**Week 10 – Week 12: Graded Assignment Steps:**

**Steps to be performed:**

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

2.Set up Visual Studio code on Ubuntu VM.

3.Set up Python.

sudo apt update

sudo apt install software-properties-common

sudo add-apt-repository ppa:deadsnakes/ppa

sudo apt install python3.12

4.Clone this Github repository

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

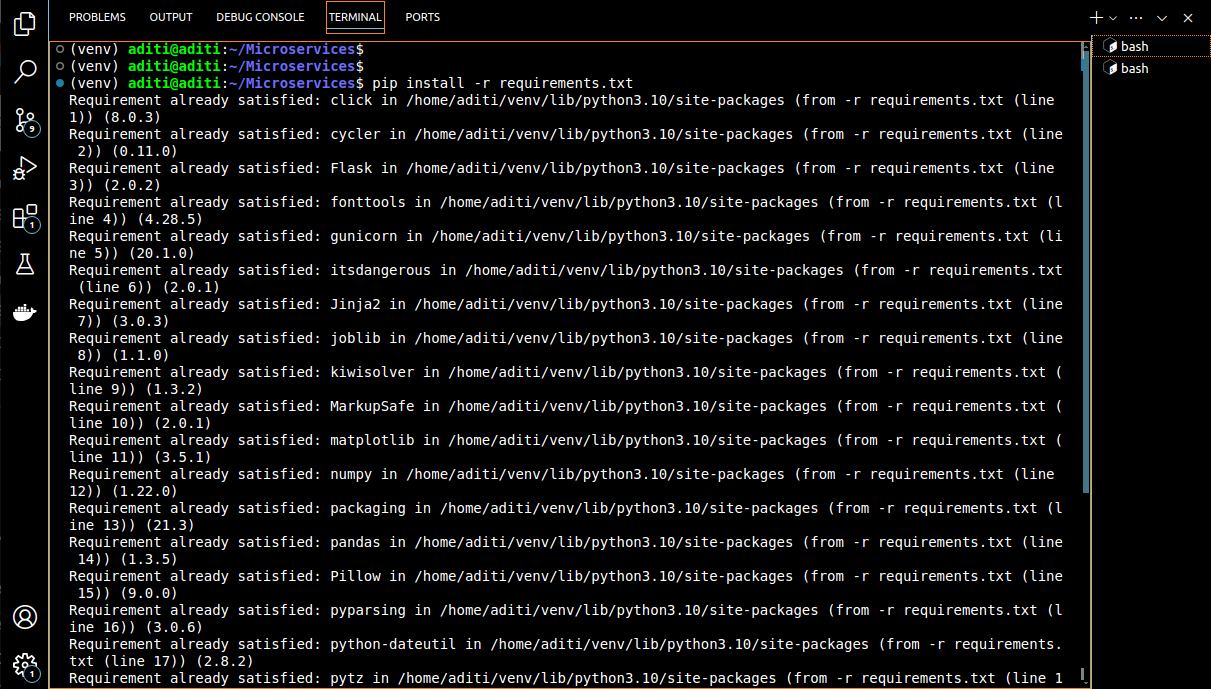
5.Create a Virtual Environment.

python3-m virtualenv venv

source venv/bin/activate

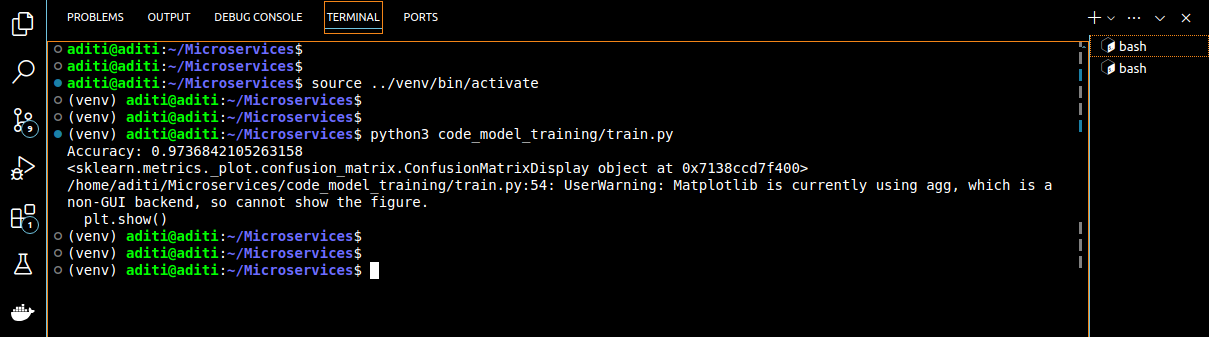
6.Install the dependencies from requirements.txt file.

pip install -r requirements.txt



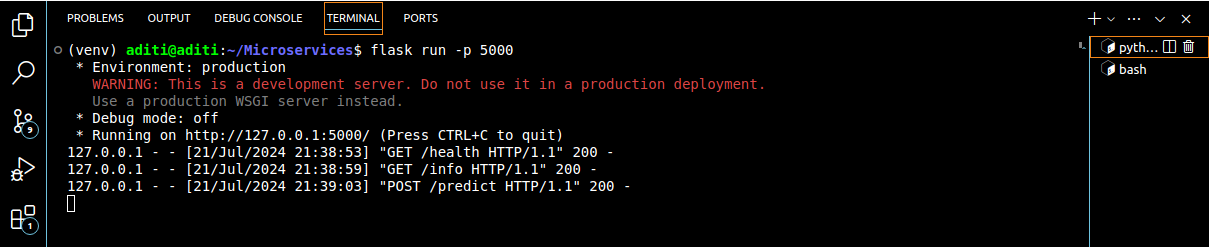
7.Train and save the model.

