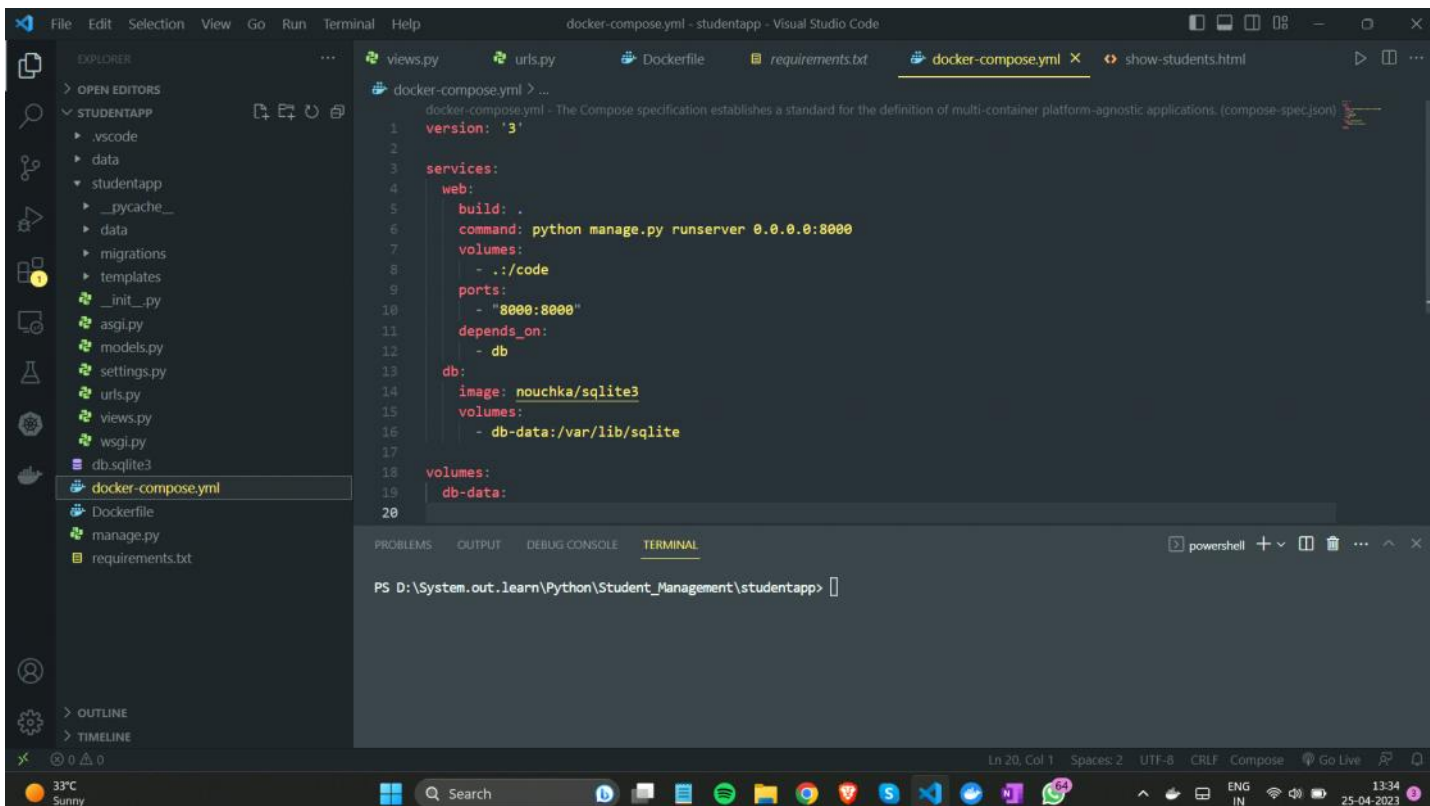


The screenshot shows the Visual Studio Code interface with a Dockerfile open in the editor. The Dockerfile contains the following instructions:

```
1 FROM python:3.9-alpine
2
3 WORKDIR /app
4
5 COPY requirements.txt .
6
7 RUN pip install --no-cache-dir -r requirements.txt
8
9 COPY . .
10
11 CMD ["python", "manage.py", "runserver", "0.0.0.0:8000"]
12
```

The Explorer sidebar on the left shows the project structure for 'STUDENTAPP', including files like 'views.py', 'urls.py', 'requirements.txt', 'docker-compose.yml', 'manage.py', and 'db.sqlite3'. The Terminal at the bottom shows the command prompt 'PS D:\System.out.learn\Python\Student_Management\studentapp>'.

