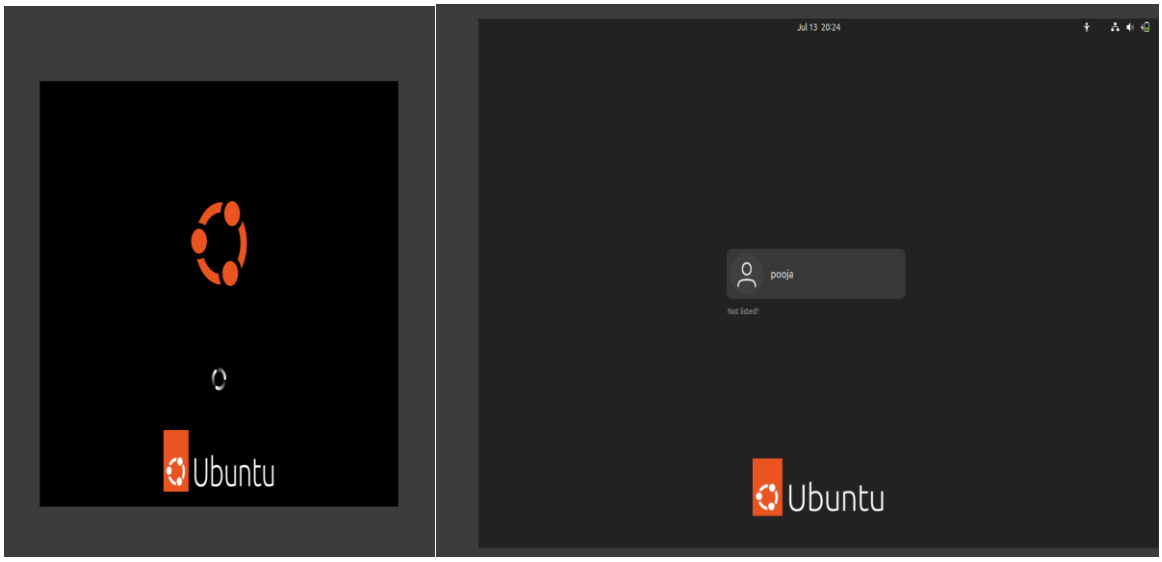
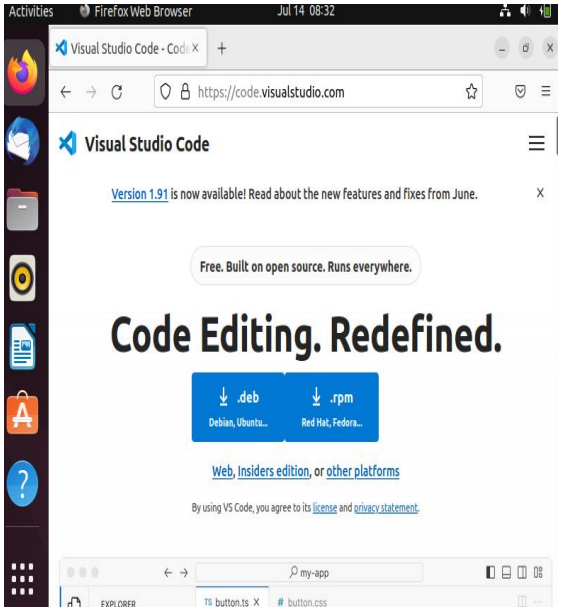
# Week 10 - Week 12: Graded Assignment

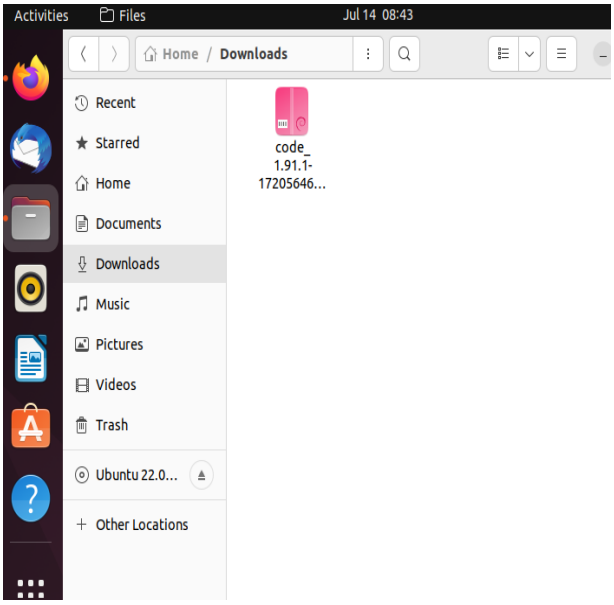
**Objective**: Implementing a microservice using the Python Flask framework on an Ubuntu virtual machine to serve a machine learning prediction model.

