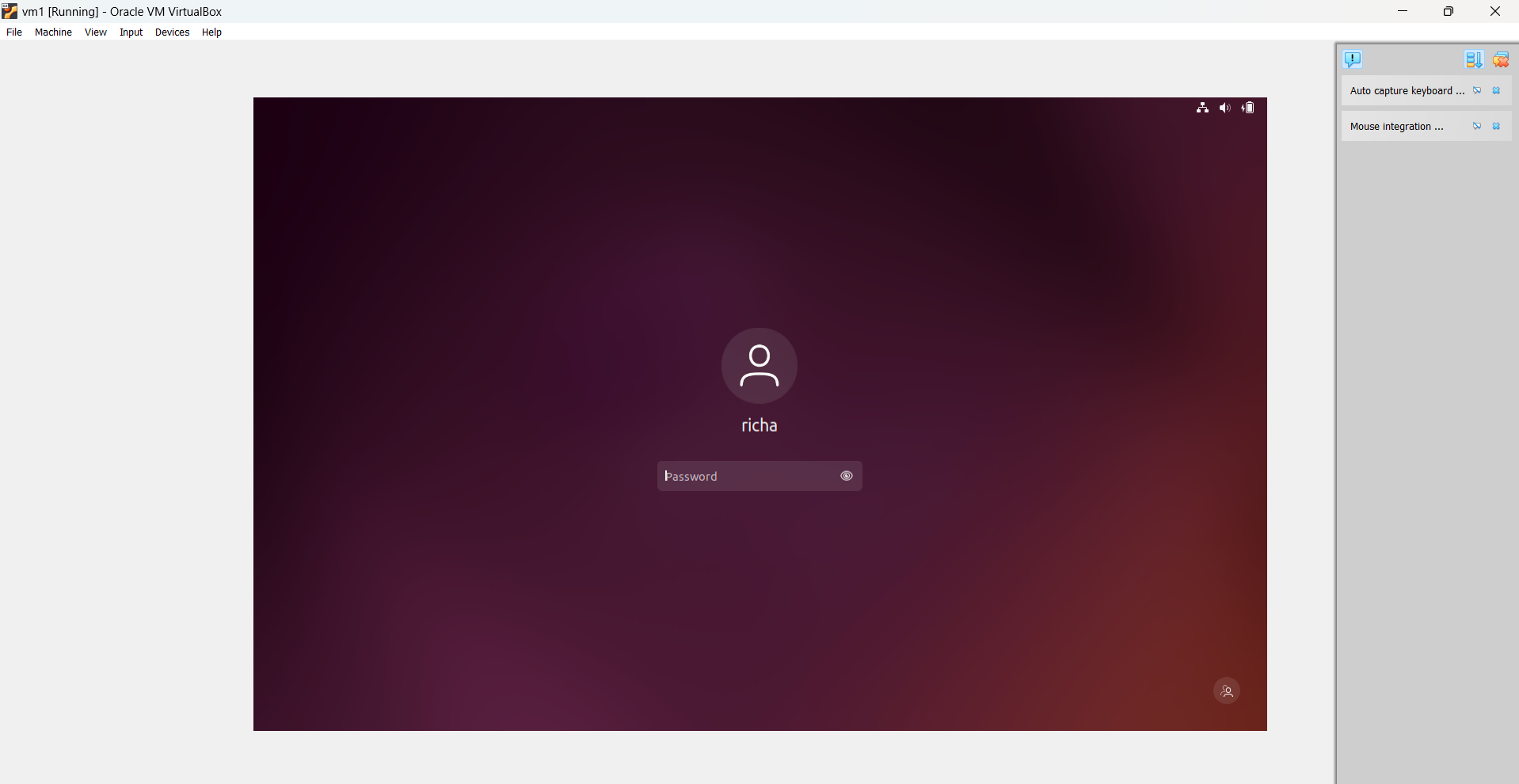
1.Host a Ubuntu Virtual Machine using Oracle VM Virtual Box. (5 marks)

<https://www.virtualbox.org/> download the virtual box



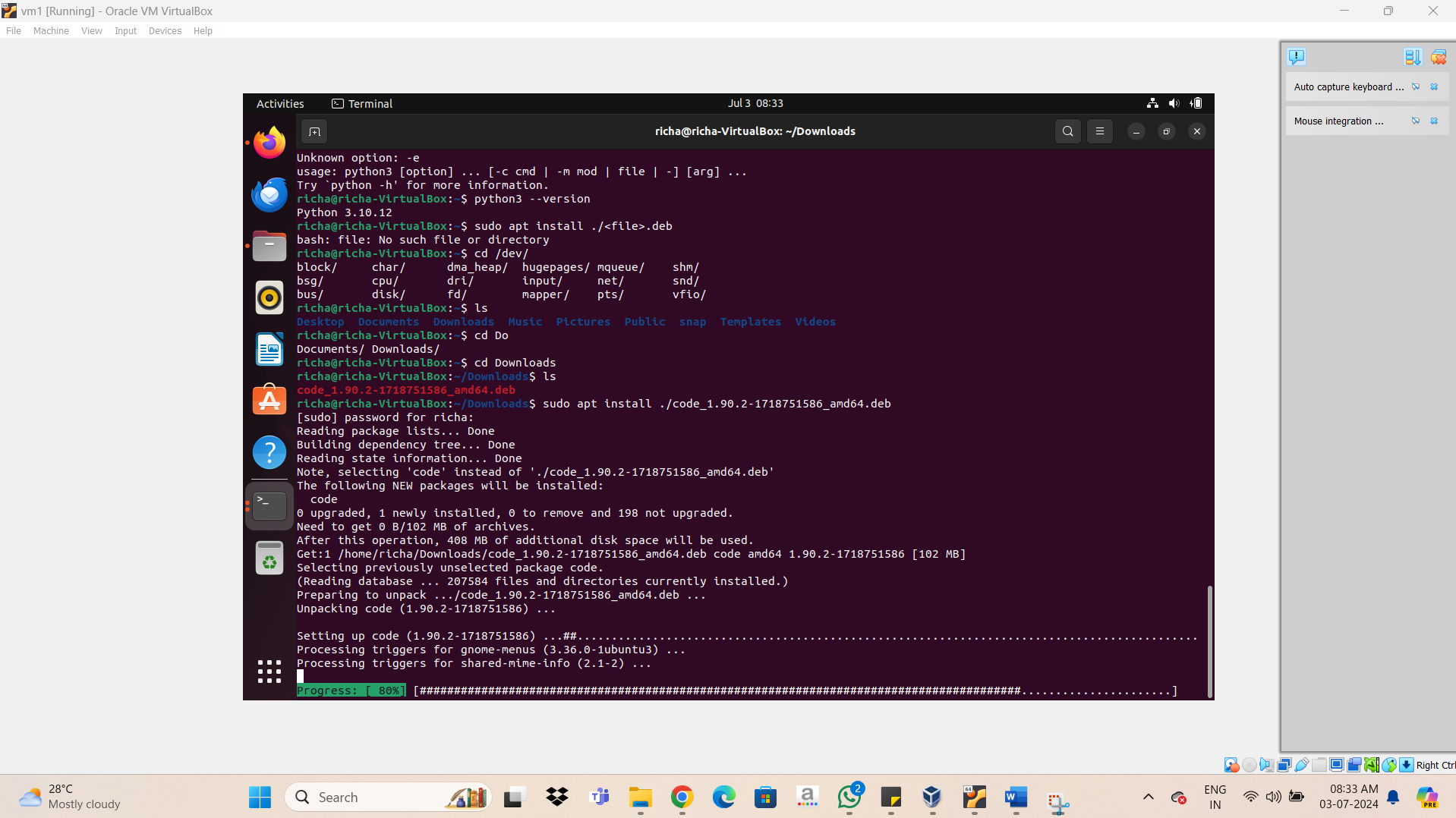
I have used image ubuntu-22.04.4-desktop-amd64

