Lab2: AWS Architecture

1.Looking at the ping latency information, answer the following questions.

1.1. What is the RTT (round-trip-time) between your instances and Thailand?

Ans: If we ping from N.Virginia instances the latency average time is very high that shows 226.882 ms to www.pantip.com and 301.267 to www.chantrip.in.th. In the other hand, if we ping from instances Singapore the latency is very less showns 1.928 ms to www.pantip.com and 29.333 ms to www.chantrip.in.th.

Destination Thailand	N.virginia Avs RTT(ms)	Singapore Avs RTT(ms)	Paris Avs RTT(ms)
www.pantip.com	226.882	1.928	148.067
www.chantrip.in.th	301.267	29.333	193.278

1.2. Are your instances closer to www.google.com than to Thailand?

Ans: The table below show the instance from Paris that closer to google.com than Thailand.

Destination	N.virginia Avs RTT(ms)	Singapore Avs RTT(ms)	Paris Avs RTT(ms)
www.google.com	1.310	2.336	1.045

1.3. Which country do you think www.google.com is located for each instance? Are they the same or different between your 3 instances?

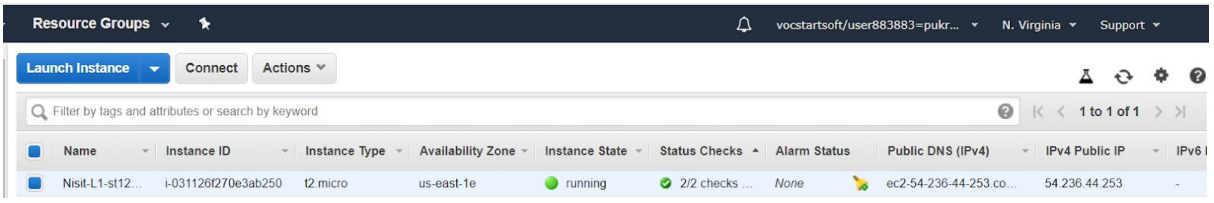
Ans: The instance from region N.virginia,Singapore,Paris. There are edge locations www.google.com. Since the RTT is very less, the average time is 1.5 ms for three regions.

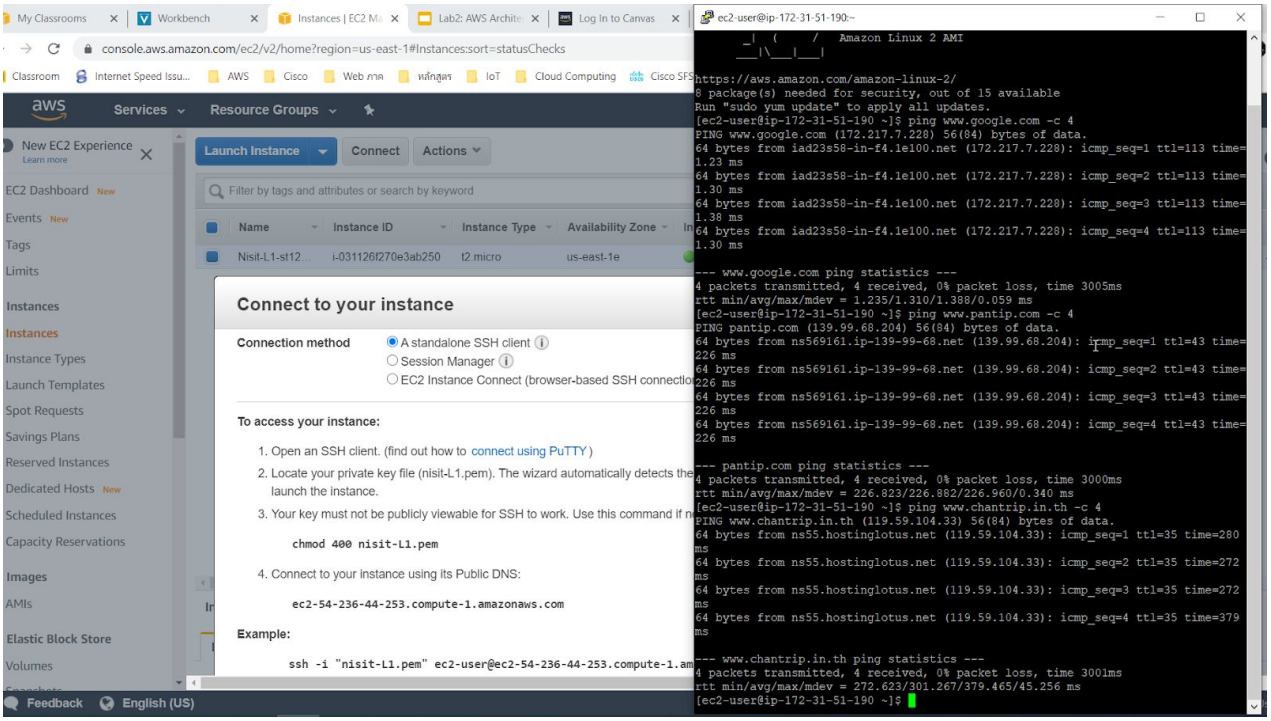
2. If you are a user in Thailand, which EC2 instance in which region (from the 3 you tried) is a better choice to use to run services? Why?

