National College of Ireland

Comparative Study of RL Algorithms for Resource Optimization Scheduling in Kubernetes

MSc Research Project
Cloud Computing

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Configuration Manual

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1 AWS EC2 Instance

To run the Python3 files it is mandatory to launch the EC2 ubuntu instance. It can run on all linux platform. But the command changes according to the linux Flavour.

Follow the below steps to launch the EC2:
1. Login to AWS console.

2. Then Go to the EC2 instance service.

3. Click on Launch Instances.

4. So showing in the Fig. 1 it will open the window.

5. Just launch the EC2 instance.

So firstly launch the EC2 instance.

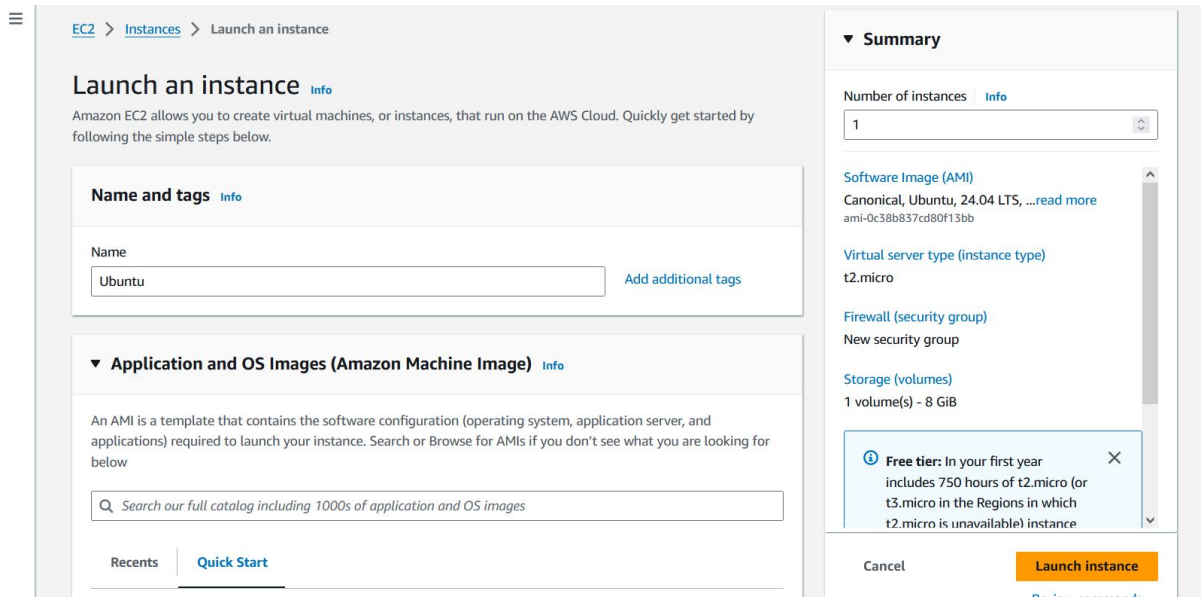

Figure 1: Ubuntu Instance Launch From Ec2

So once instance launch then you will need below details of the instance for login. Make sure the port 22 can be open in the Security Group. Security group should be look like added Fig. 2.

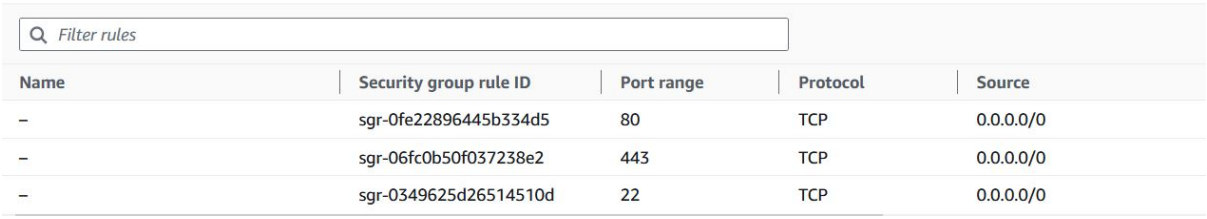

Figure 2: Security Group

2 Instance access with putty

1. To take the instance access we need putty tool on the machine.

2. Putty tool looks like which shows in the Fig. 3.

3. Then we need to take the access to the Ec2 instance for that we need the IP address of the instance.

4. The Fig. 4 shows the IP address and that needs to put in the putty.

5. Then take the access to the putty. It will show the terminal as shown in the Fig. 5.

6. Then add all the files on the terminal.

7. Then run the requirements.txt. For that below is the command.

pip install -r requirements.txt

Fig 6. shows the exact output for the command.