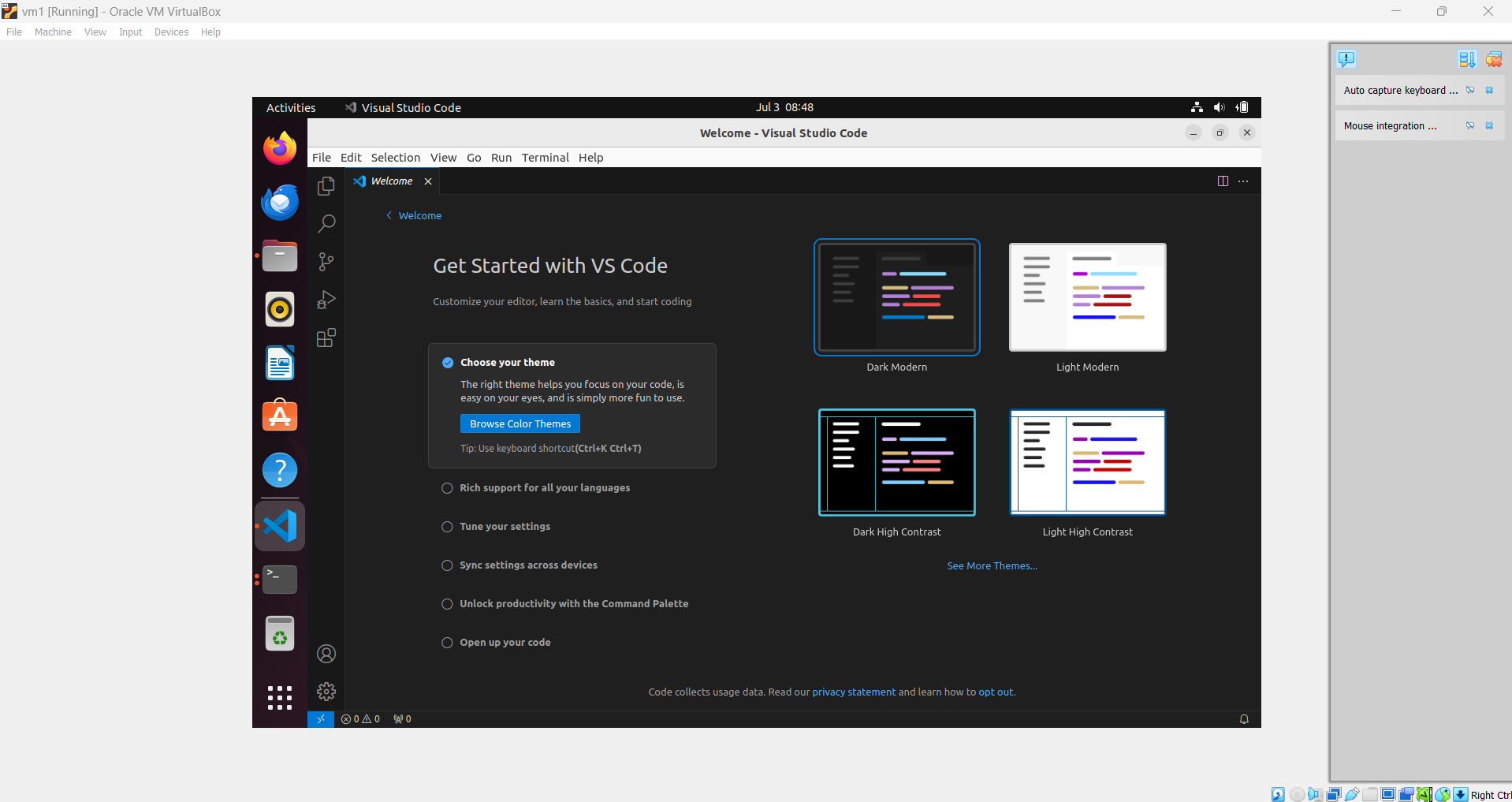


2.Set up Visual Studio code on Ubuntu VM. (5 marks)

Download from <https://code.visualstudio.com/download>

sudo apt install ./<file>.deb





3.Set up Python. (5 marks)