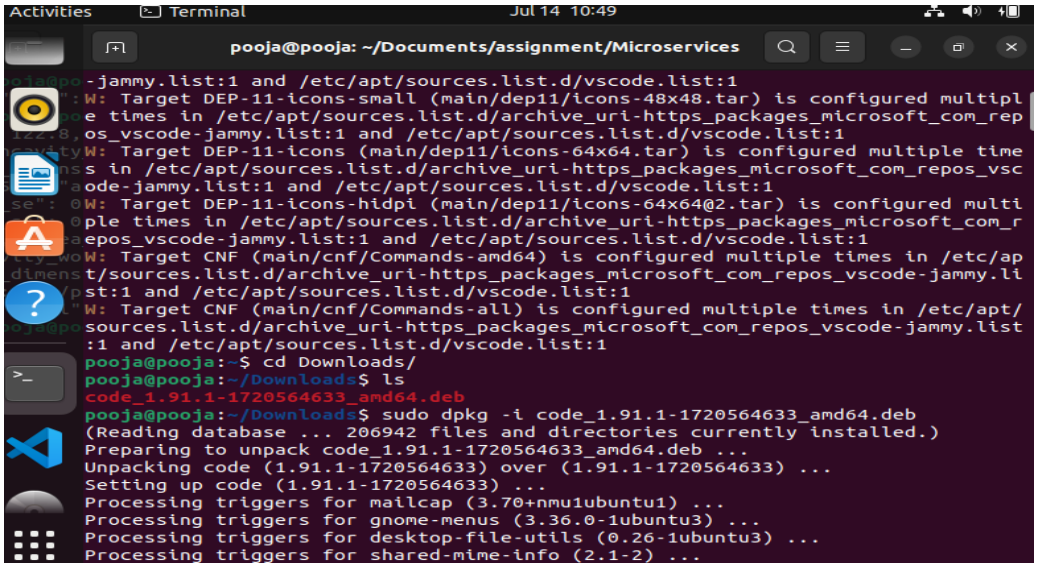
STEP 1: Host an Ubuntu Virtual Machine using Oracle VM Virtual Box.

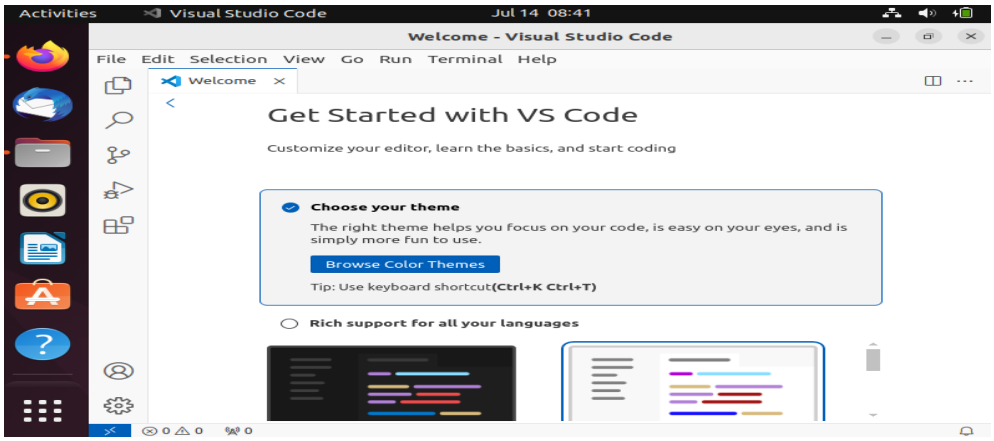



STEP  2: Set up Visual Studio code on Ubuntu VM.