(Before installing pip need to run below command.)

apt-get update

8. Then once install all the packges just run below command and that will run the simultaion.
python3 filename.py

References

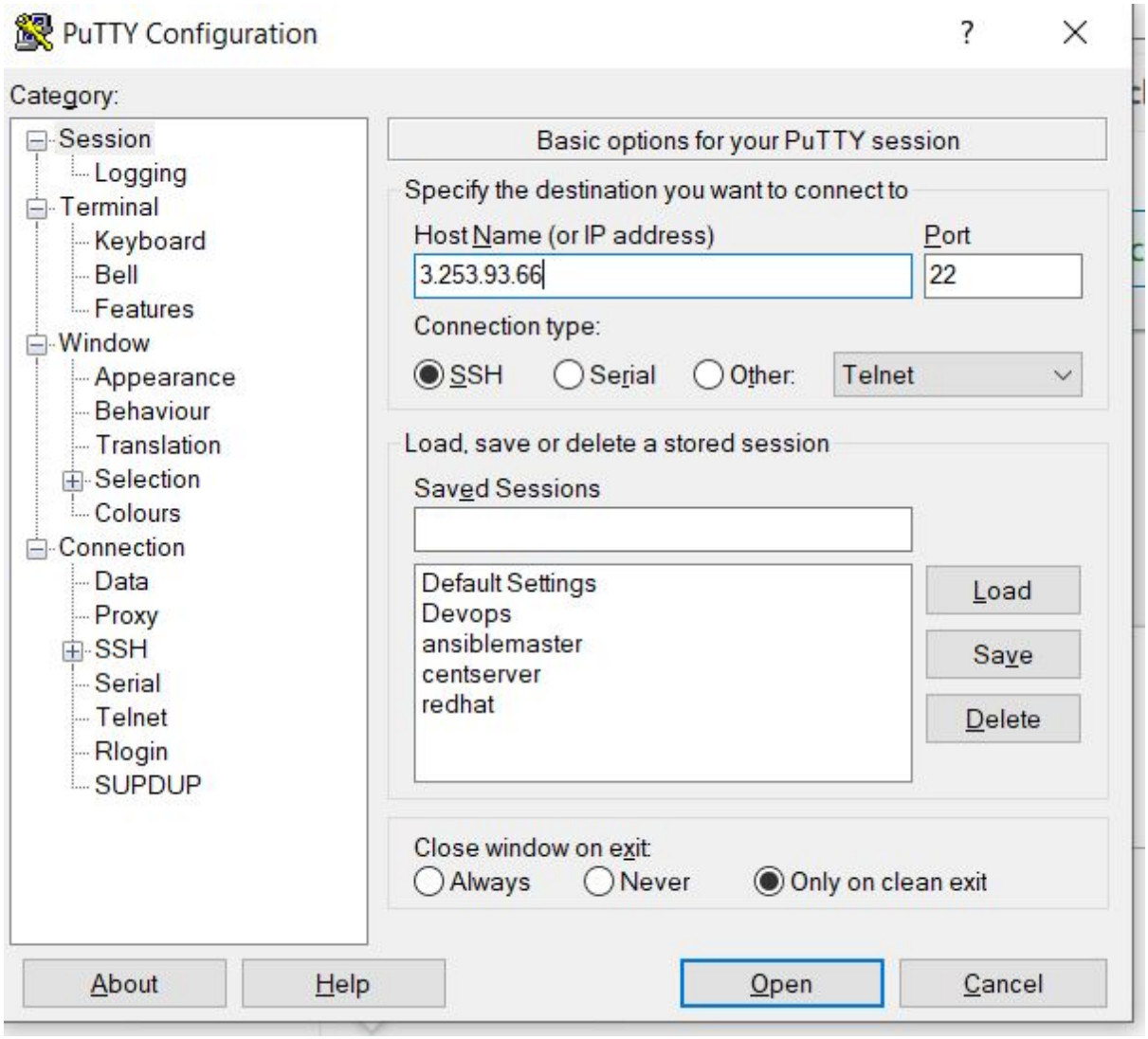

Figure 3: Putty for windows