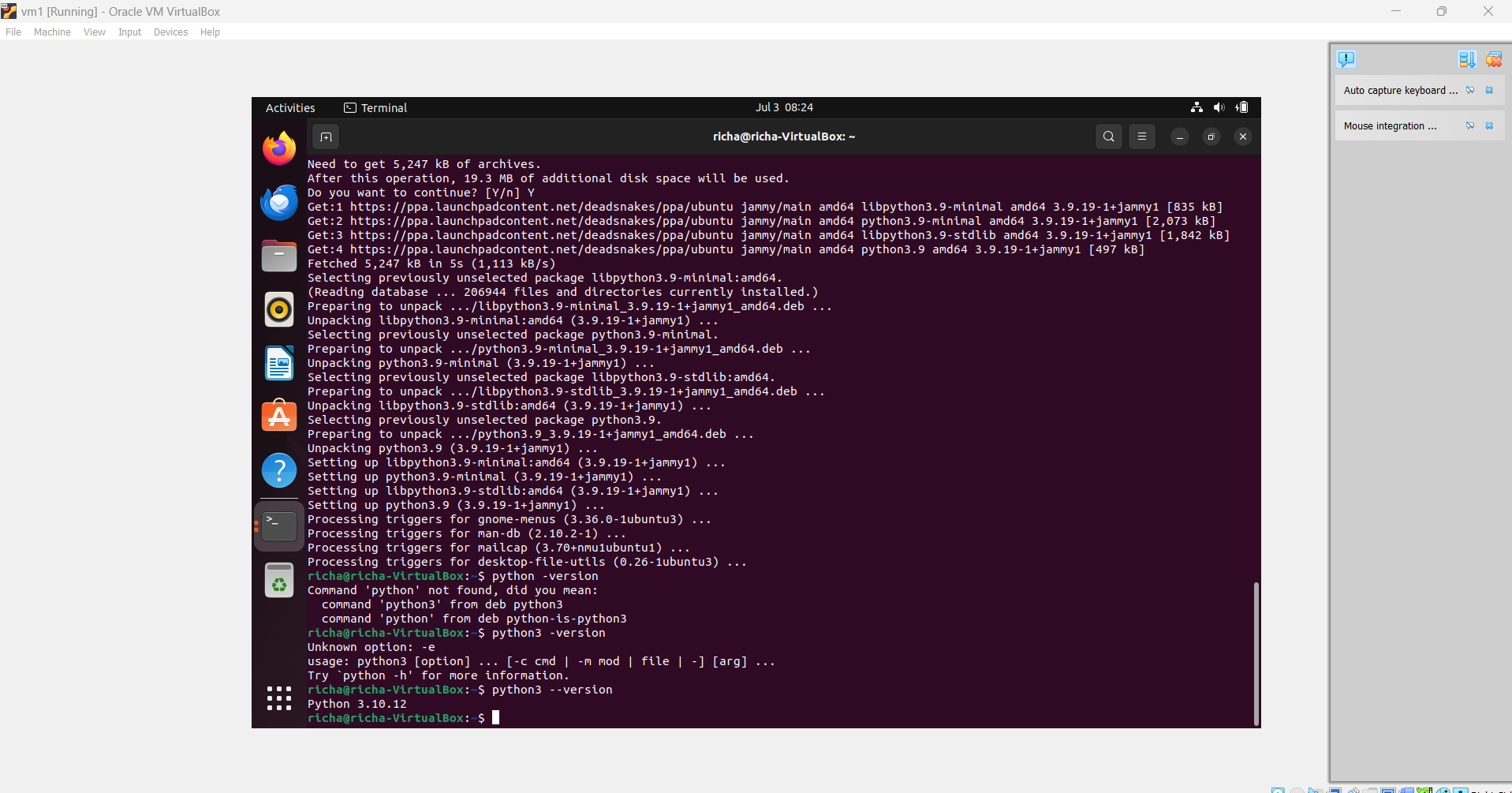
Command 1: sudo apt update

Command 2: sudo apt install software-properties-common

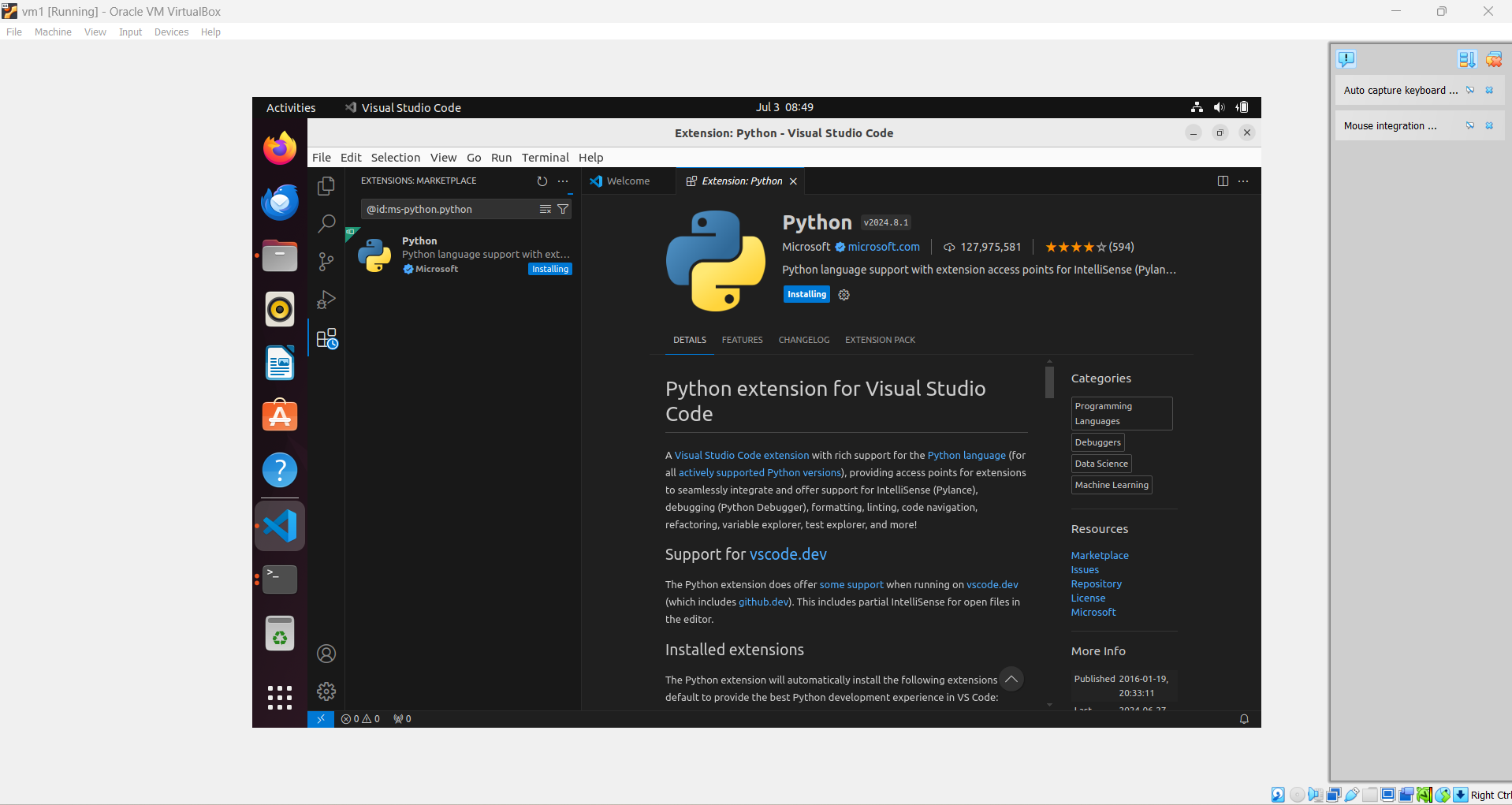
Command 3: sudo add-apt-repository ppa:deadsnakes/ppa

Command 4: sudo apt install python3.9

On ubuntu



On vscode



4.Clone this Github repository https://github.com/Vikas098766/Microservices.git(1 mark)

