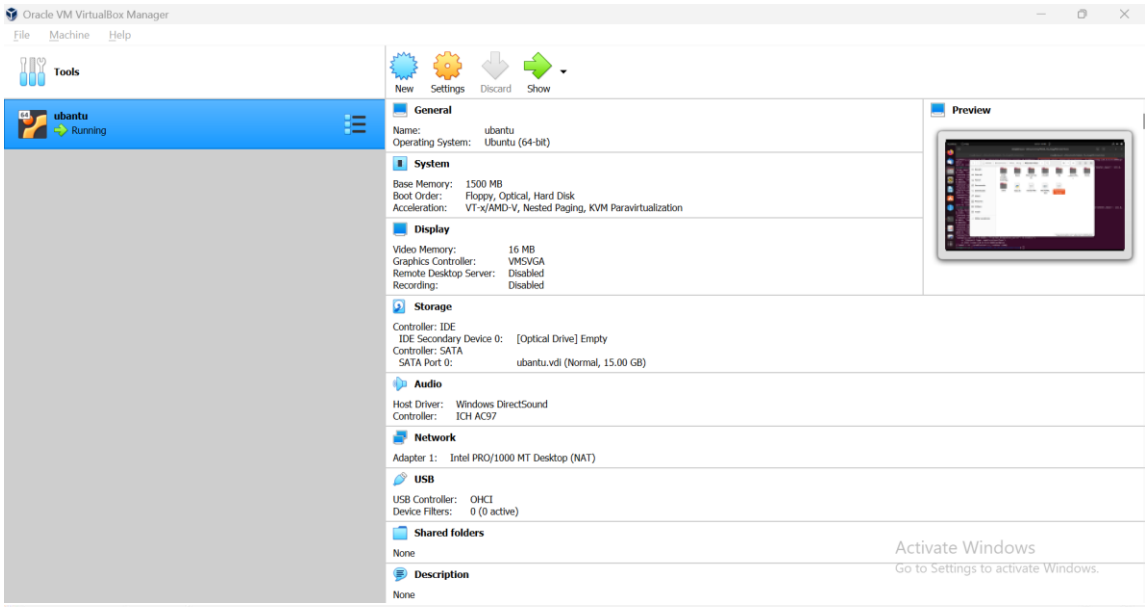
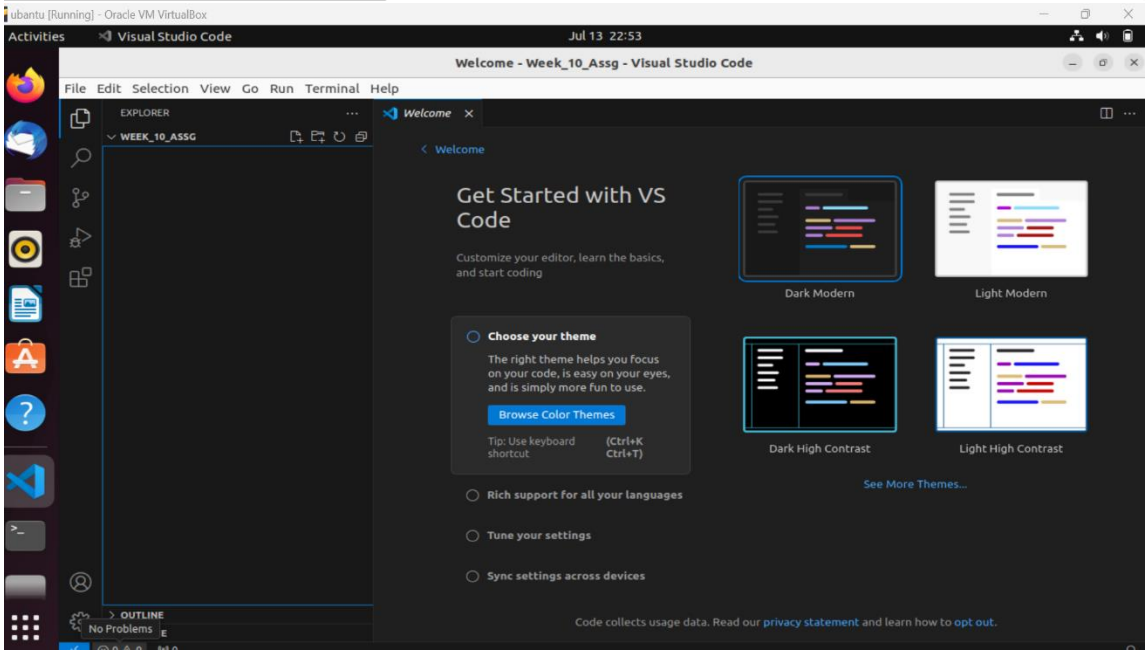
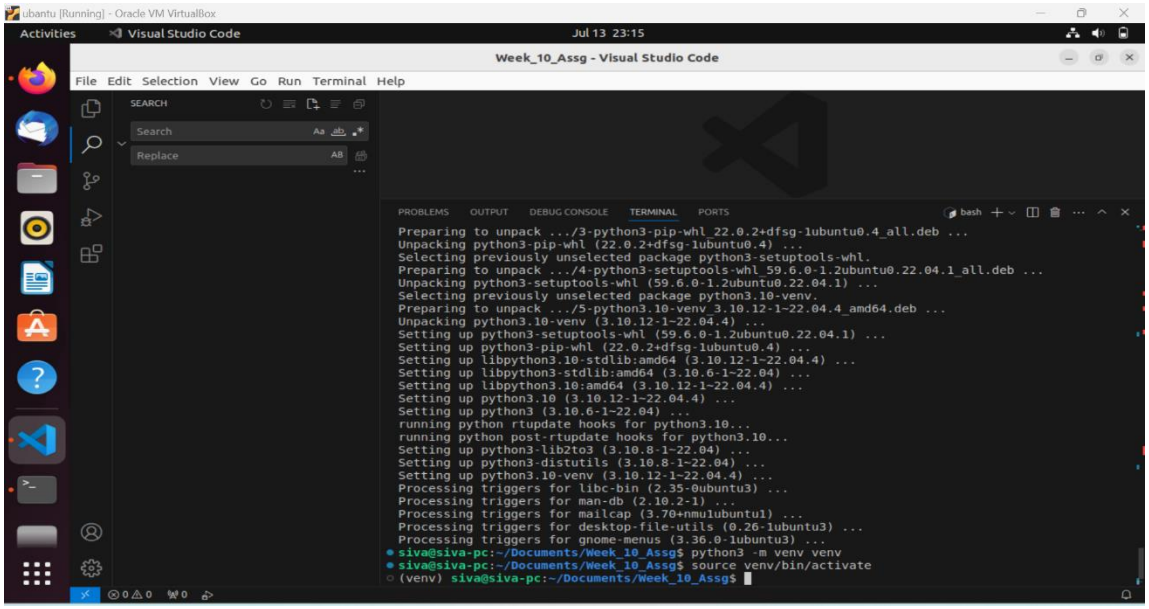
WEEK10 -WEEK 12 ASSIGNMENT