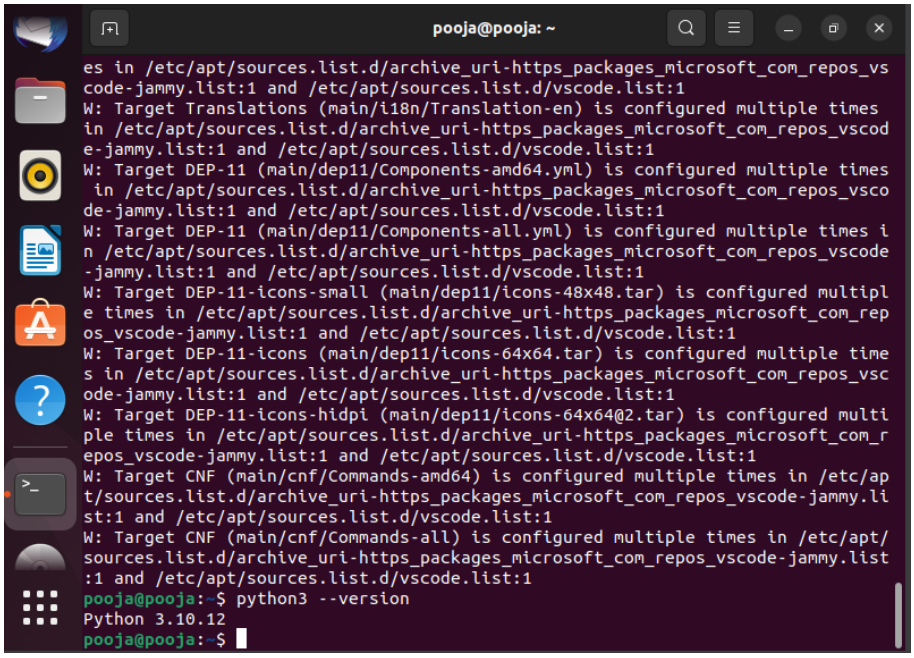


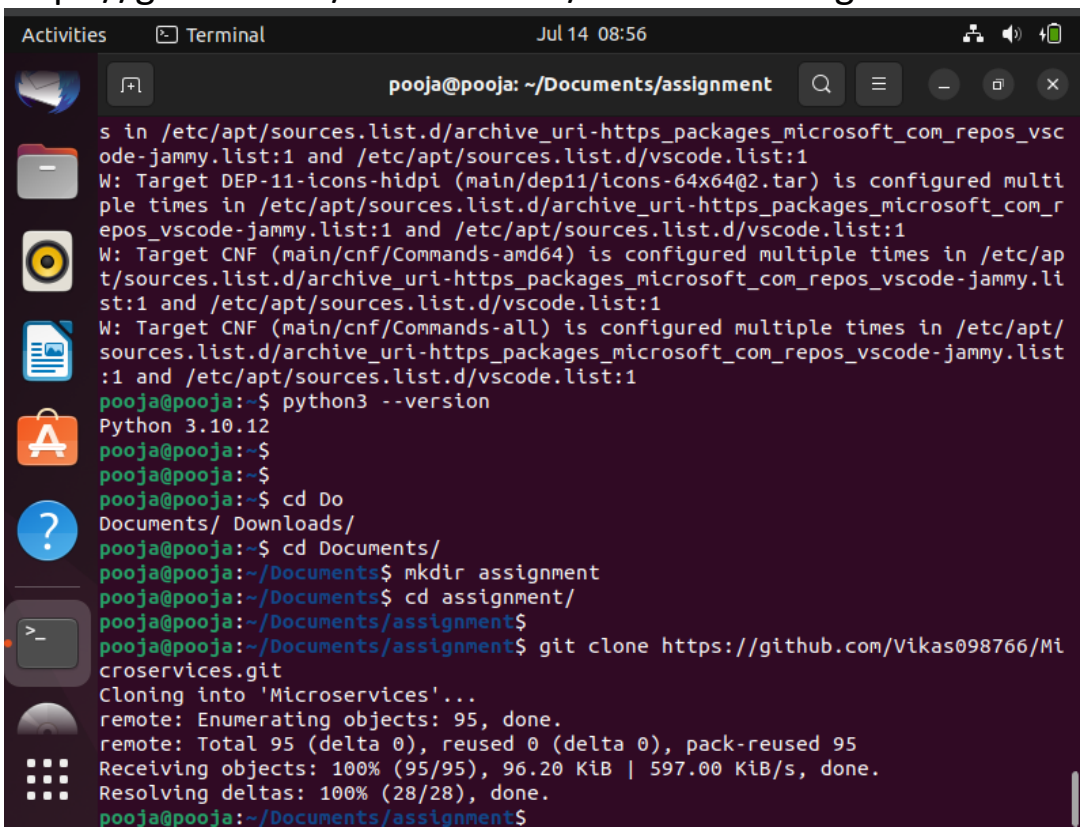



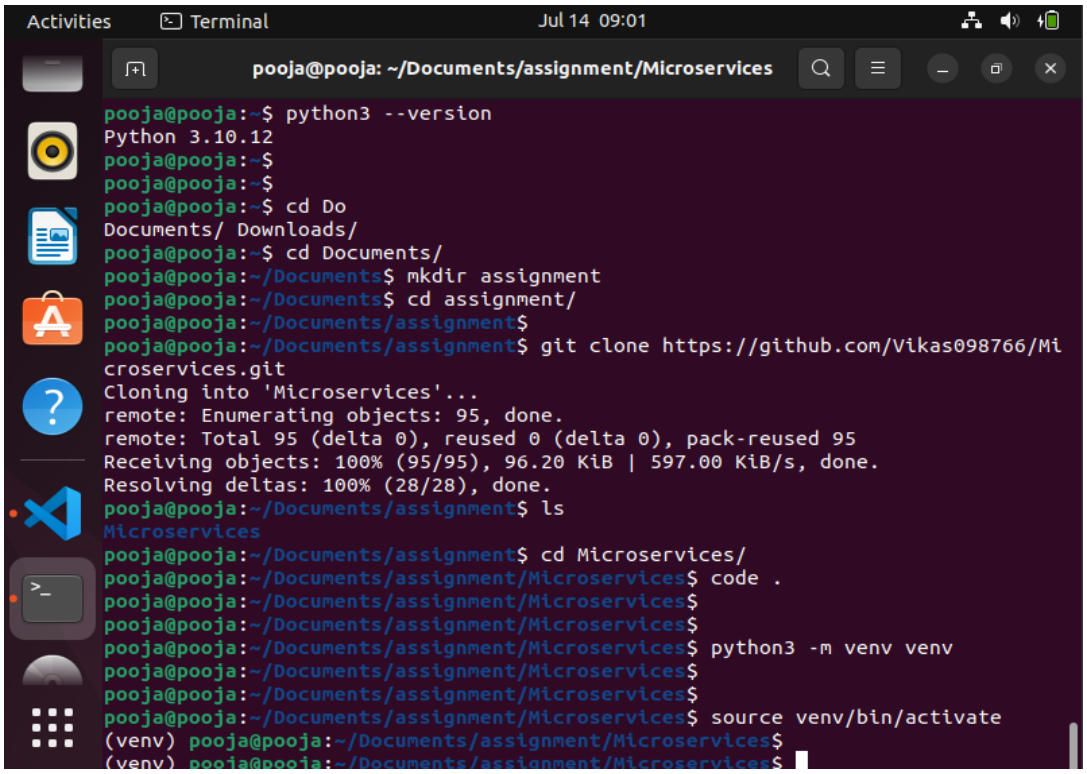
STEP 3: Set up Python.