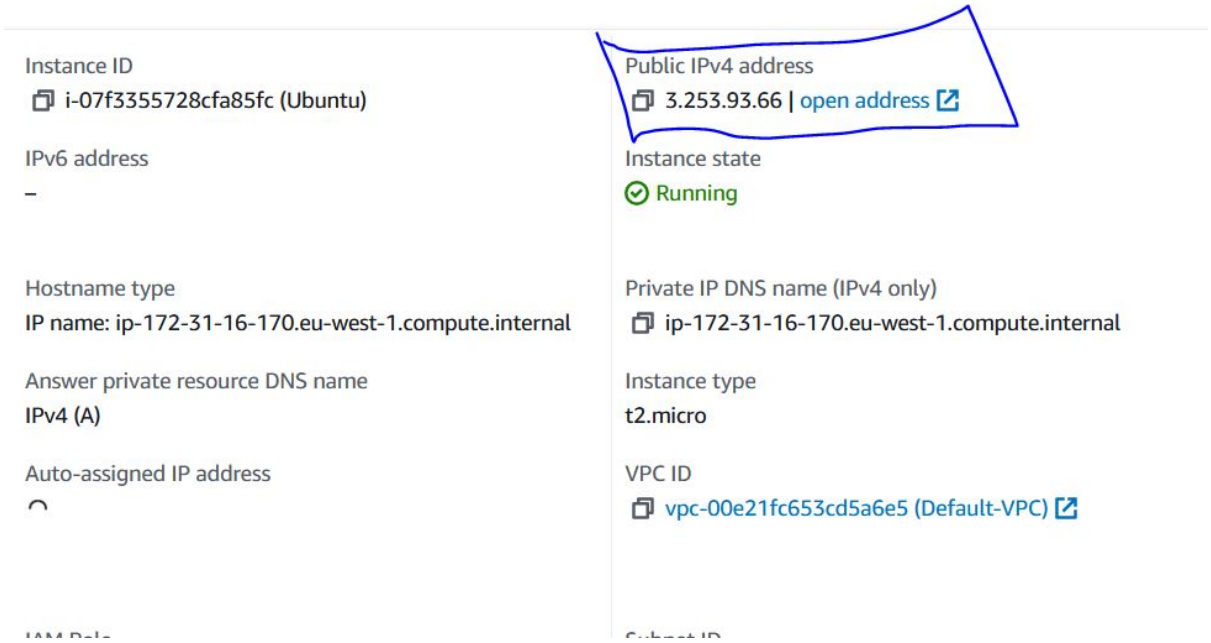

Figure 4: IP address Section

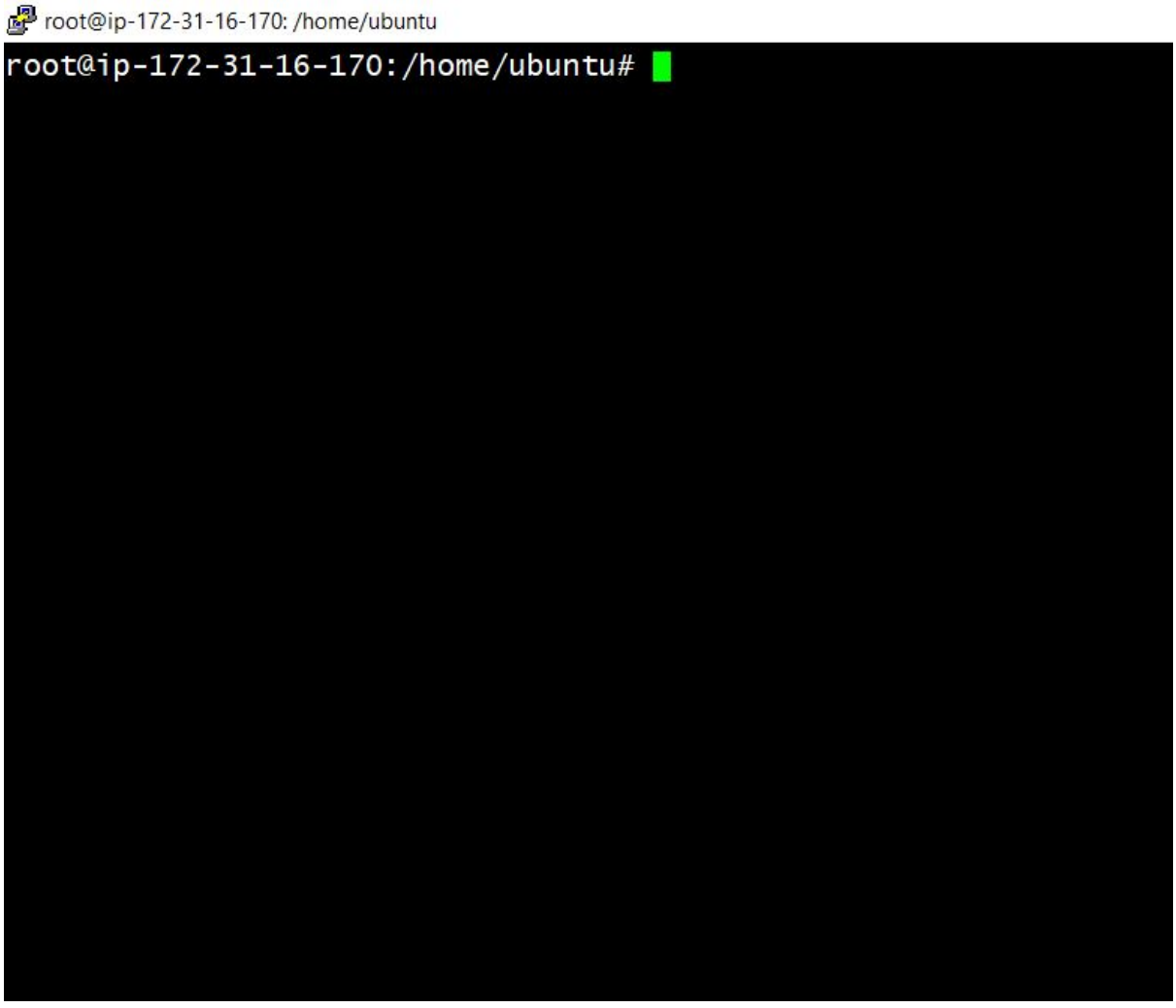

Figure 5: Putty Terminal