1. Host a Ubuntu Virtual Machine using Oracle VM Virtual Box

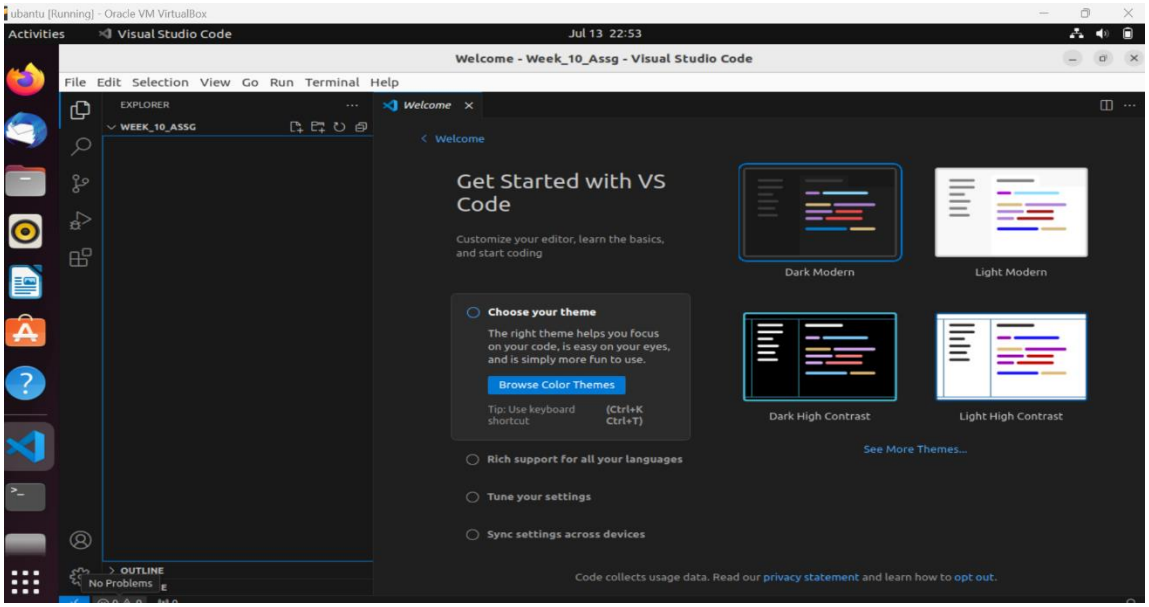
Solution : Hosted Ubuntu Virtual machine using oracle VM Virtual box







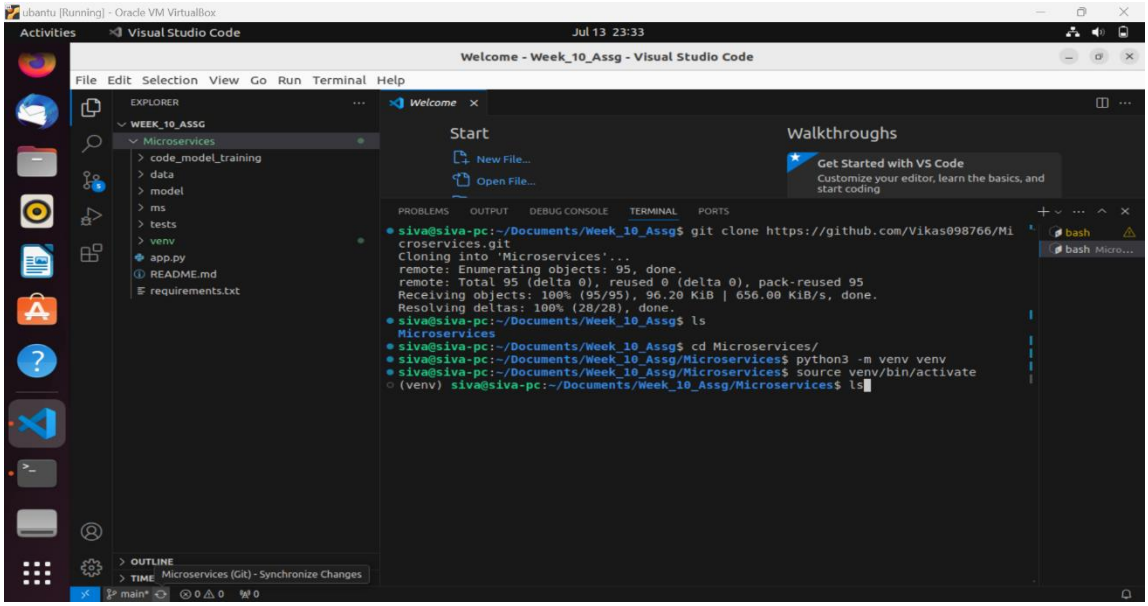
2. Set up Visual Studio code on Ubuntu VM.
Downloaded the VScode file from https://code.visualstudio.com/
Used Terminal to install it.