python code\_model\_training/train.py



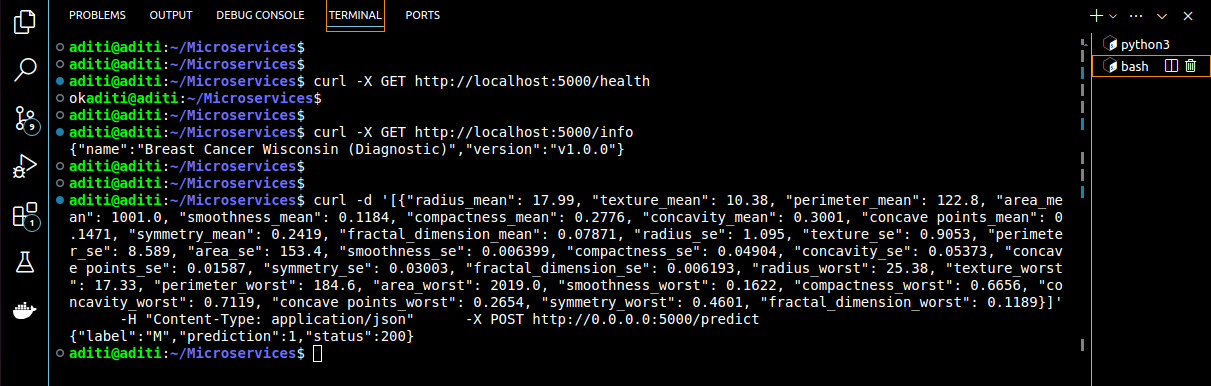
8.Test the Flask web application.

flask run -p 5000



9.Test the application and make predictions using the example calls available in the folder/tests.

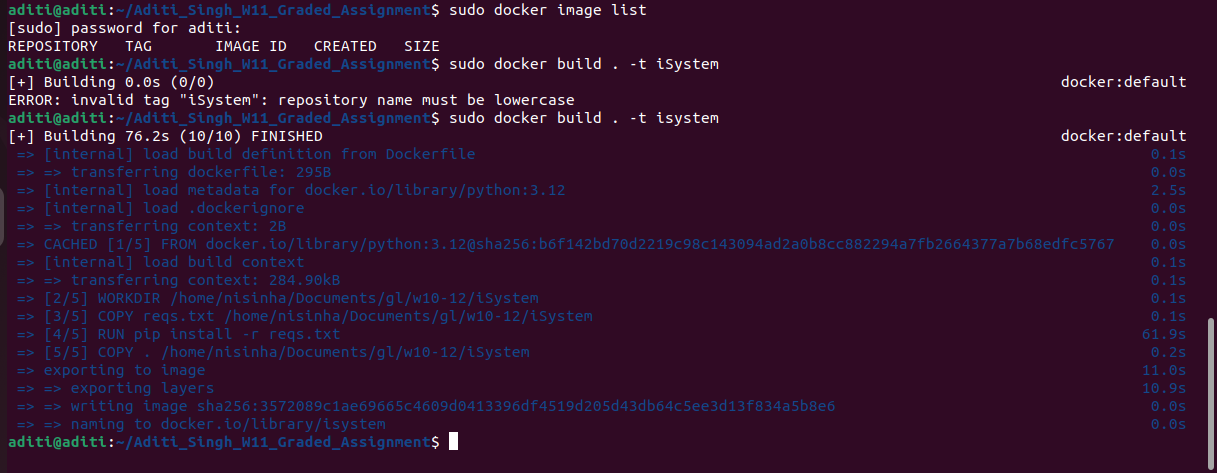
curl -X GET <http://localhost:5000/info>



10.Create a docker image containing everything needed to run the application.

sudo docker build . -t isystem

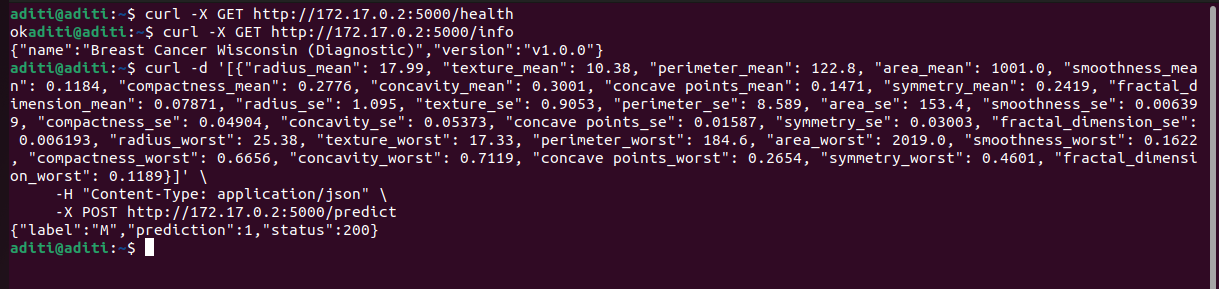
sudo docker image list



11.Run the containerized application as a prediction service and test it locally by passingsome example calls and get the prediction.

sudo docker run -it -p 5000:5000 isystem





12.Git push command:

git remote set-url origin https:// ghp\_42Z6C3SENTCysPPRkRphvA1kr0xmzo0fFzon.com/Adzinger/ Aditi\_Singh\_W11\_Graded\_Assignment