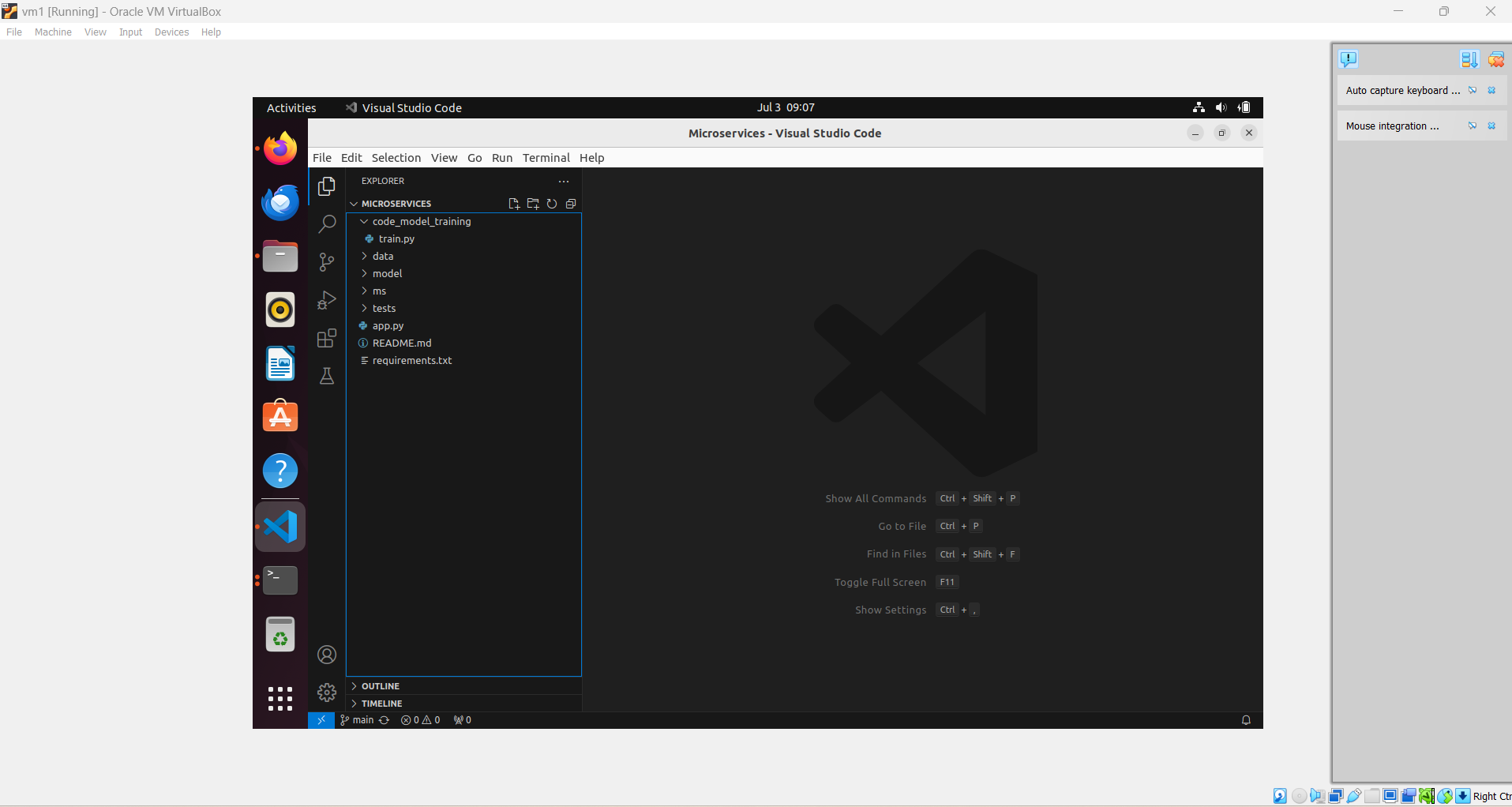
apt-get install git

add-apt-repository ppa:git-core/ppa

apt-update

apt install git

I have cloned it in Vs code



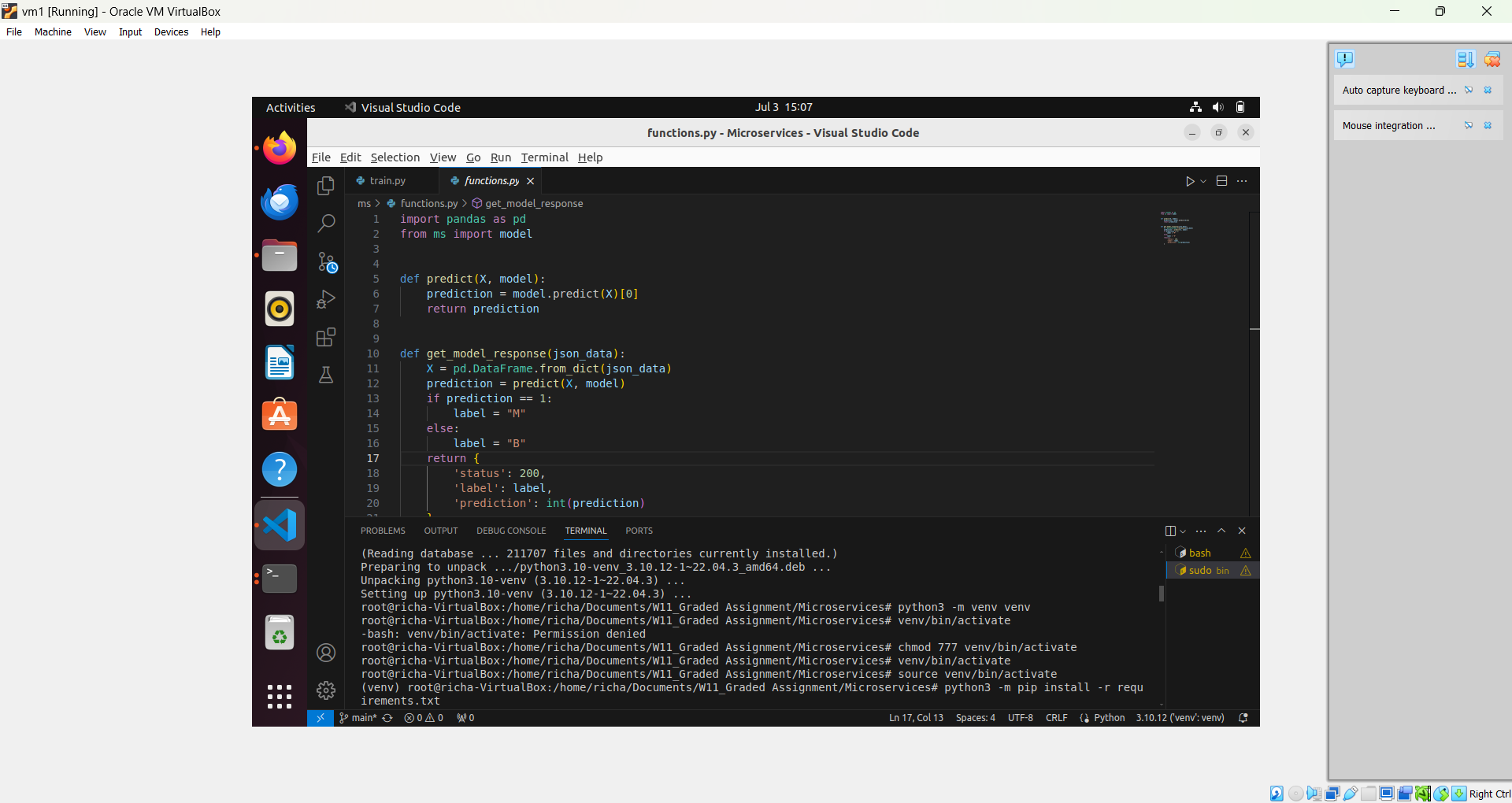
5.Create a Virtual Environment. (1 mark)