3. Set up Python
Solution : Python is set up, please find below snap with python version

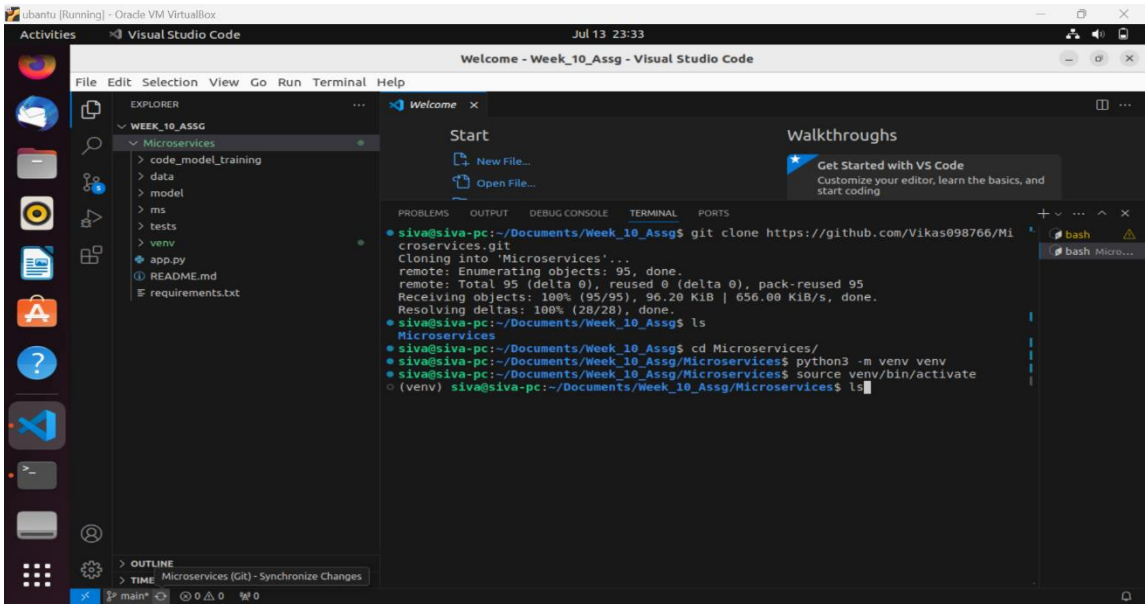
4. Clone this Github repository
https://github.com/Vikas098766/Microservices.git

Solution : Cloned using the command

- git clone https://github.com/Vikas098766/Microservices.git
- 

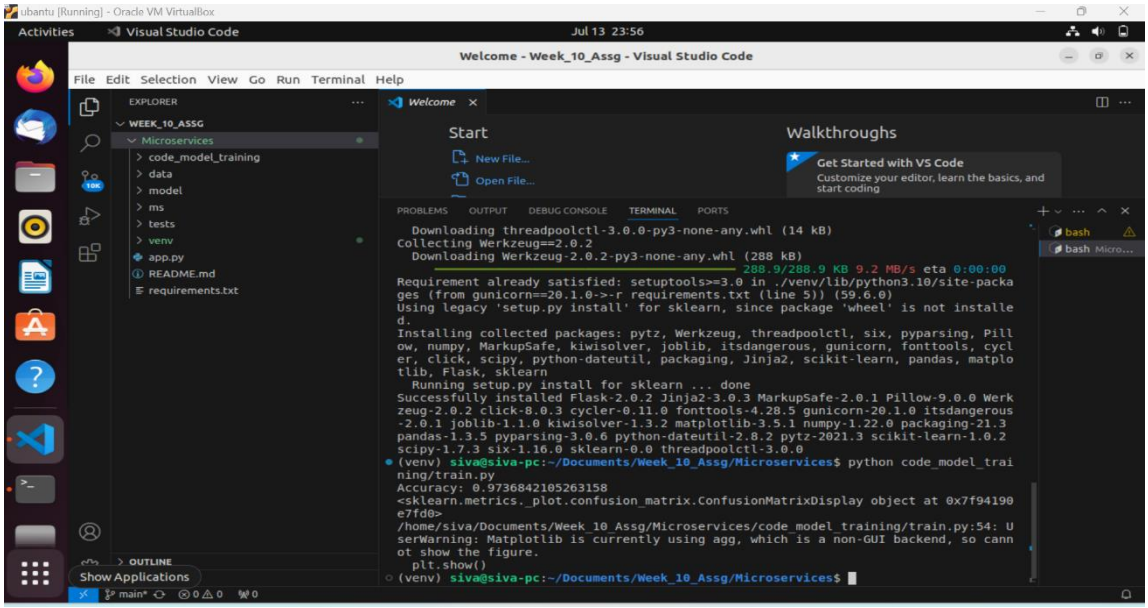
5. Create a Virtual Environment.
Solution : Created Virtual Environment using commands