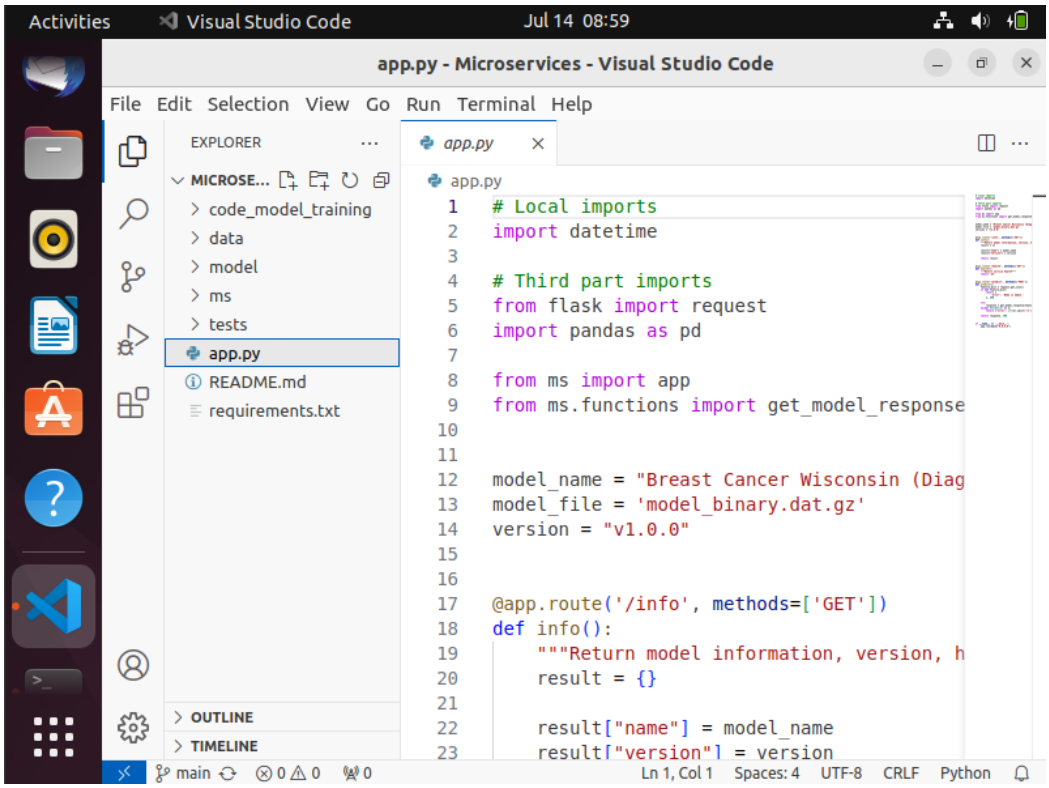



STEP 4: Clone this Github repository - https://github.com/Vikas098766/Microservices.git