Commands:-

apt install python3.10-venv

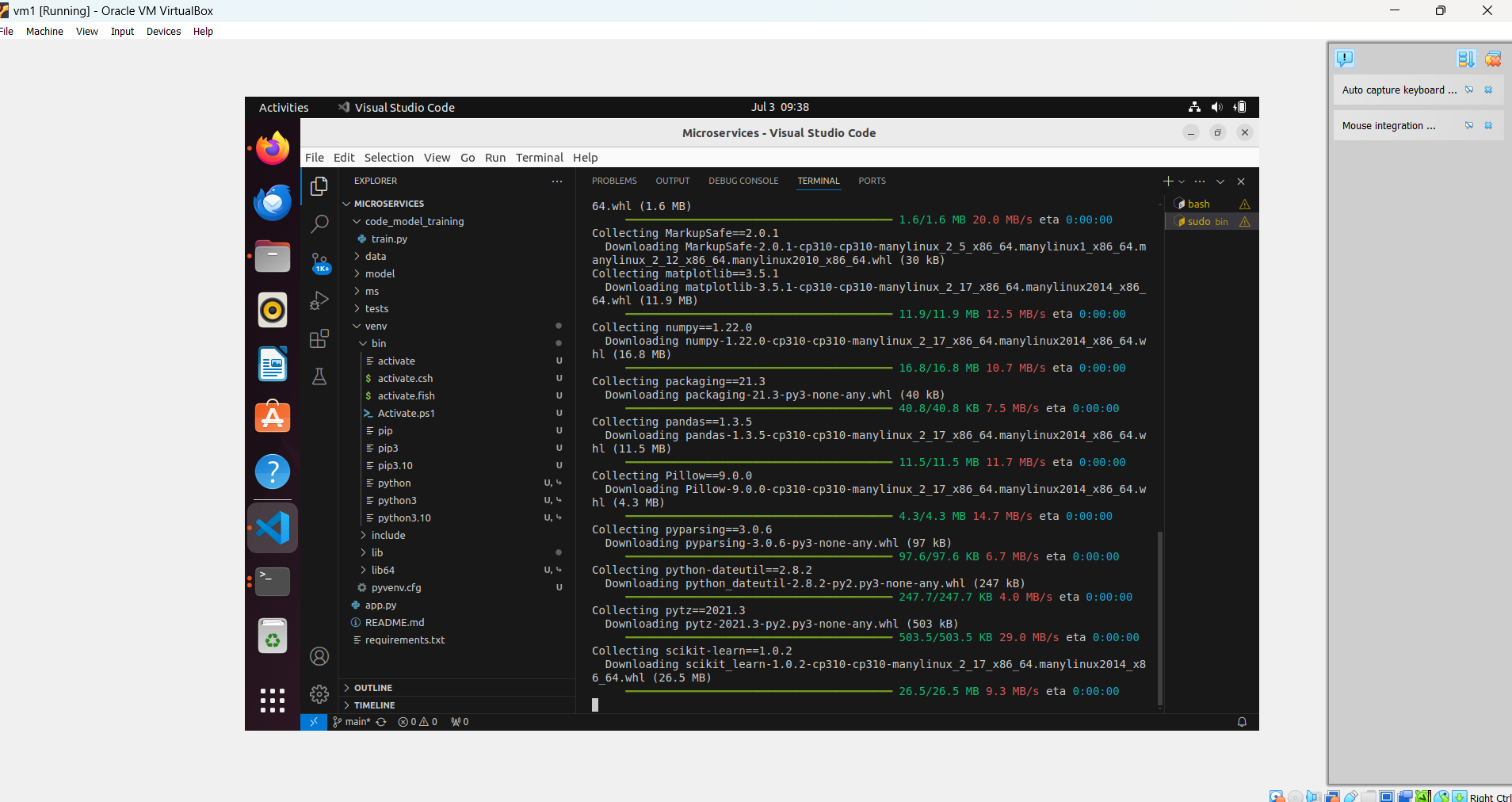
python3 -m venv venv

source venv/bin/activate



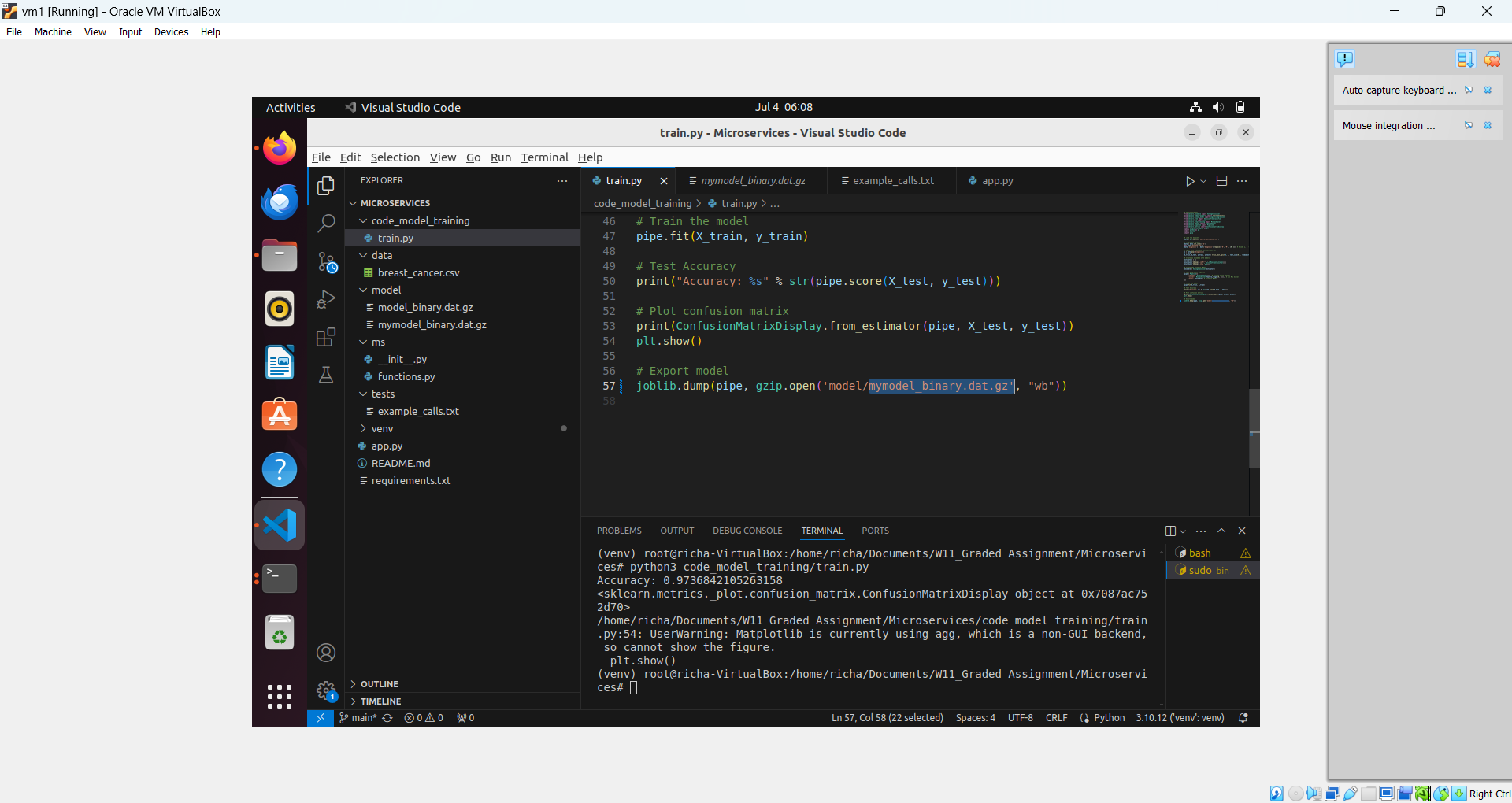
6.Install the dependencies from requirements.txt file. ( 1 mark)

python3 -m pip install -r requirements.txt



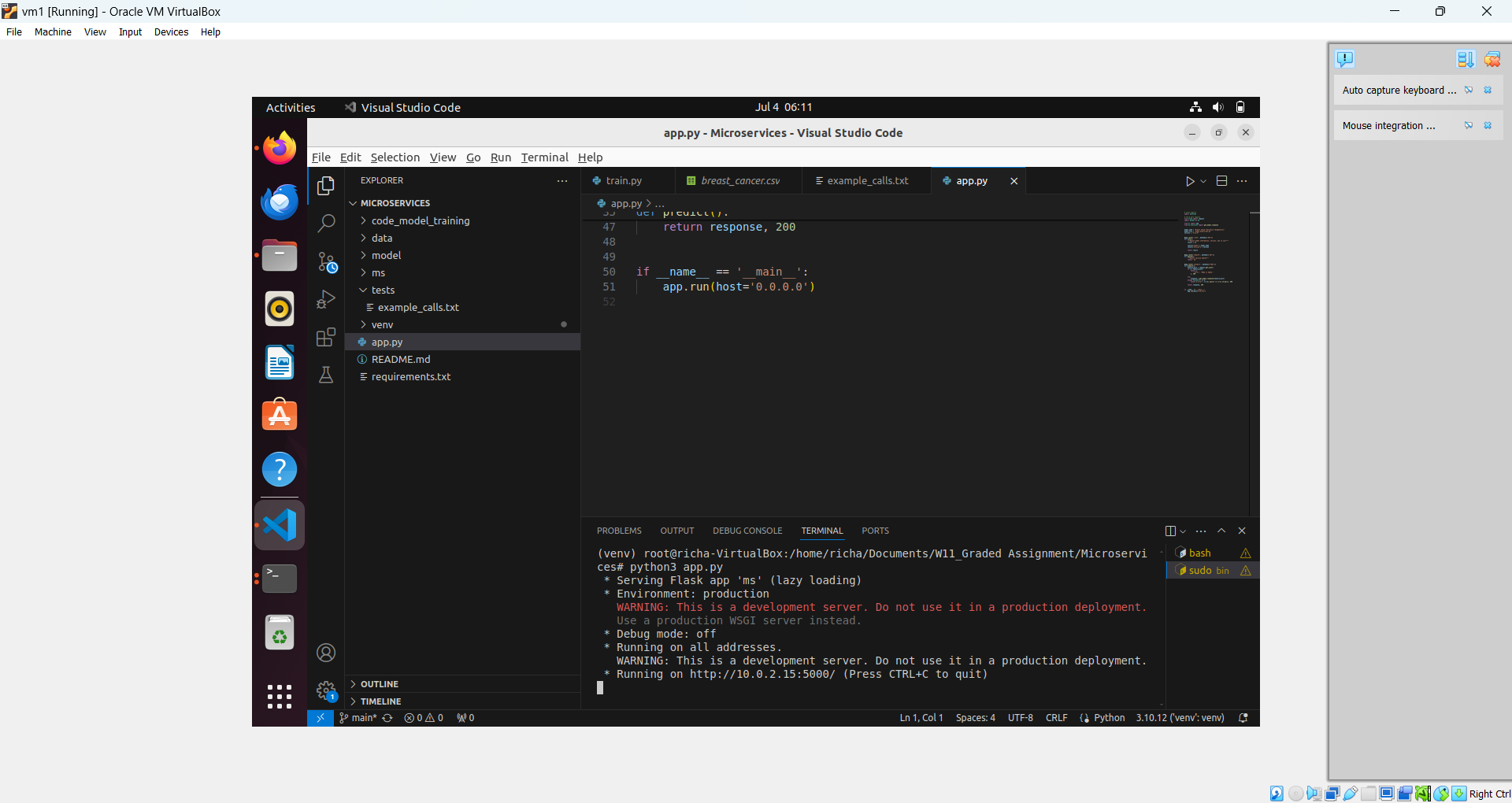
7.Train and save the model. (2 marks)