- python3-m venv venv
- source venv/bin/activate

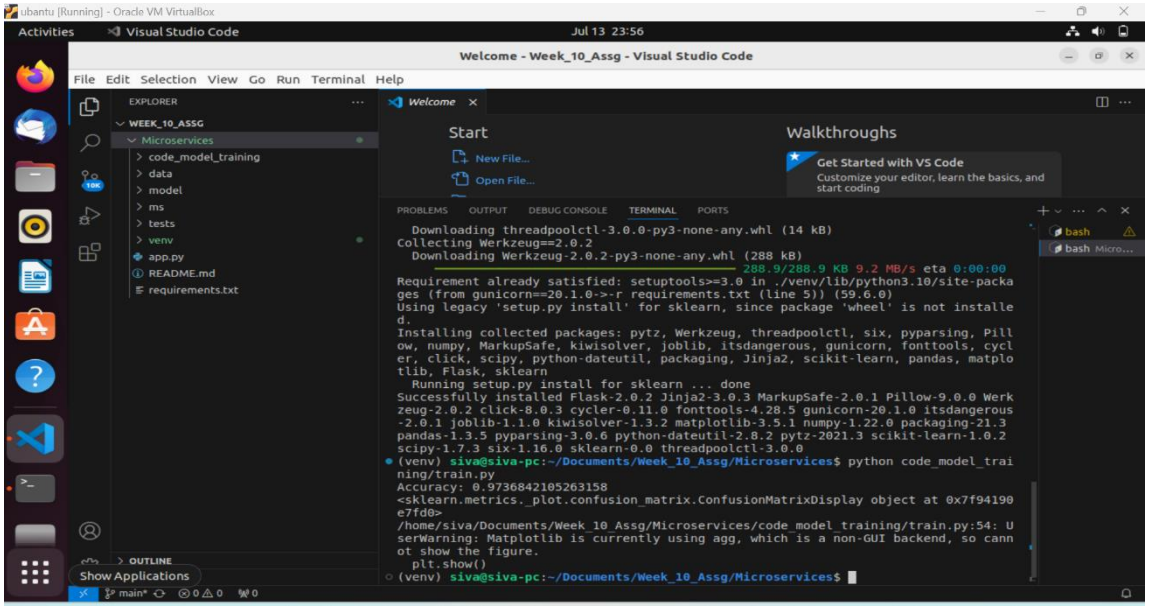


6. Install the dependencies from requirements.txt file.
Solution : Installed all dependencies present in requirements.txt file using the command

- pip install -r requirements.txt



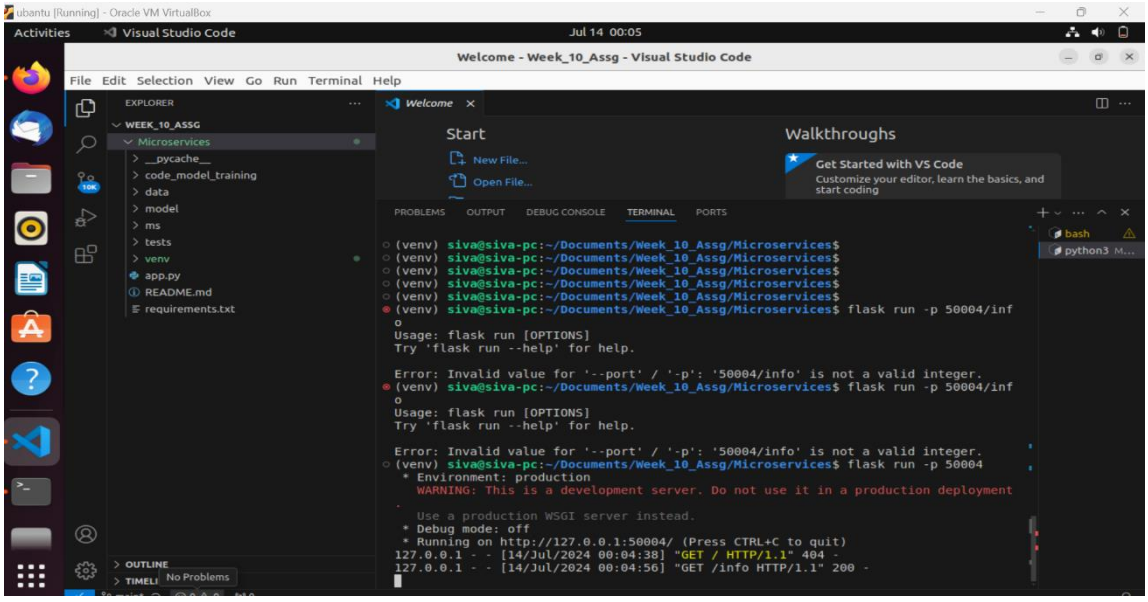
7. Train and save the model.
Solution : Trained and saved the model. ● Command: python code_model_training/train.py