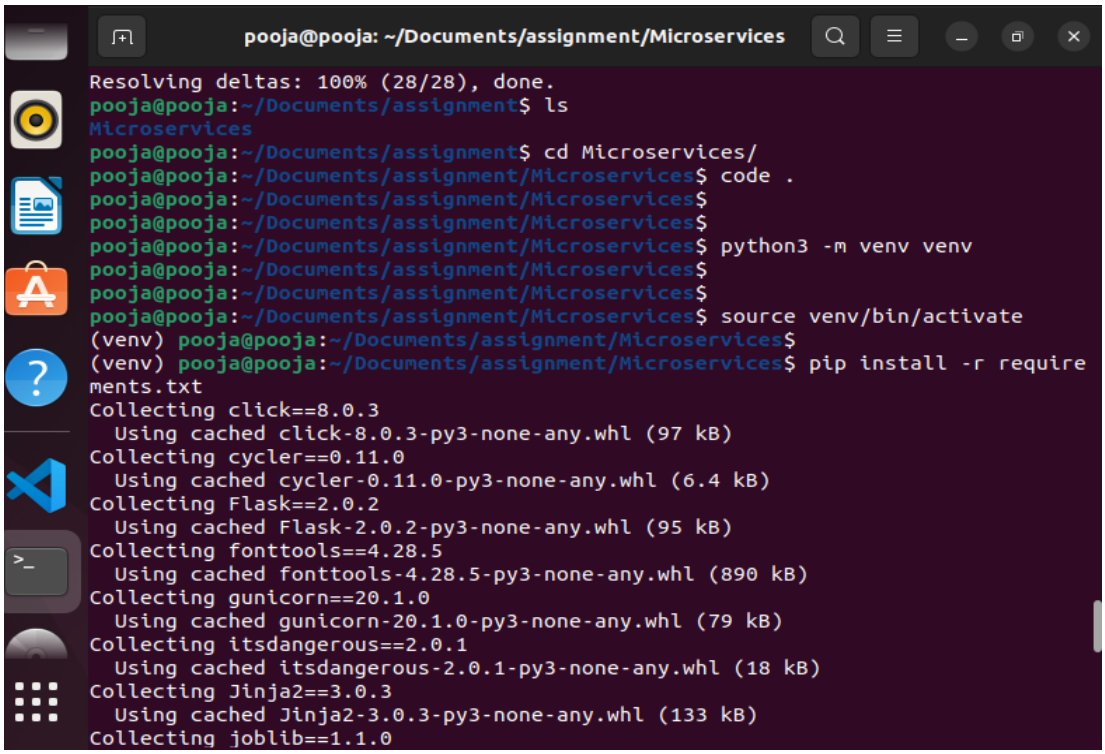


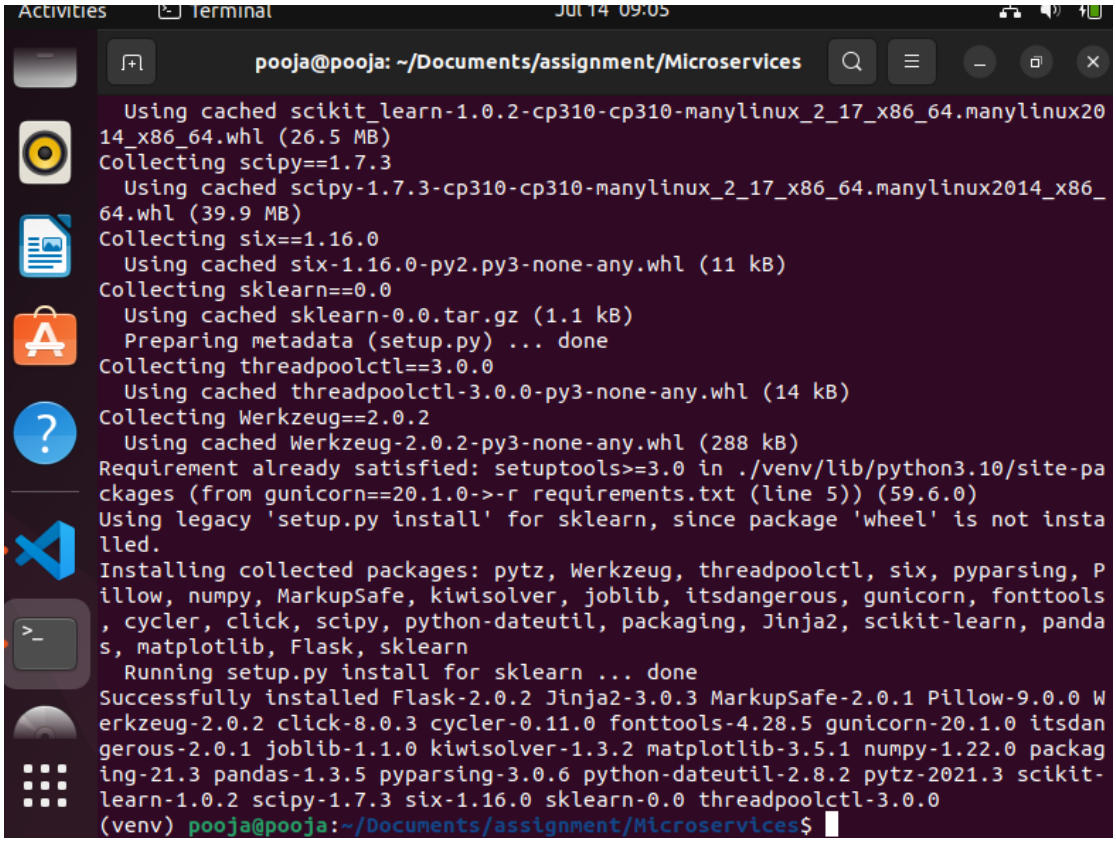
STEP 5: Create a Virtual Environment.



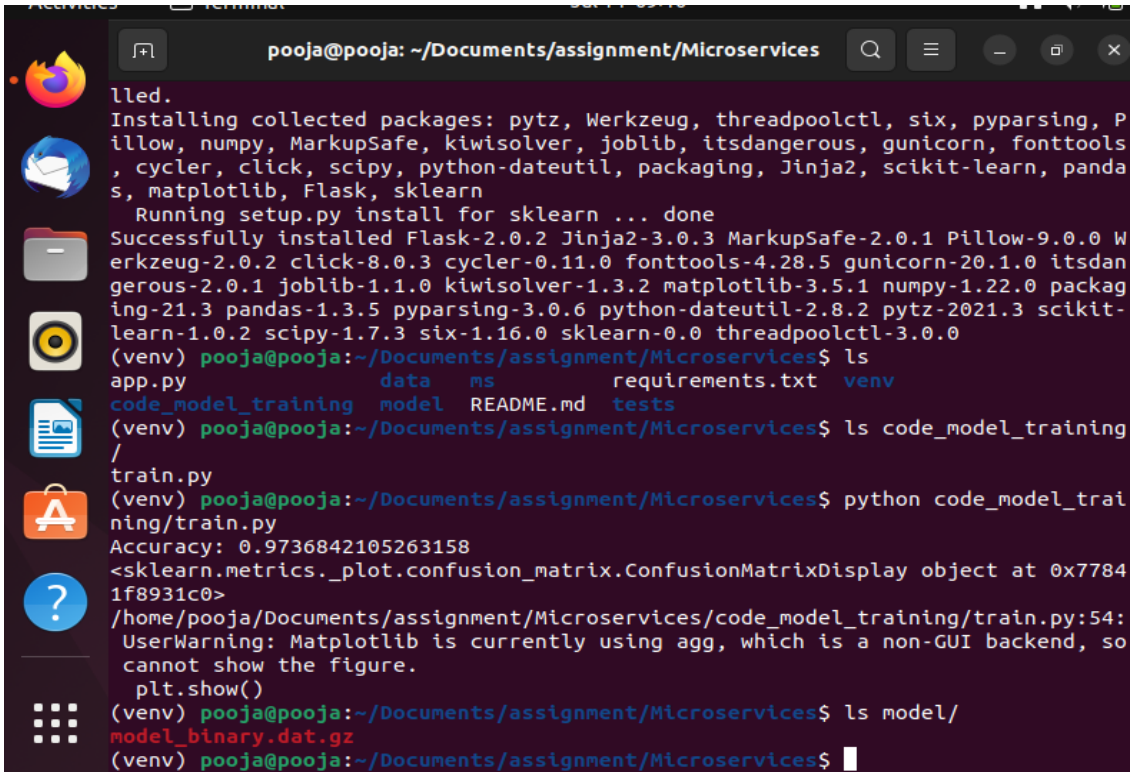



STEP 6: Install the dependencies from requirements.txt file.