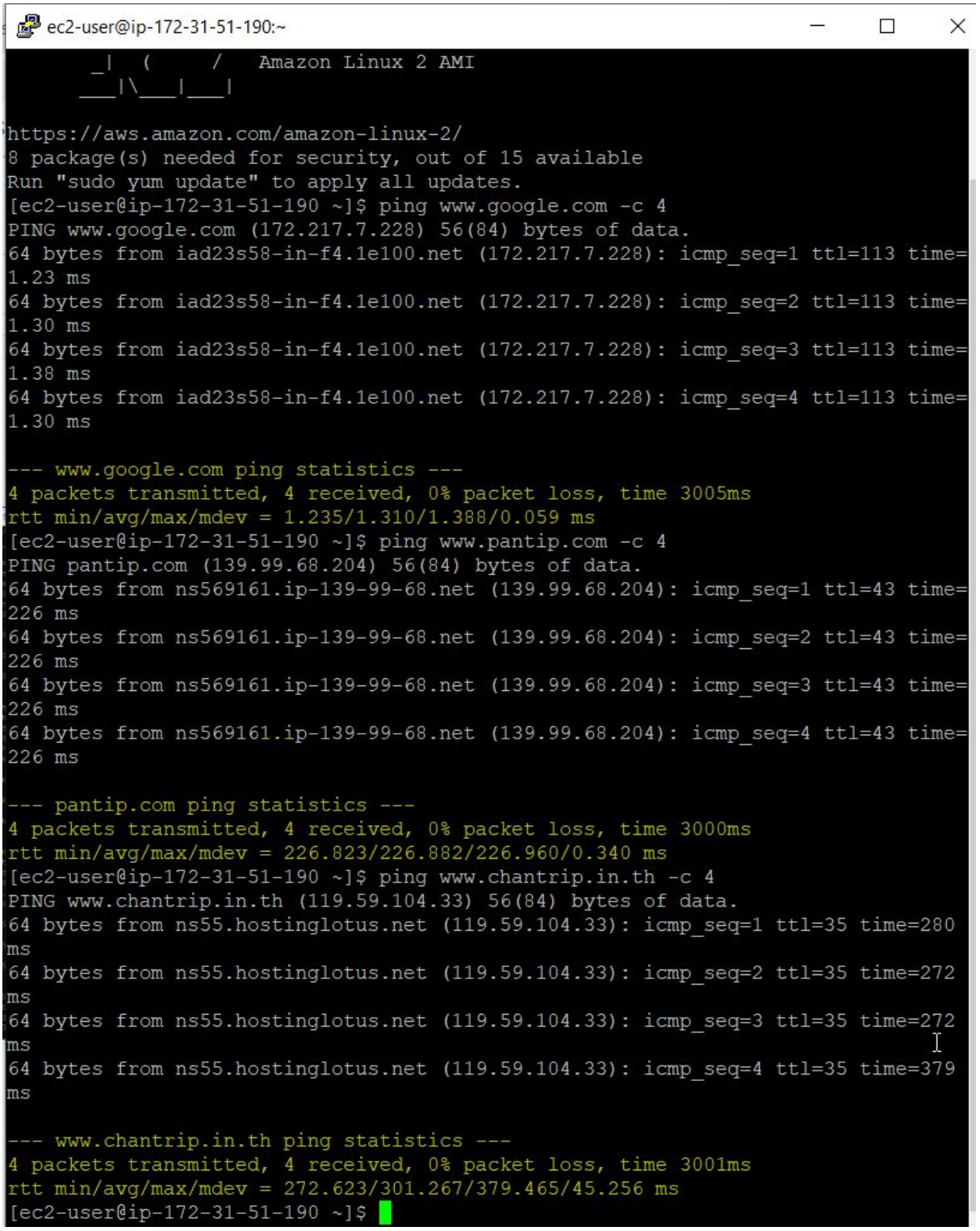
Ans: EC2 instance in Singapore is better if we compare it to N.Virginia and Paris because the latency time is very less.