Docker-Compose file :

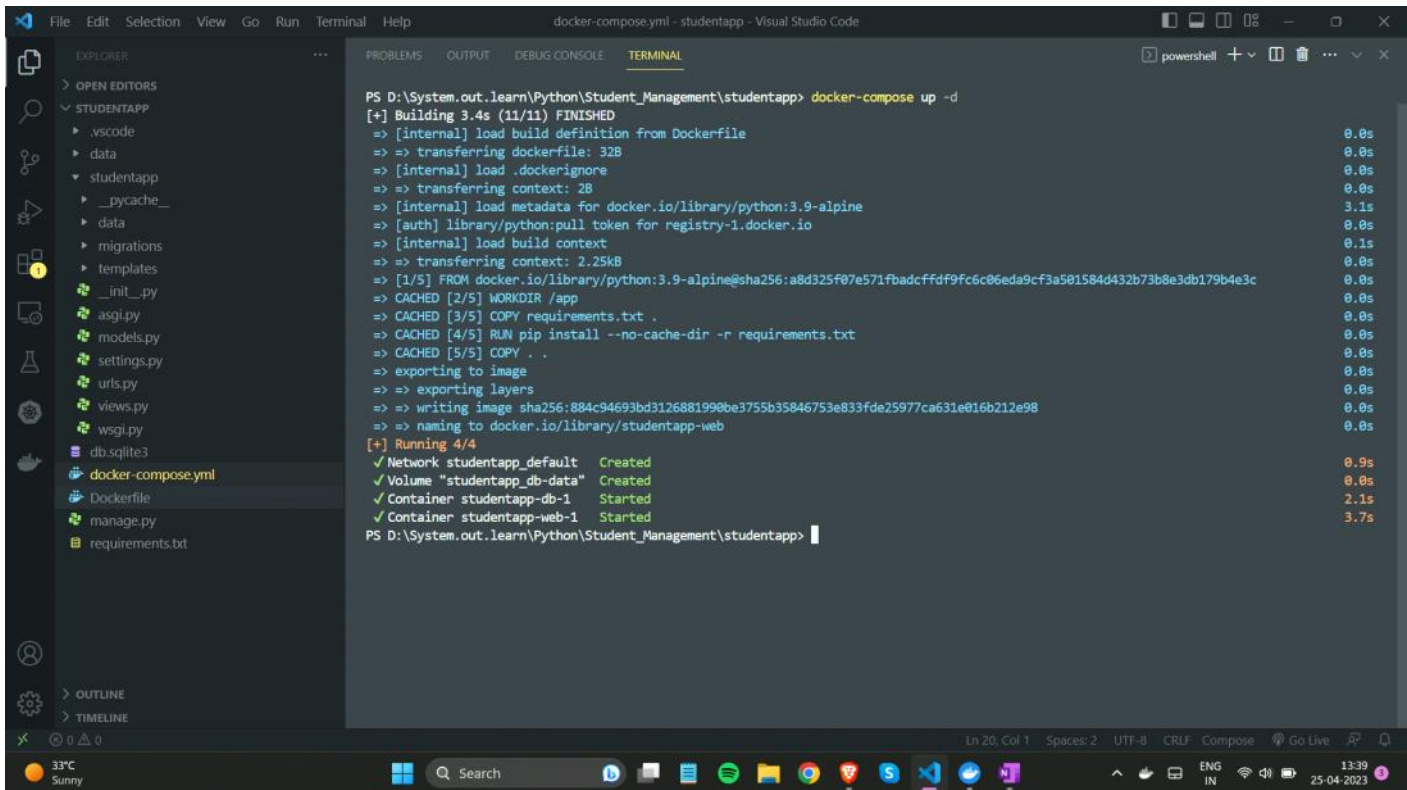


The screenshot shows the Visual Studio Code interface with a docker-compose.yml file open in the editor. The file contains the following configuration:

```
1 version: '3'
2
3 services:
4   web:
5     build: .
6     command: python manage.py runserver 0.0.0.0:8000
7     volumes:
8       - ./code
9     ports:
10      - "8000:8000"
11     depends_on:
12      - db
13   db:
14     image: nouchka/sqlite3
15     volumes:
16      - db-data:/var/lib/sqlite
17
18 volumes:
19   db-data:
20
```