8. Test the Flask web application.

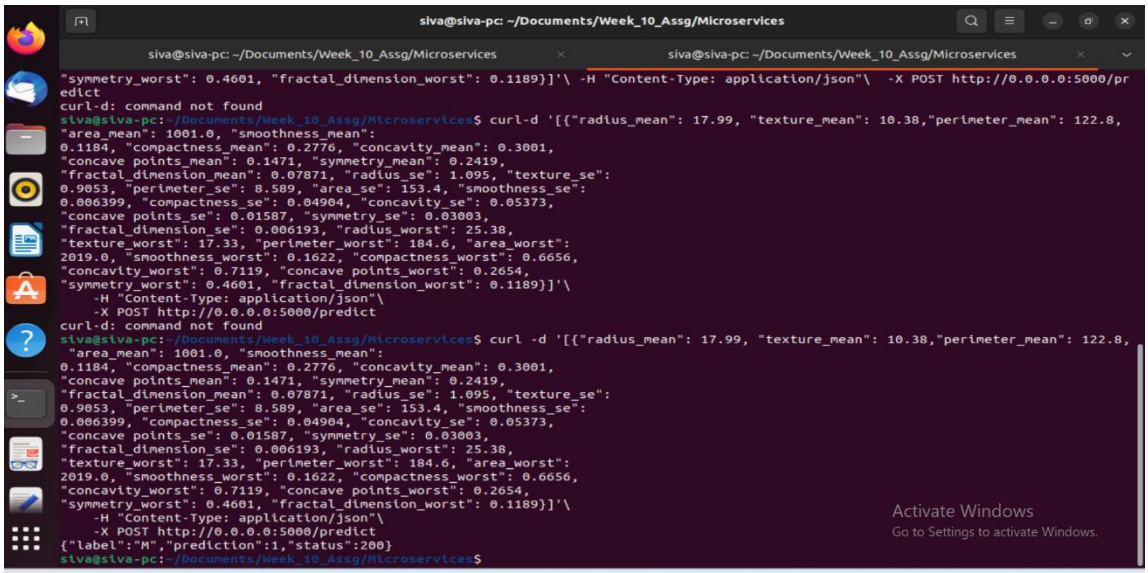
Solution : Tested web application by running the command.

- flask run -p 5000



9: Tested the the end point /info Command: curl -X GET http://localhost:5000/info Command: curl -X GET http://localhost:5000/health

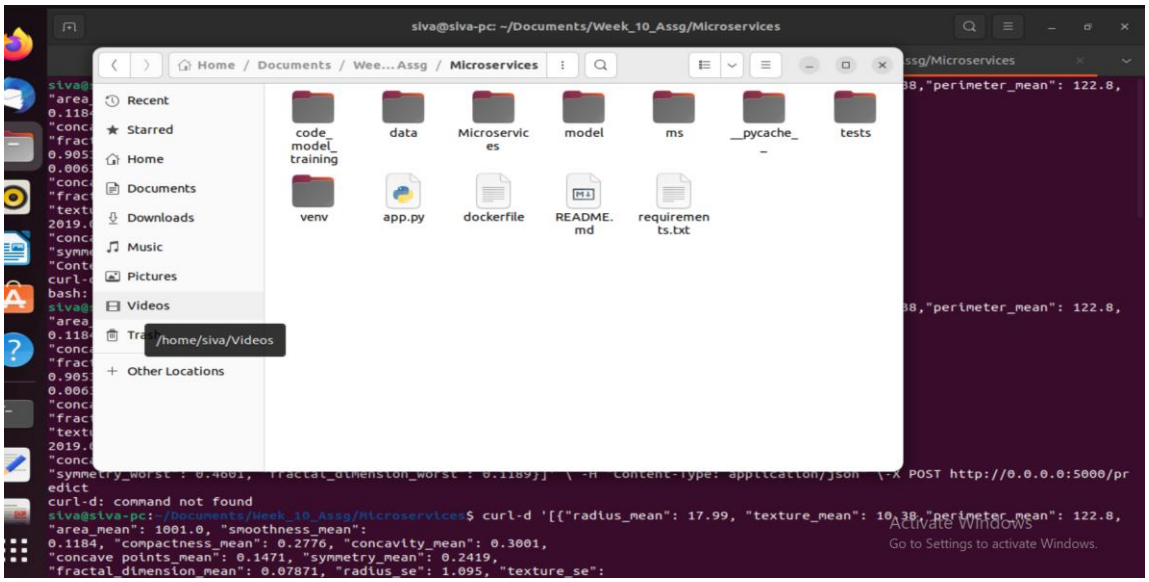
Command USED: curl-d '[{"radius_mean": 17.99, "texture_mean": 10.38, "perimeter_mean": 122.8, "area_mean": 1001.0, "smoothness_mean": 0.1184, "compactness_mean": 0.2776, "concavity_mean": 0.3001, "concave points_mean": 0.1471, "symmetry_mean": 0.2419, "fractal_dimension_mean": 0.07871, "radius_se": 1.095, "texture_se": 0.9053, "perimeter_se": 8.589, "area_se": 153.4, "smoothness_se": 0.006399, "compactness_se": 0.04904, "concavity_se": 0.05373, "concave points_se": 0.01587, "symmetry_se": 0.03003, "fractal_dimension_se": 0.006193, "radius_worst": 25.38, "texture_worst": 17.33, "perimeter_worst": 184.6, "area_worst": 2019.0, "smoothness_worst": 0.1622, "compactness_worst": 0.6656, "concavity_worst": 0.7119, "concave points_worst": 0.2654, "symmetry_worst": 0.4601, "fractal_dimension_worst": 0.1189}]' \-H "Content-Type: application/json" \-X POST http://0.0.0.0:5000/predict