Result RTT latency form Region N.virginia

- ping www.google.com is rtt min/avg/max = 1.235/1.310/1.388 ms
- ping www.pantip.com is rtt min/avg/max = 226.823/226.882/226.960 ms
- ping www.chantrip.in.th is rtt min/avg/max = 272.623/301.267/379.465 ms

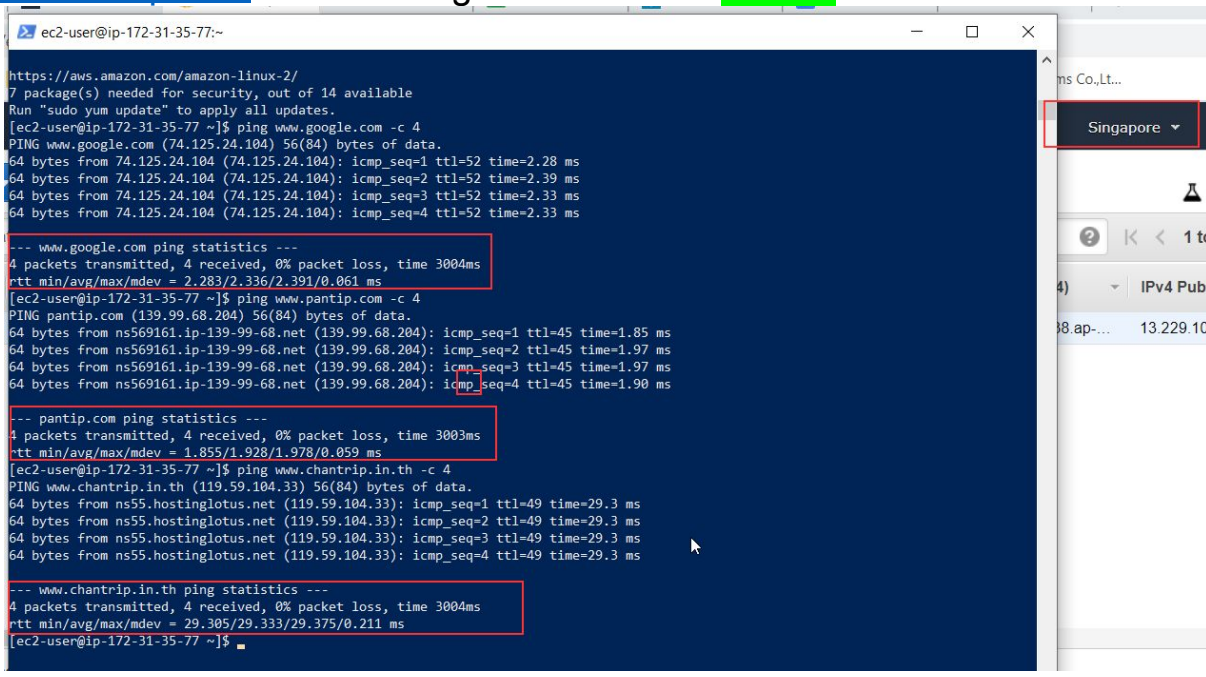



My Classrooms
Workbench
Instances | EC2 Ma
Lab2: AWS Archite
Log In to Canvas
console.aws.amazon.com/ec2/v2/home?region=us-east-1#Instances:sort=statusChecks
Classroom
Internet Speed Issu...
AWS
Cisco
Web ภาค
หลักสูตร
IoT
Cloud Computing
Cisco SFS
aws
Services
Resource Groups
New EC2 Experience
Learn more
EC2 Dashboard New
Events New
Tags
Limits
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts New
Scheduled Instances
Capacity Reservations
Images
AMIs
Elastic Block Store
Volumes
Launch Instance
Connect
Actions
Filter by tags and attributes or search by keyword
Name
Instance ID
Instance Type
Availability Zone
Nisit-L1-st12...
i-031126f270e3ab250
t2.micro
us-east-1e
Connect to your instance
Connection method
A standalone SSH client
Session Manager
EC2 Instance Connect (browser-based SSH connectio
To access your instance:
1. Open an SSH client. (find out how to connect using PuTTY)
2. Locate your private key file (nisit-L1.pem). The wizard automatically detects the
launch the instance.
3. Your key must not be publicly viewable for SSH to work. Use this command if n
chmod 400 nisit-L1.pem
4. Connect to your instance using its Public DNS:
ec2-54-236-44-253.compute-1.amazonaws.com
Example:
ssh -i "nisit-L1.pem" ec2-user@ec2-54-236-44-253.compute-1.am
Feedback
English (US)
ec2-user@ip-172-31-51-190:~
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
8 package(s) needed for security, out of 15 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-51-190 ~]$ ping www.google.com -c 4
PING www.google.com (172.217.7.228) 56(84) bytes of data.
64 bytes from iad23s58-in-f4.1e100.net (172.217.7.228): icmp_seq=1 ttl=113 time=
1.23 ms
64 bytes from iad23s58-in-f4.1e100.net (172.217.7.228): icmp_seq=2 ttl=113 time=
1.30 ms
64 bytes from iad23s58-in-f4.1e100.net (172.217.7.228): icmp_seq=3 ttl=113 time=
1.38 ms
64 bytes from iad23s58-in-f4.1e100.net (172.217.7.228): icmp_seq=4 ttl=113 time=
1.30 ms
--- www.google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3005ms
rtt min/avg/max/mdev = 1.235/1.310/1.388/0.059 ms
[ec2-user@ip-172-31-51-190 ~]$ ping www.pantip.com -c 4
PING pantip.com (139.99.68.204) 56(84) bytes of data.
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=1 ttl=43 time=
226 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=2 ttl=43 time=
226 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=3 ttl=43 time=
226 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=4 ttl=43 time=
226 ms