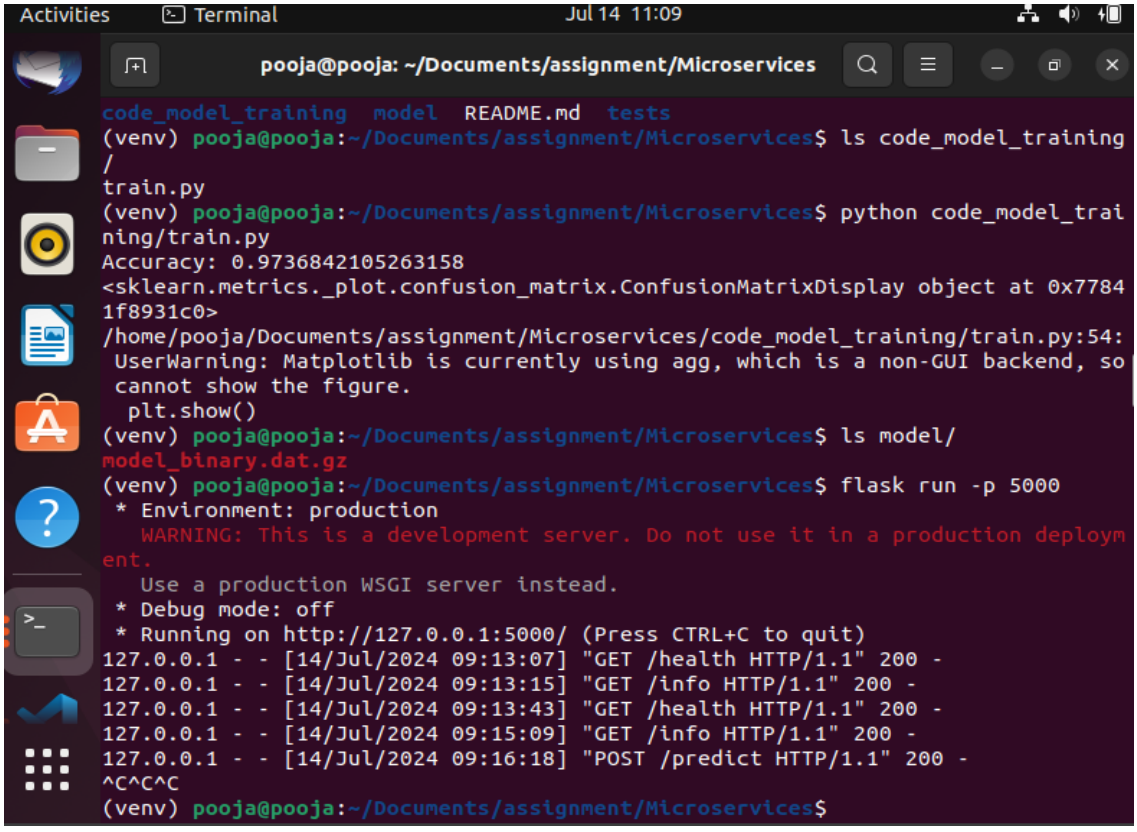


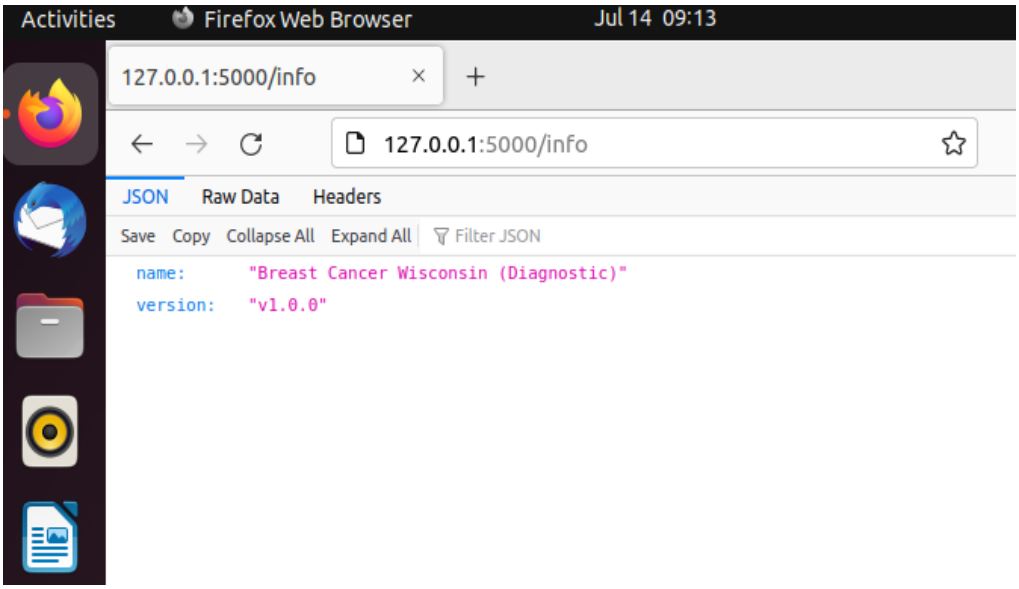
STEP 7: Train and save the model