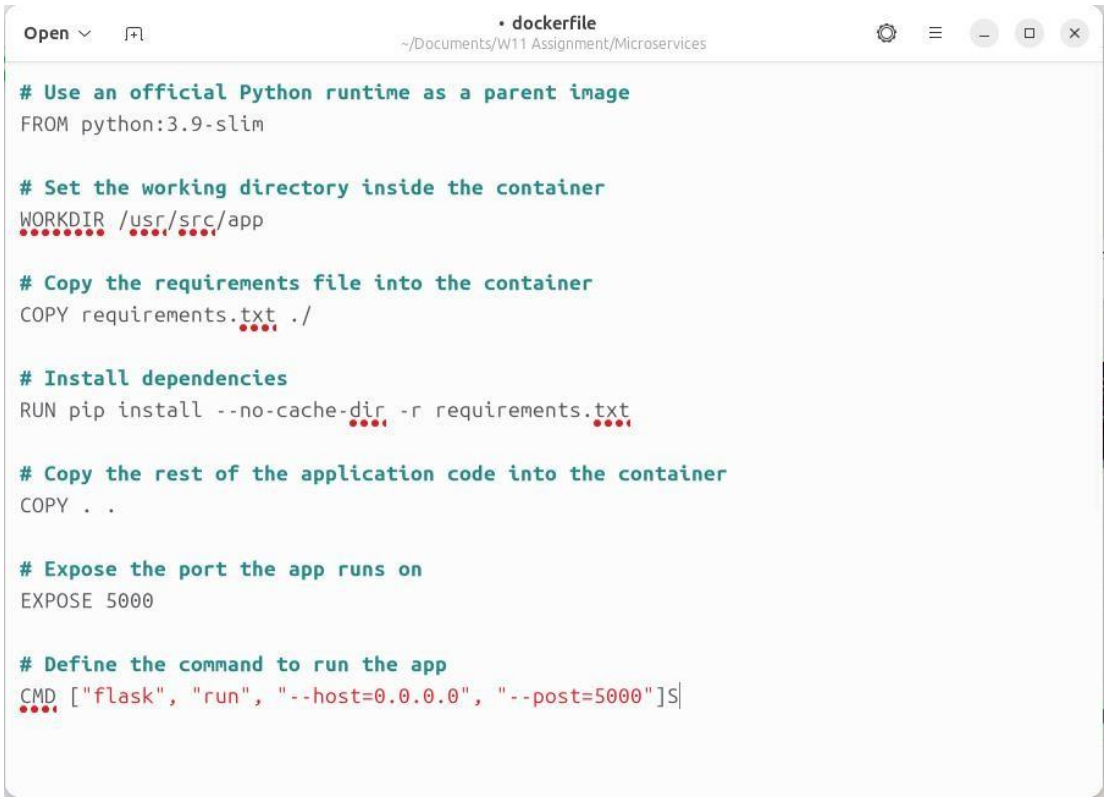
API ENDPOINT with /predict got the output as
{“label” :” M” ,” prediction” :1,” status” :200}

10. Steps to create a docker image.

1. Created the text file named dockerfile using the command as touch dockerfile

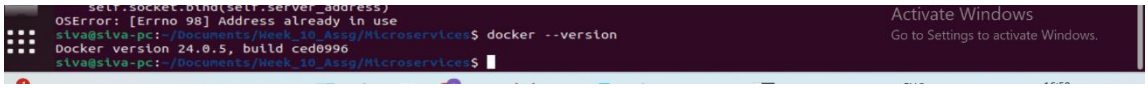


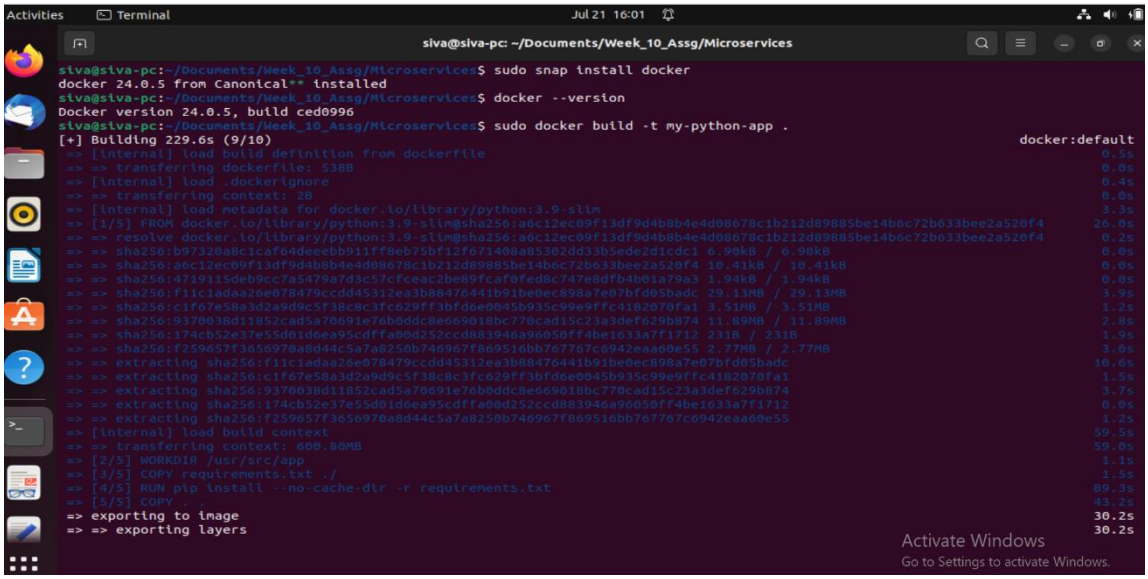
2. Within the txt file adding the following content within it.