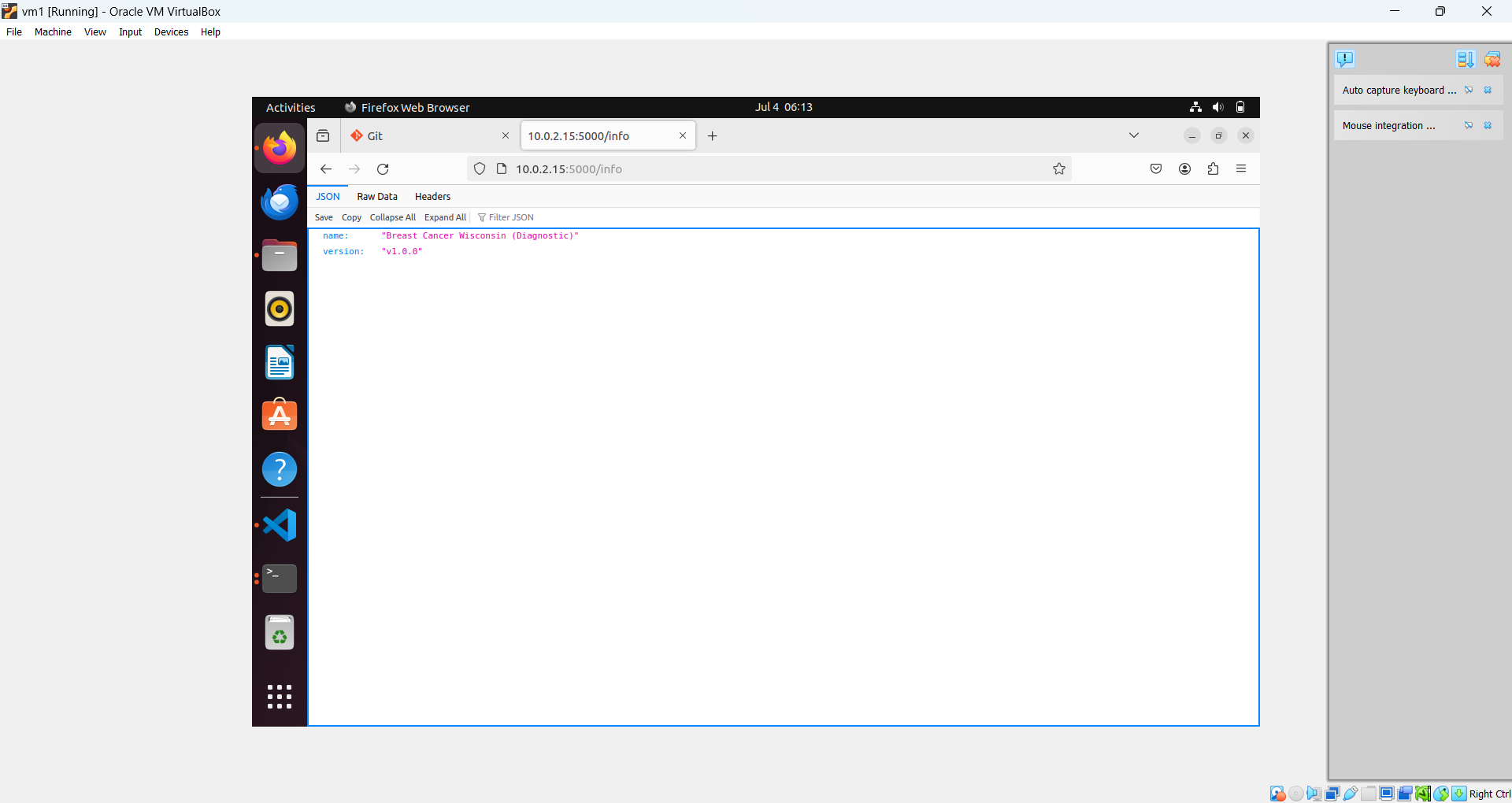
python3 code\_model\_training/train.py

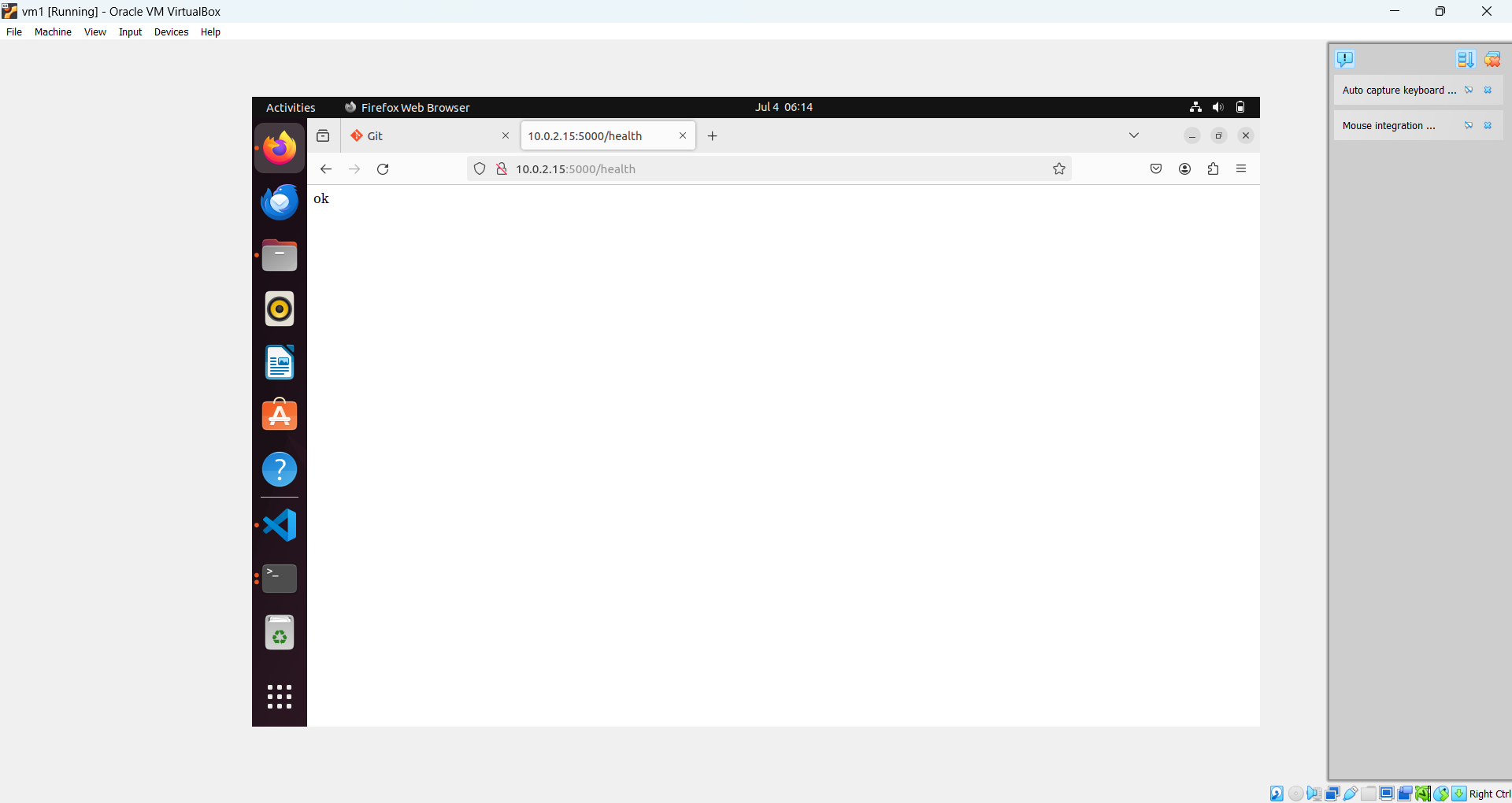


8.Test the Flask web application. (5 marks)

python3 app.py



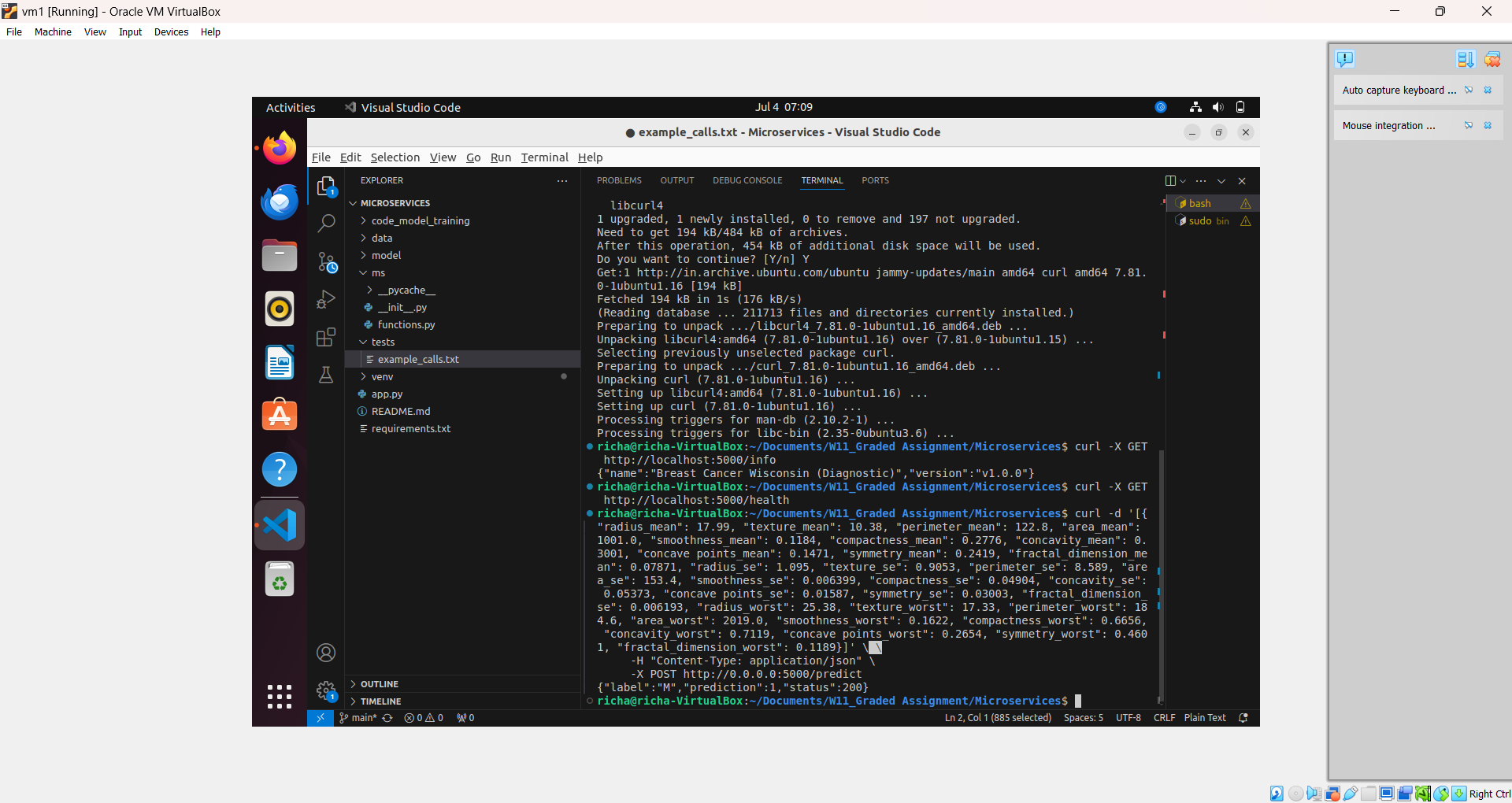




9.Test the application and make predictions using the example calls available in the folder/tests.(5 marks)