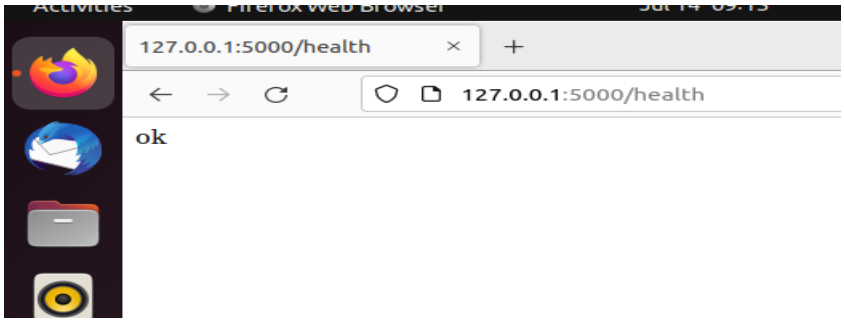


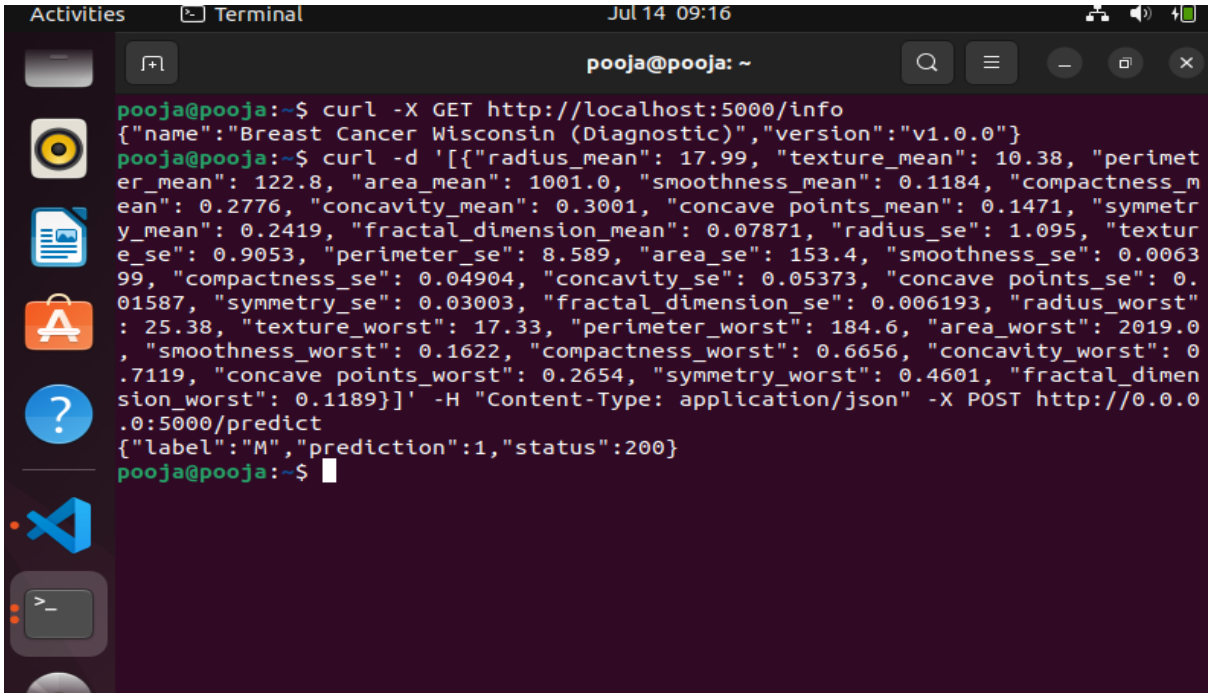

STEP 8: Test the Flask web application.