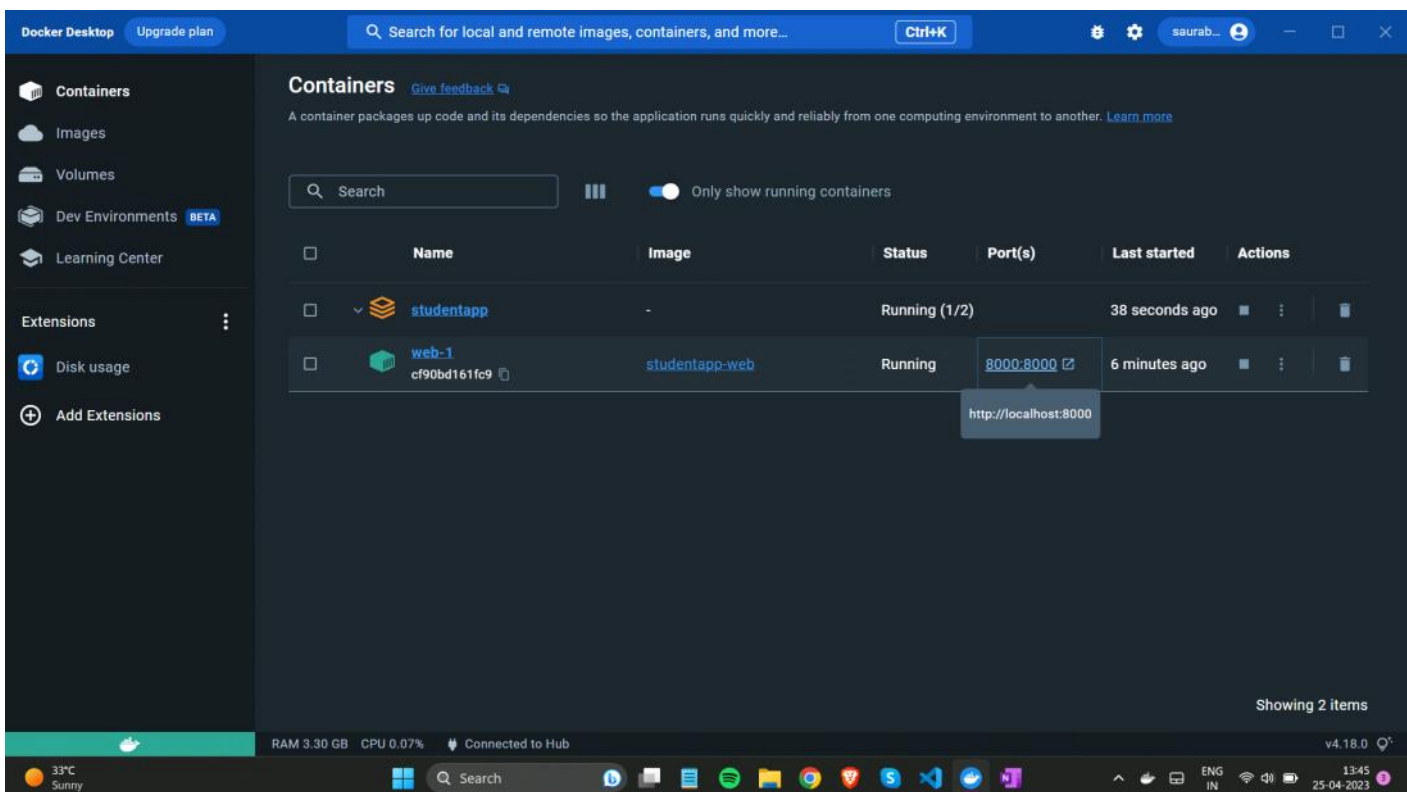
The Explorer sidebar on the left shows the project structure for 'STUDENTAPP', including files like 'views.py', 'urls.py', 'requirements.txt', 'docker-compose.yml', 'manage.py', and 'db.sqlite3'. The Terminal at the bottom shows the command prompt 'PS D:\System.out.learn\Python\Student_Management\studentapp>'.