sudo apt install curl

run curl commands



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

sudo apt install docker.io

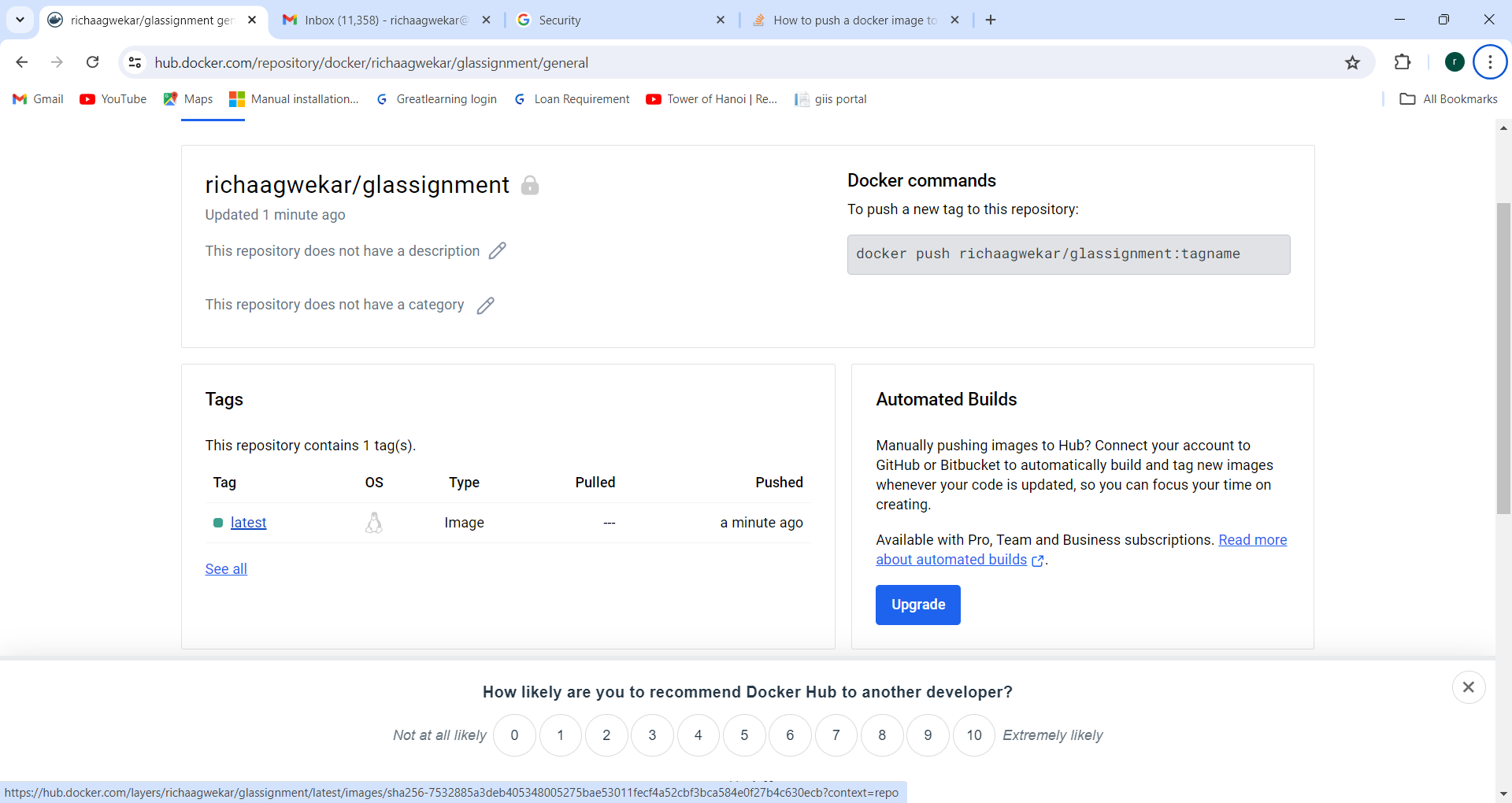
created docker image

push it docker hub



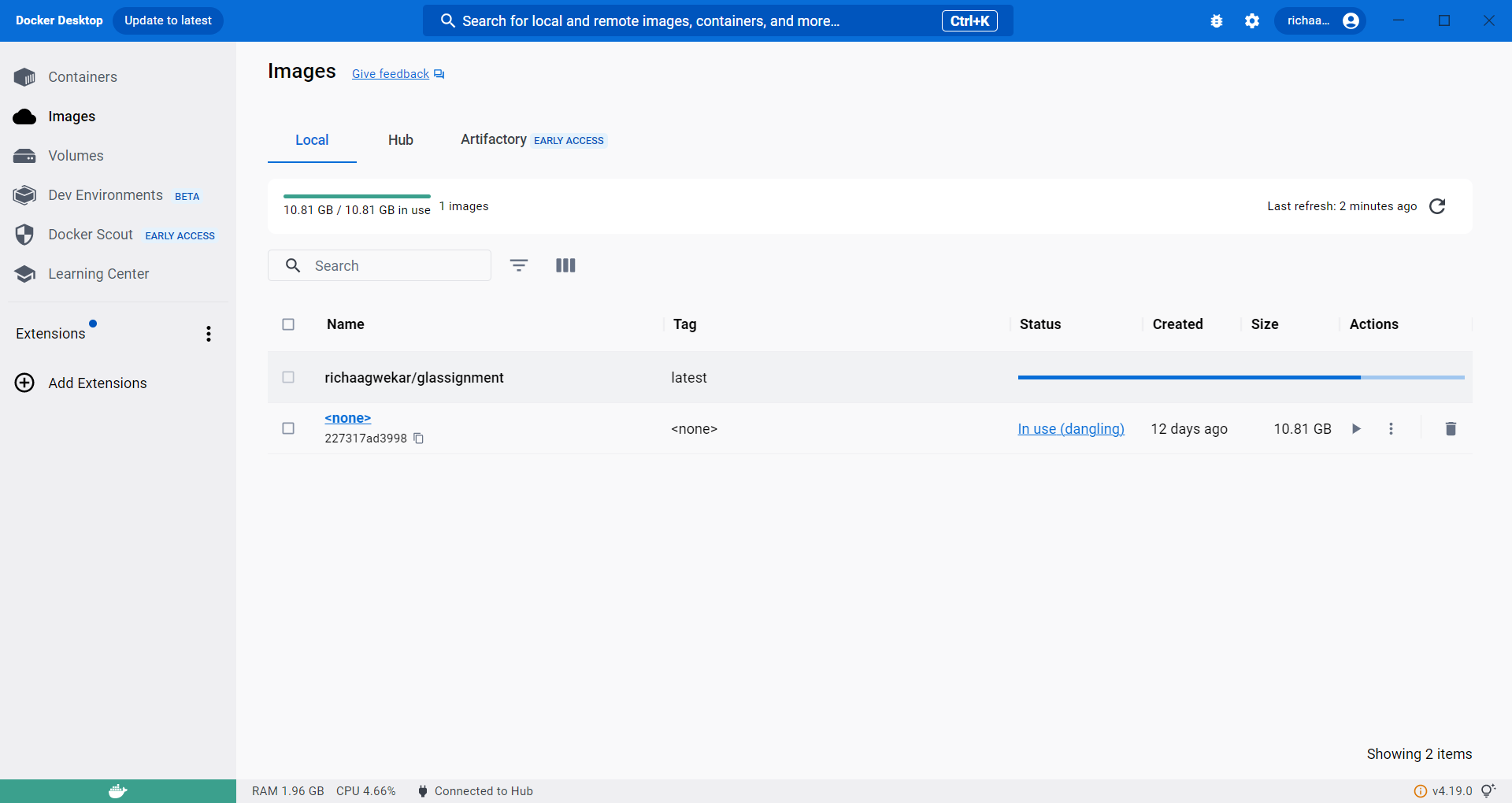
Pushed into private docker hub

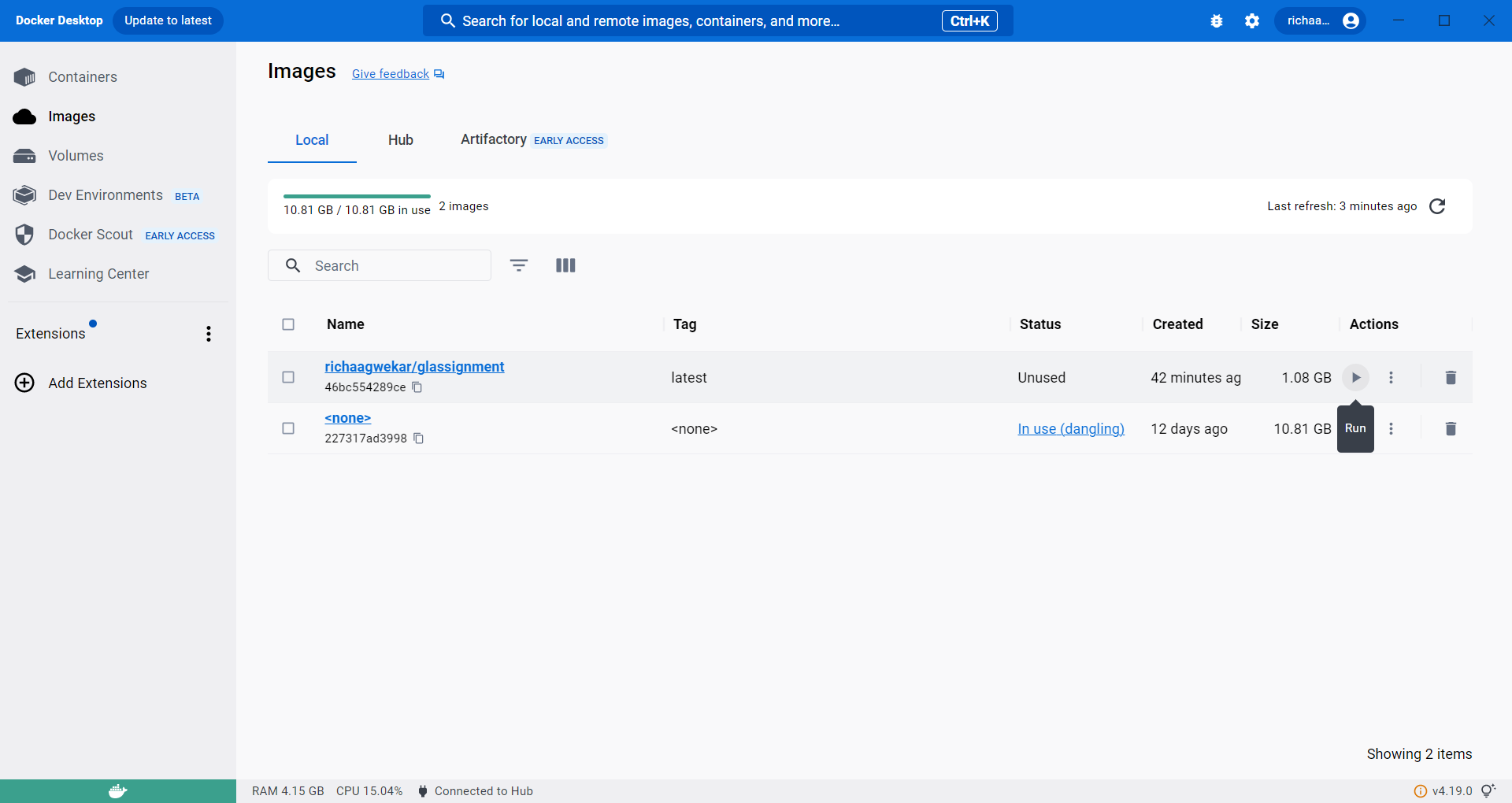
