Intel Developer Cloud

- 1. How to generate ssh key?
 ssh-keygen -t rsa -b 4096 -f \$env:UserProfile\.ssh\id_rsa
 replace \$env:UserProfile with the path of the user name (like C:\Users\rsp)
- 2. How to connect with the instance?
 - Launch a instance in IDC by uploading ssh key
 - Copy the ssh command from "How to Connect?"
 - Paste in here

```
#Install Python* virtual environment:
sudo apt install python3-venv

#Create Python* virtual environment:
python3 -m venv jupyter_env

#Activate Python* virtual environment:
source jupyter_env/bin/activate

#Install JupyterLab in Python* virtual environment:
pip3 install jupyterlab

#Launch JupyterLab in Python* virtual environment:
jupyter-lab

If you face error while entering sudo commands do
sudo apt update
```

- 3. To install conda , follow the steps mentioned in this website https://www.digitalocean.com/community/tutorials/how-to-install-the-anaconda-python-distribution-on-ubuntu-22-04
- 4. You may not get to enter "Y" while uninstalling a package in JupyterLab in IDC. So do pip uninstall pkg-name -y

```
C:\Users\CTS>ssh -J guest@146.152.232.8 ubuntu@100.81.198.224 -L 8889:localhost:8888
channel 3: open failed: connect failed: Connection refused
channel 4: open failed: connect failed: Connection refused
```

For this issue, change the first port number to a different port number like 8989:localhost:8888. Also note that , frequently changing the port number in short period of

time can lead to many active sessions and eventually block you from initiating a new terminal console.

6. To check the CPU utilization of the instance you have launched

sudo apt install htop htop

ubuntu@shiv: ~	- 0	×
<pre>0[79.2%] 1[99.3%] 2[87.5%] 3[99.3%] Mem[Swp[</pre>	4[78.6%] 8[78.9%] 12[78.9%] 16[78.8%] 20[78.1%] 24[98.6%] 28[79.5%] 5[80.4%] 9[80.7%] 13[78.7%] 17[78.1%] 21[79.5%] 25[78.3%] 29[78.8%] 6[78.6%] 10[79.6%] 14[78.8%] 18[100.0%] 22[78.9%] 26[87.5%] 30[78.9%] 7[78.3%] 11[79.6%] 15[99.3%] 19[78.9%] 23[78.6%] 27[77.8%] 31[78.1%] 19[78.9%] 23[78.6%] 27[77.8%] 31[78.1%] 19[78.9%] 23[78.6%] 27[77.8%] 31[78.1%] 19[78.9%] 23[78.6%] 27[77.8%] 31[78.1%] 19[78.9%] 23[78.6%] 27[77.8%] 31[78.1%] 19[78.9%] 23[78.6%] 27[77.8%] 31[78.1%] 19[78.9%] 23[78.6%] 27[77.8%] 31[78.1%] 19[78.9%] 23[78.9%]	i i
PID USER	PRI NI VIRT RES SHR S CPU%SMEM% TIME+ Command	
5602 ubuntu	20 0 50.3G 42.0G 242M R 2628 65.5 3h28:27 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	
8906 ubuntu	20 0 50.3G 42.0G 242M R 99.5 65.5 6:30.97 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	
8895 ubuntu 8905 ubuntu	20 0 50.3G 42.0G 242M R 98.9 65.5 6:29.25 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_ 20 0 50.3G 42.0G 242M R 98.9 65.5 6:31.87 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	
8914 ubuntu	20 0 50.3G 42.0G 242M R 98.9 65.5 6:31.87 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_ 20 0 50.3G 42.0G 242M R 98.9 65.5 6:30.61 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	
8907 ubuntu	20 0 50.36 42.06 242M R 97.6 65.5 6:20.78 /home/bbuntu/jupyter_env/bin/python3 -m jpykernel_	
8894 ubuntu	20 0 50.3G 42.0G 242M R 87.0 65.5 6:26.68 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel	
8911 ubuntu	20 0 50.3G 42.0G 242M R 86.4 65.5 6:29.80 /home/ubuntu/jupyter env/bin/python3 -m ipykernel	
8912 ubuntu	20 0 50.3G 42.0G 242M R 80.4 65.5 6:23.56 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	launc
8883 ubuntu	20 0 50.3G 42.0G 242M R 79.1 65.5 6:26.01 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	
8885 ubuntu	20 0 50.3G 42.0G 242M R 79.1 65.5 6:26.69 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	
8887 ubuntu	20 0 50.3G 42.0G 242M R 79.1 65.5 6:32.85 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	
8888 ubuntu	20 0 50.3G 42.0G 242M R 79.1 65.5 6:30.81 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	
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8891 ubuntu	20 0 50.3G 42.0G 242M R 79.1 65.5 6:27.52 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	
8892 ubuntu	20 0 50.3G 42.0G 242M R 79.1 65.5 6:33.38 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	
8908 ubuntu	20 0 50.3G 42.0G 242M R 79.1 65.5 6:32.21 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	
8909 ubuntu	20 0 50.3G 42.0G 242M R 79.1 65.5 6:31.99 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	
8886 ubuntu 8893 ubuntu	<pre>20 0 50.3G 42.0G 242M R 78.5 65.5 6:26.15 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_ 20 0 50.3G 42.0G 242M R 78.5 65.5 6:32.02 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_</pre>	
8897 ubuntu	<pre>20 0 50.3G 42.0G 242M R 78.5 65.5 6:32.02 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_ 20 0 50.3G 42.0G 242M R 78.5 65.5 6:26.73 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_</pre>	
8899 ubuntu	20 0 50.3G 42.0G 242M R 78.5 65.5 6:32.20 /home/ubuntu/jupyter_env/bin/python3 -m ipykernel_	
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osos abalica	20 0 30,30 42,00 2421 1 70.3 03.3 0.20.30 7 nome/ dudned/ jupyter_env/bin/pythons - in pykernel_	