Creating image :

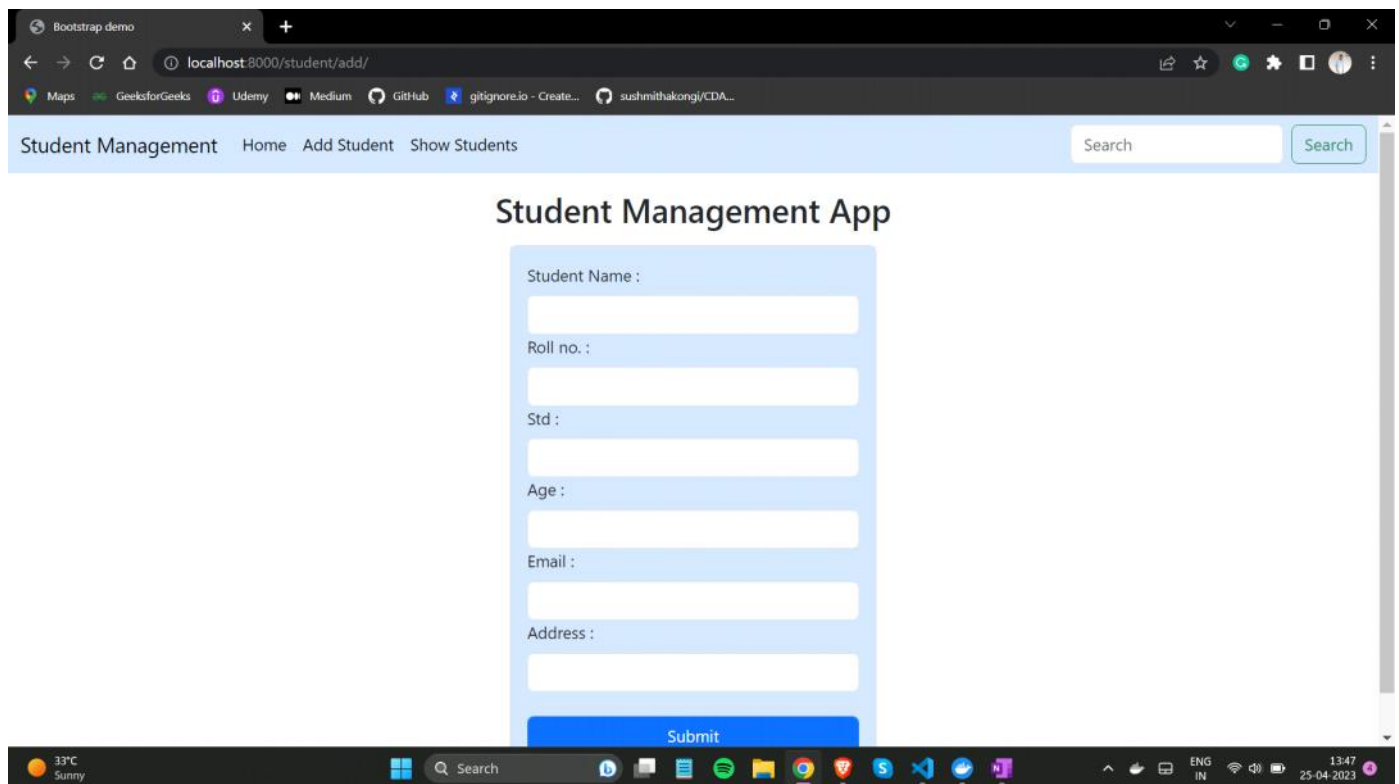


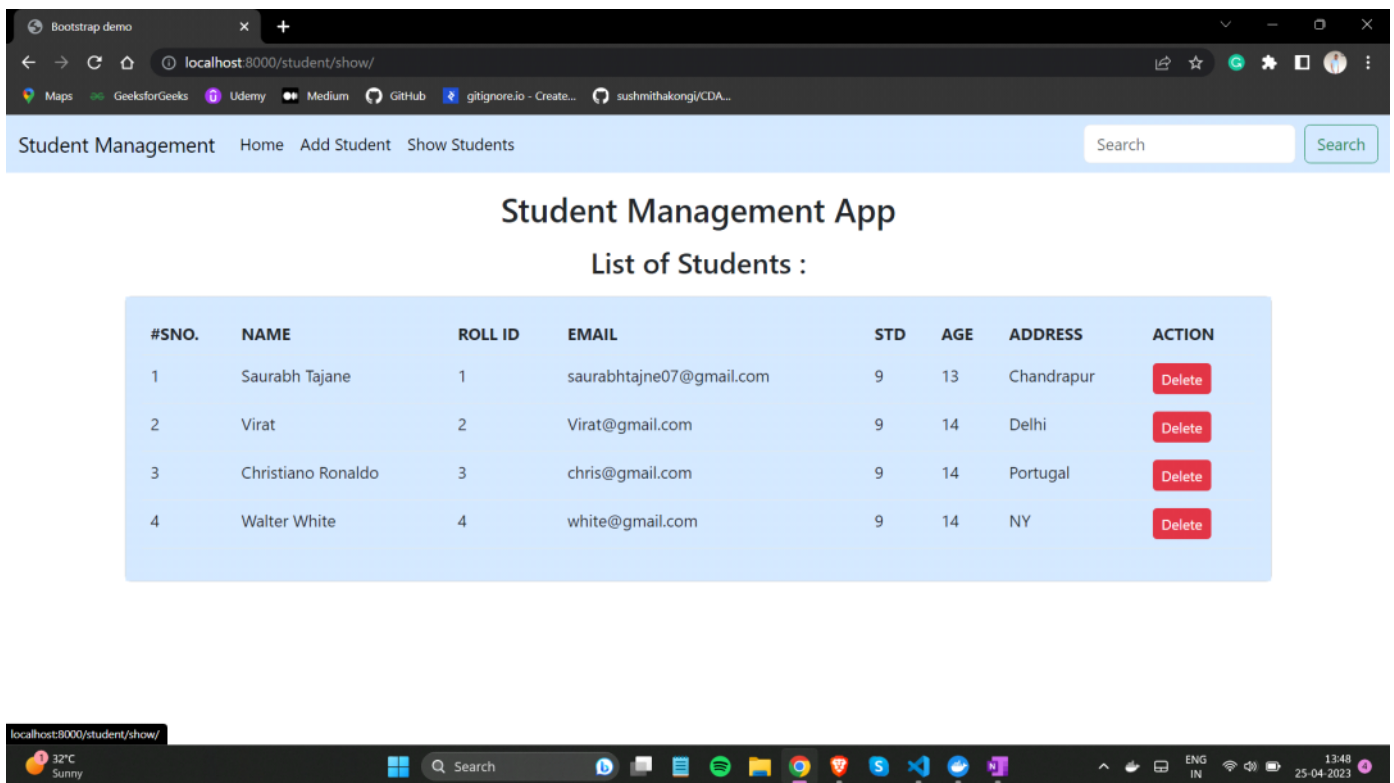
```
PS D:\System.out.learn\Python\Student_Management\studentapp> docker-compose up -d
[+] Building 3.4s (11/11) FINISHED
=> [internal] load build definition from Dockerfile                                0.0s
=> => transferring dockerfile: 32B                                              0.0s
=> [internal] load .dockerignore                                                 0.0s
=> => transferring context: 2B                                                  0.0s
=> [internal] load metadata for docker.io/library/python:3.9-alpine             3.1s
=> [auth] library/python:pull token for registry-1.docker.io                   0.0s
=> [internal] load build context                                                 0.1s
=> => transferring context: 2.25kB                                             0.0s
=> [1/5] FROM docker.io/library/python:3.9-alpine@sha256:a8d325f07e571fbadcffdf9fc6c06eda9cf3a501584d432b73b8e3db179b4e3c
=> CACHED [2/5] WORKDIR /app                                                    0.0s
=> CACHED [3/5] COPY requirements.txt .                                          0.0s
=> CACHED [4/5] RUN pip install --no-cache-dir -r requirements.txt              0.0s
=> CACHED [5/5] COPY . .                                                        0.0s
=> exporting to image                                                            0.0s
=> => exporting layers                                                         0.0s
=> => writing image sha256:884c94693bd3126881990be3755b35846753e833fde25977ca631e016b212e98
=> => naming to docker.io/library/studentapp-web                               0.0s
[+] Running 4/4
✓ Network studentapp_default Created                                           0.9s
✓ Volume "studentapp_db-data" Created                                          0.0s
✓ Container studentapp-db-1 Started                                           2.1s
✓ Container studentapp-web-1 Started                                           3.7s
PS D:\System.out.learn\Python\Student_Management\studentapp>
```