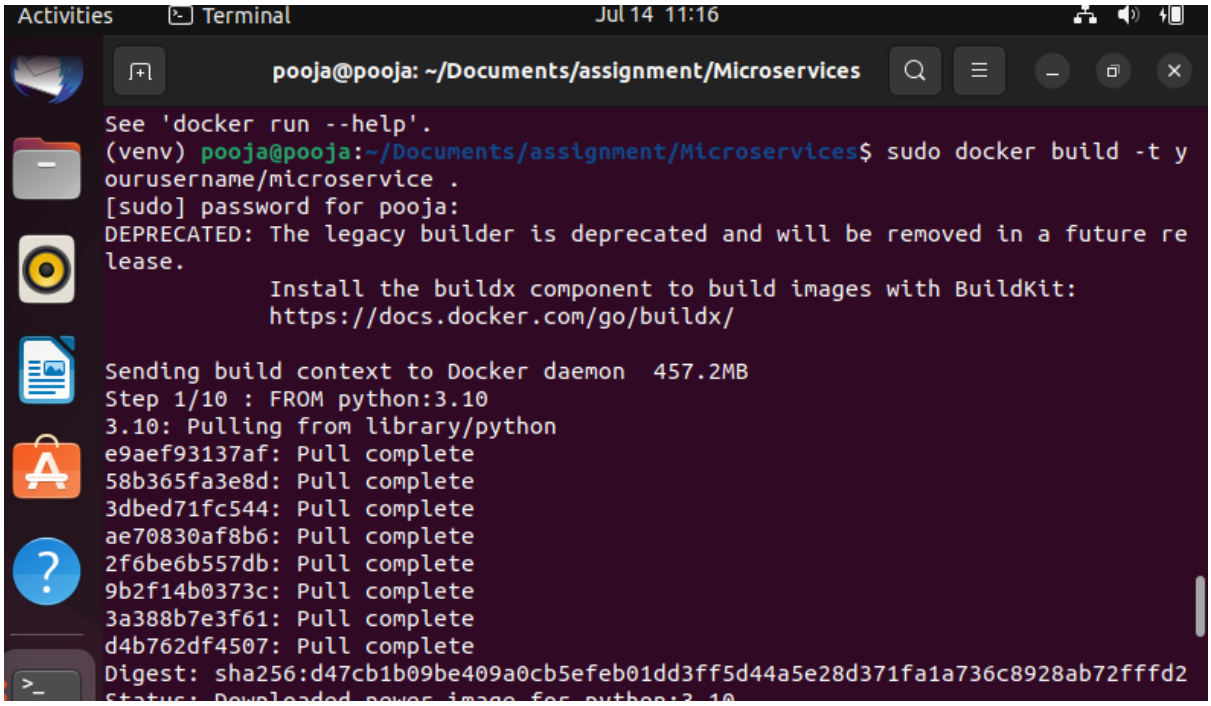
STEP 9: Test the application and make predictions using the example calls available in the folder /tests.

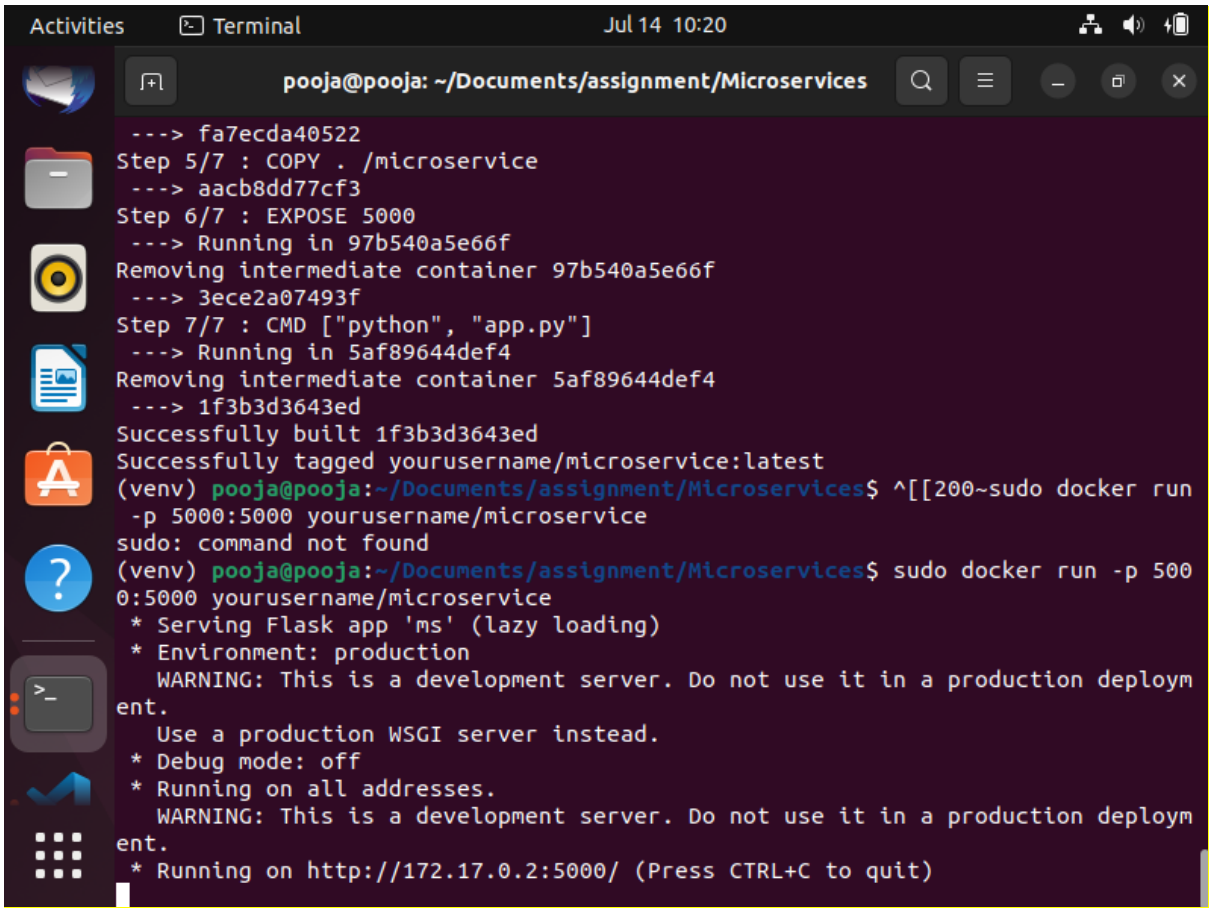


STEP 10: Create a docker image containing everything needed to run the application.



STEP 11: Run the containerized application as a prediction service and test it locally by passing some example calls and get the prediction.