You can check how many cores of the CPU is being utilized by the tasks.

7. In JupyterLab, even after installing any package, if you face this error

```
ModuleNotFoundError: No module named 'matplotlib'
```

Restart the kernel. It will solve the issue.

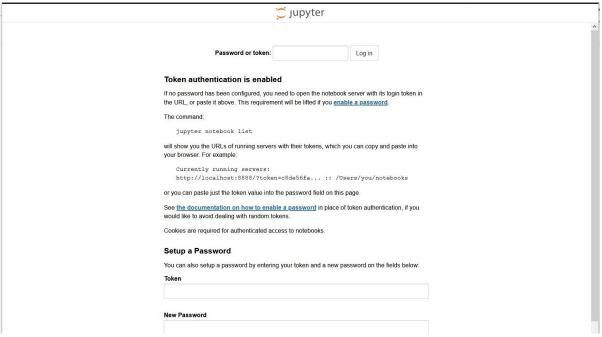
```
client_loop: send disconnect: Connection reset
client_loop: send disconnect: Unknown error
```

If you encounter this issue, check your internet connection.

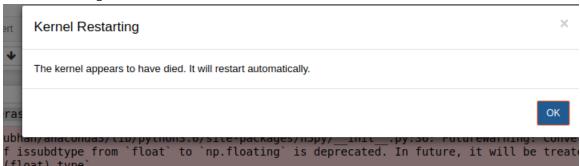
9. If you want to logout to the particular instance from the terminal , do CTRL+D. you can resume the connection back through ssh cmd.

```
Last login: Thu Dec 7 13:59:02 2023 from 100.64.17.3
ubuntu@ghjkl:~$
logout
Connection to 100.81.198.224 closed.
```

10. If password is required to use the jupyterlab, try launching it from rgeular windows cmd prompt. Other applications might lead to this page.



11. If you get a pop up like kernel has died, you may be running out of the exisiting RAM, opt for a instance with higher RAM.



12. Installation of Jupyter-lab in terminal

pip install jupyterlab
jupyter-lab

13. Installation of Neural Compressor in terminal

pip install --upgrade-strategy eager "optimum[neural-compressor]"