As you can see the image has been created and app is listening on localhost:8000

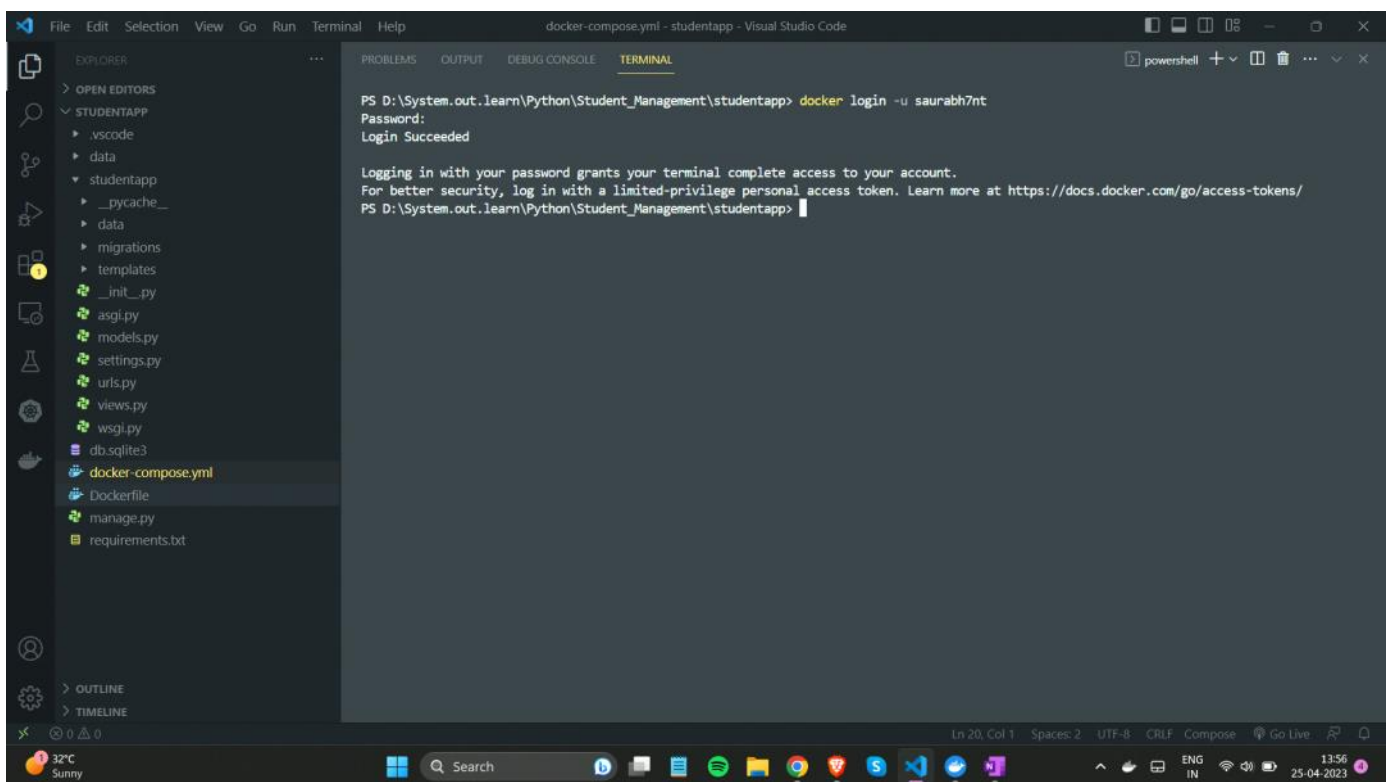


Here's the app :