Git hub : [GitHub - RichaAgwekar/RichaAgwekar-W11\_Graded-Assignment](https://github.com/RichaAgwekar/RichaAgwekar-W11_Graded-Assignment)

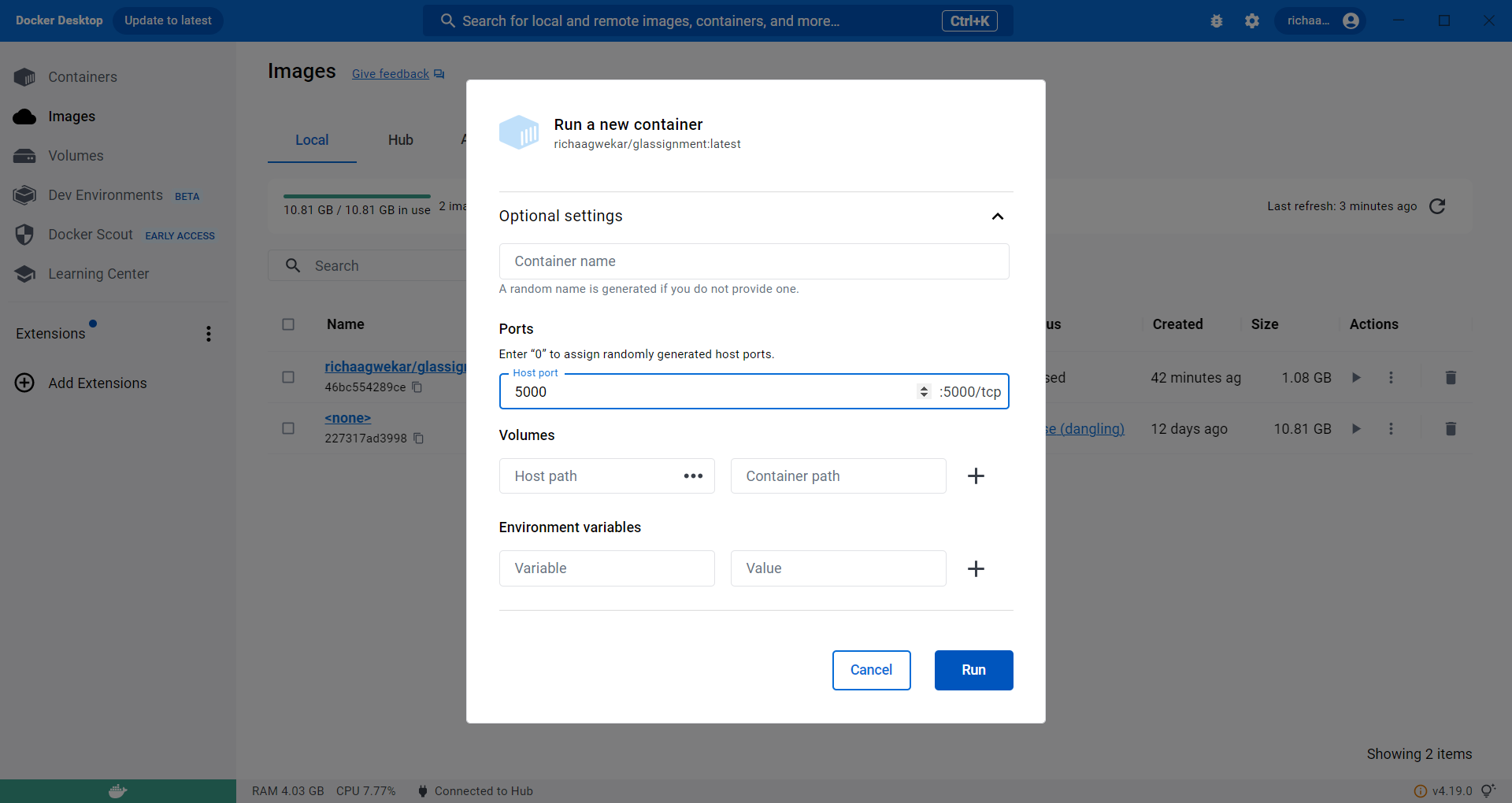


11.Run the containerized application as a prediction service and test it locally by passingsome example calls and get the prediction. (10 marks)

Pulling image locally









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