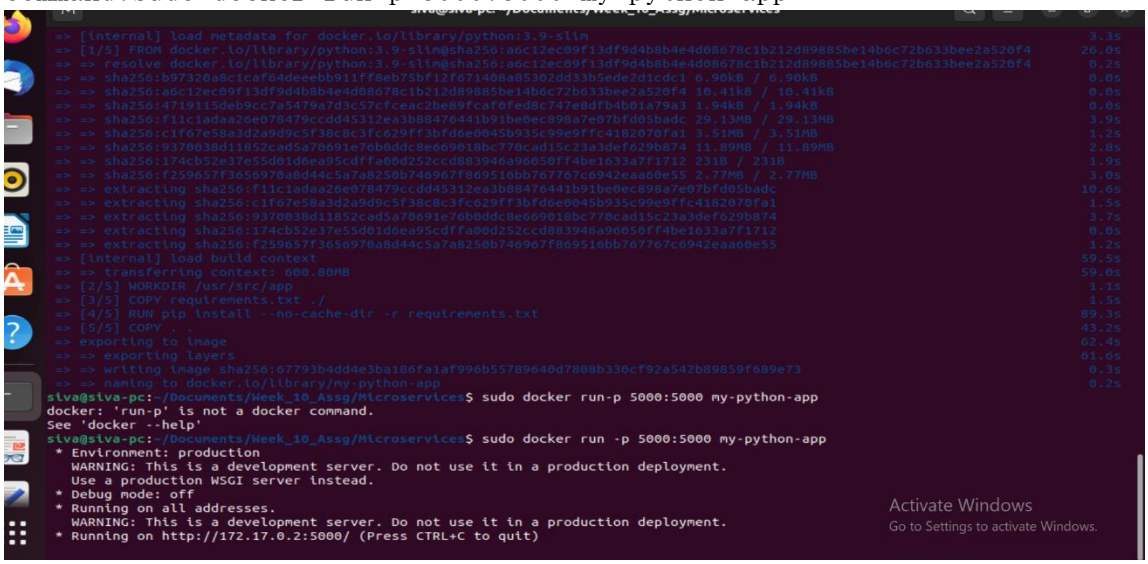
3.Build the docker image with the name as my-python-app