Logging in :

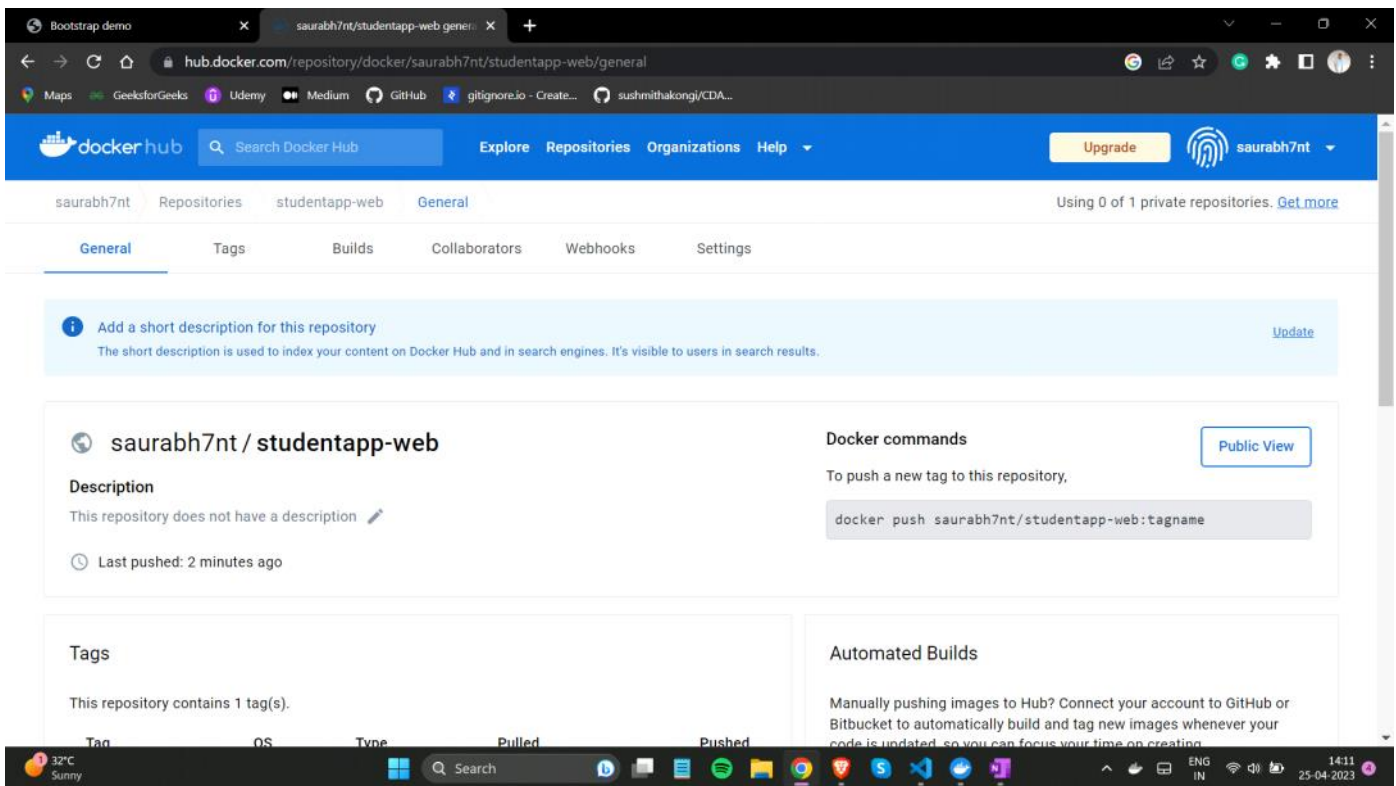


Pushing the image into docker registry :