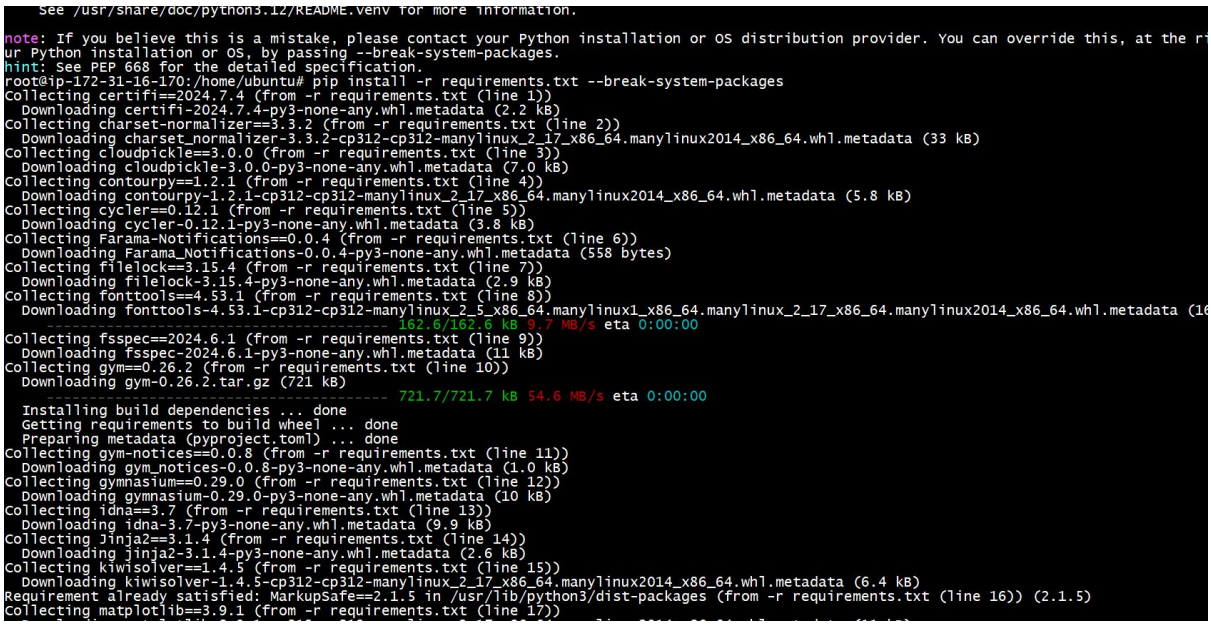

Figure 6: Run requirement.txt file

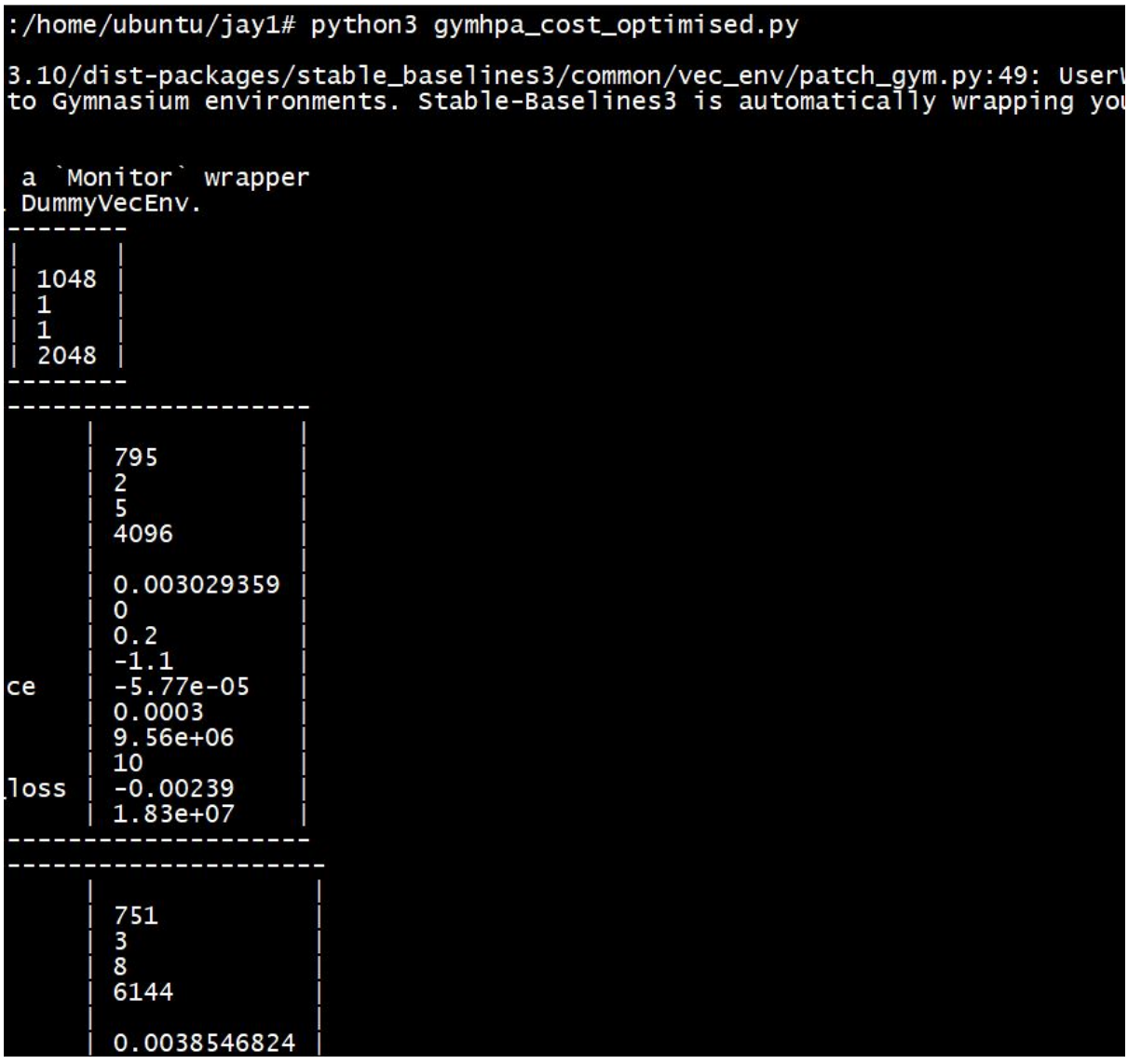

Figure 7: Running Simulation