- Command: sudo docker build-t my-python-app .
-



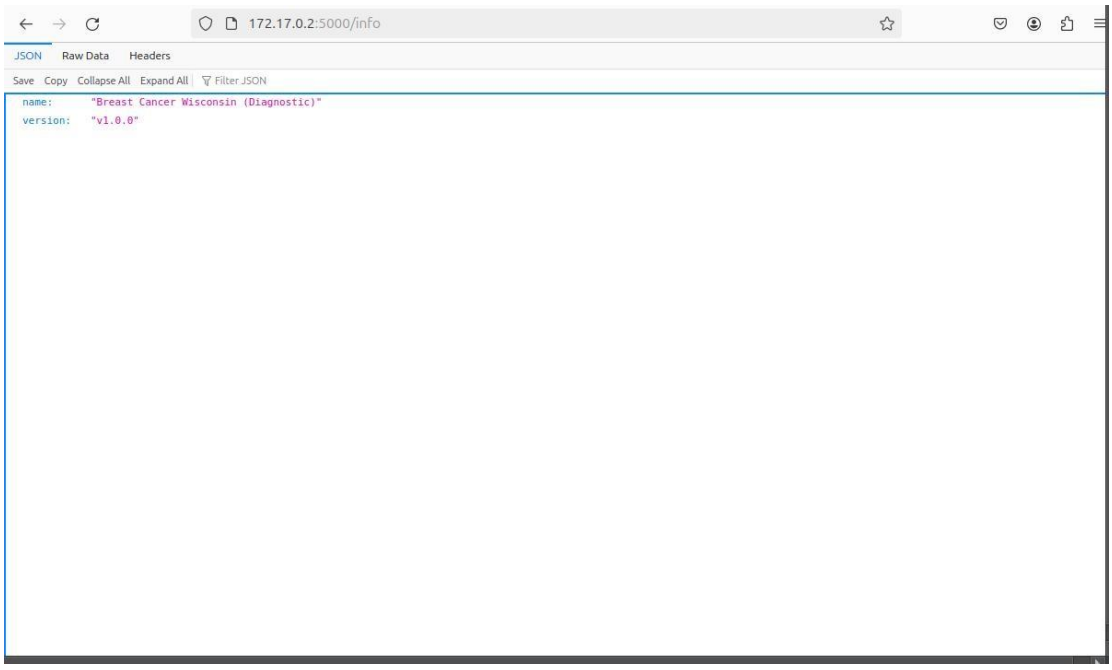


4. Run the Docker Container

- Command:sudo docker run-p 5000:5000 my-python-app
- 

11. To check the Docker image service locally with the help of POSTMAN end points as

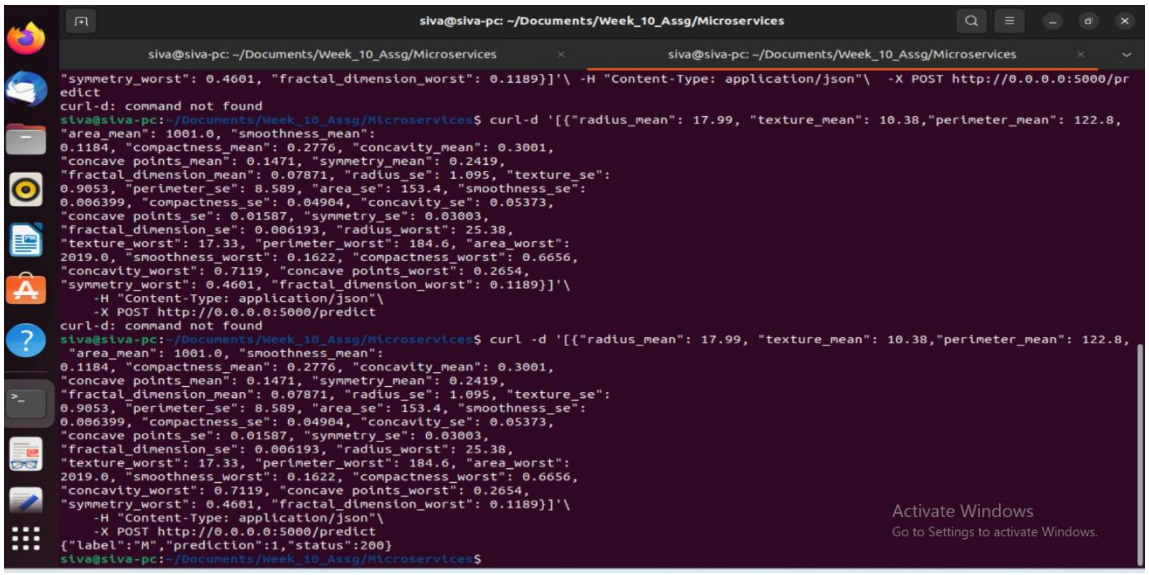
1. /info



2. /health


172.17.0.2:5000/health
ok

3. /predict


siva@siva-pc: ~/Documents/Week_10_Assg/Microservices
"symmetry_worst": 0.4601, "fractal_dimension_worst": 0.1189}]'\ -H "Content-Type: application/json"\ -X POST http://0.0.0.0:5000/predict
curl-d: command not found
siva@siva-pc:~/Documents/Week_10_Assg/Microservices$ curl-d '[{"radius_mean": 17.99, "texture_mean": 10.38,"perimeter_mean": 122.8,
"area_mean": 1001.0, "smoothness_mean":
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"symmetry_worst": 0.4601, "fractal_dimension_worst": 0.1189}]'\
-H "Content-Type: application/json"\
-X POST http://0.0.0.0:5000/predict
curl-d: command not found
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"texture_worst": 17.33, "perimeter_worst": 184.6, "area_worst":
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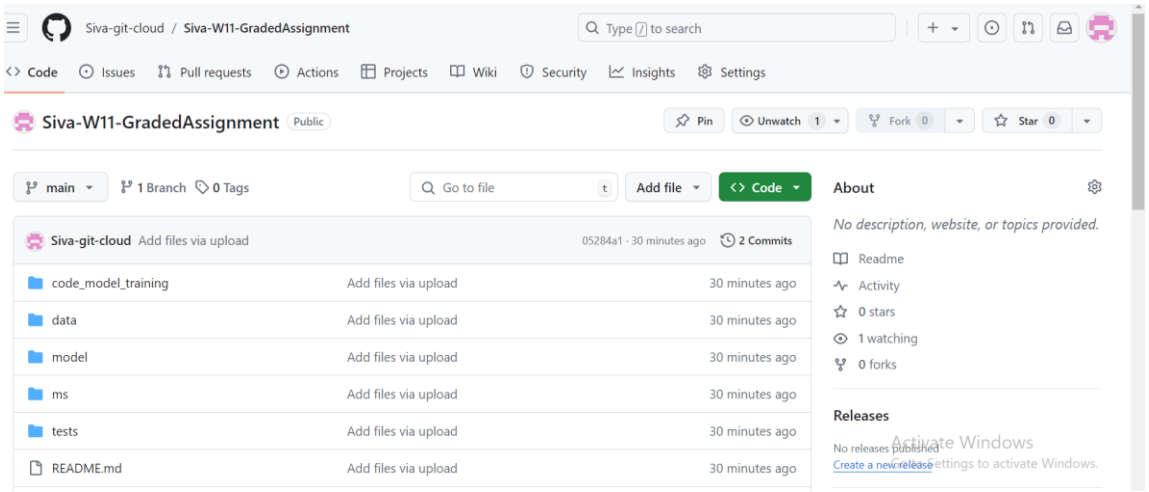
"concavity_worst": 0.7119, "concave points_worst": 0.2654,
"symmetry_worst": 0.4601, "fractal_dimension_worst": 0.1189}]'\
-H "Content-Type: application/json"\
-X POST http://0.0.0.0:5000/predict
{"label":"M","prediction":1,"status":200}
siva@siva-pc:~/Documents/Week_10_Assg/Microservices$
Activate Windows
Go to Settings to activate Windows.


Siva-git-cloud / Siva-W11-GradedAssignment
Type / to search
Code
Issues
Pull requests
Actions
Projects
Wiki
Security
Insights
Settings
Siva-W11-GradedAssignment
Public
Pin
Unwatch 1
Fork 0
Star 0
main
1 Branch
0 Tags
Go to file
Add file
Code
About
No description, website, or topics provided.
Readme
Activity
0 stars
1 watching
0 forks
Releases
No releases published
Create a new release
Siva-git-cloud Add files via upload
05284a1 · 30 minutes ago
2 Commits
code_model_training Add files via upload 30 minutes ago
data Add files via upload 30 minutes ago
model Add files via upload 30 minutes ago
ms Add files via upload 30 minutes ago
tests Add files via upload 30 minutes ago
README.md Add files via upload 30 minutes ago
Activate Windows
Go to Settings to activate Windows.