The screenshot shows a Visual Studio Code terminal window with the following commands and output:

```
PS D:\System.out.learn\Python\Student_Management\studentapp> docker login -u saurabh7nt
Password:
Login Succeeded

Logging in with your password grants your terminal complete access to your account.
For better security, log in with a limited-privilege personal access token. Learn more at https://docs.docker.com/go/access-tokens/
PS D:\System.out.learn\Python\Student_Management\studentapp> docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS                               NAMES
cf90bd161fc9   studentapp-web                      "python manage.py ru..." 17 minutes ago Up 17 minutes 0.0.0.0:8000->8000/tcp   studentapp-web-1
PS D:\System.out.learn\Python\Student_Management\studentapp> docker tag studentapp-web saurabh7nt/studentapp-web
PS D:\System.out.learn\Python\Student_Management\studentapp> docker push saurabh7nt/studentapp-web
Using default tag: latest
The push refers to repository [docker.io/saurabh7nt/studentapp-web]
f829af7f36c7: Pushed
e47706bd5fb9: Pushed
3ab61ea5e31: Pushed
4612577202a9: Pushed
4fda38458d08: Mounted from library/python
a20baa2d04df: Mounted from library/python
389421e9c1a2: Mounted from library/python
afe664e55619: Mounted from library/python
f1417ff83b31: Mounted from saurabh7nt/firstcontainer
latest: digest: sha256:281dc86b00d6f2618677ba36a6b83c8310a37c53712f4b2d2d52bdb3eaf6141 size: 2202
PS D:\System.out.learn\Python\Student_Management\studentapp>
```



Pulling my created image from the docker registry by using another instance:

03:57:53

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.18
node1

ch3p87ie_ch3p89ae69v0008i2do0

IP

192.168.0.18

OPEN PORT

Memory

6.04% (241.7MiB / 3.906GiB)

CPU

2.76%

SSH

ssh ip172-19-0-154-ch3p87ie69v0008i2dmg@direct.labs.pl

DELETE

EDITOR

```

[node1] (local) root@192.168.0.18 ~
$ docker pull saurabh7nt/studentapp-web
Using default tag: latest
latest: Pulling from saurabh7nt/studentapp-web
f56be85fc22e: Pull complete
ea5757f4b3f8: Pull complete
f7a8af4d5a06: Pull complete
44c9399aefe6: Pull complete
80449c5f7a91: Pull complete
fe47034052e5: Pull complete
1d1b39e5e51c: Pull complete
4c49b6b76d06: Pull complete
21683087c377: Pull complete
Digest: sha256:281dc860b00d6f2618677ba36a6b83c8310a37c53712f4b2d2d52bdb3eaf6141
Status: Downloaded newer image for saurabh7nt/studentapp-web:latest
docker.io/saurabh7nt/studentapp-web:latest

```

32°C Sunny

Search

ENG IN

14:21 25-04-2023

03:56:30

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.18
node1

ch3p87ie_ch3p89ae69v0008i2do0

IP

192.168.0.18

OPEN PORT

Memory

6.01% (240.4MiB / 3.906GiB)

CPU

1.86%

SSH

ssh ip172-19-0-154-ch3p87ie69v0008i2dmg@direct.labs.pl

DELETE

EDITOR

```

[node1] (local) root@192.168.0.18 ~
$ docker images
REPOSITORY          TAG         IMAGE ID      CREATED       SIZE
saurabh7nt/studentapp-web  latest     884c94693bd3  51 minutes ago  82.7MB
[node1] (local) root@192.168.0.18 ~
$ docker run ^C
[node1] (local) root@192.168.0.18 ~
$ docker run -d saurabh7nt/studentapp-web
e15f7de6833ef0bd5ea8321e33e2b15130c4fb14a875d4221f6a79d1d0c01a07
[node1] (local) root@192.168.0.18 ~
$ docker ps
CONTAINER ID   IMAGE                  COMMAND                  CREATED        STATUS        PORTS          NAMES
e15f7de6833e   saurabh7nt/studentapp-web  "python manage.py ru..."  11 seconds ago  Up 9 seconds  8080            happy_mahavira
[node1] (local) root@192.168.0.18 ~
$

```

32°C Sunny

Search

ENG IN

14:23 25-04-2023