--- pantip.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3000ms
rtt min/avg/max/mdev = 226.823/226.882/226.960/0.340 ms
[ec2-user@ip-172-31-51-190 ~]$ ping www.chantrip.in.th -c 4
PING www.chantrip.in.th (119.59.104.33) 56(84) bytes of data.
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=1 ttl=35 time=280
ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=2 ttl=35 time=272
ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=3 ttl=35 time=272
ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=4 ttl=35 time=379
ms
--- www.chantrip.in.th ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3001ms
rtt min/avg/max/mdev = 272.623/301.267/379.465/45.256 ms
[ec2-user@ip-172-31-51-190 ~]$


ec2-user@ip-172-31-51-190:~
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
8 package(s) needed for security, out of 15 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-51-190 ~]$ ping www.google.com -c 4
PING www.google.com (172.217.7.228) 56(84) bytes of data.
64 bytes from iad23s58-in-f4.1e100.net (172.217.7.228): icmp_seq=1 ttl=113 time=1.23 ms
64 bytes from iad23s58-in-f4.1e100.net (172.217.7.228): icmp_seq=2 ttl=113 time=1.30 ms
64 bytes from iad23s58-in-f4.1e100.net (172.217.7.228): icmp_seq=3 ttl=113 time=1.38 ms
64 bytes from iad23s58-in-f4.1e100.net (172.217.7.228): icmp_seq=4 ttl=113 time=1.30 ms
--- www.google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3005ms
rtt min/avg/max/mdev = 1.235/1.310/1.388/0.059 ms
[ec2-user@ip-172-31-51-190 ~]$ ping www.pantip.com -c 4
PING pantip.com (139.99.68.204) 56(84) bytes of data.
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=1 ttl=43 time=226 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=2 ttl=43 time=226 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=3 ttl=43 time=226 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=4 ttl=43 time=226 ms
--- pantip.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3000ms
rtt min/avg/max/mdev = 226.823/226.882/226.960/0.340 ms
[ec2-user@ip-172-31-51-190 ~]$ ping www.chantrip.in.th -c 4
PING www.chantrip.in.th (119.59.104.33) 56(84) bytes of data.
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=1 ttl=35 time=280 ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=2 ttl=35 time=272 ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=3 ttl=35 time=272 ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=4 ttl=35 time=379 ms
--- www.chantrip.in.th ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3001ms
rtt min/avg/max/mdev = 272.623/301.267/379.465/45.256 ms
[ec2-user@ip-172-31-51-190 ~]$

Result RTT latency form Region Singapore

- ping www.google.com is rtt min/avg/max = 2.283/2.336/2.391ms
- ping www.pantip.com is rtt min/avg/max = 1.855/1.928/1.978 ms
- ping www.chantrip.in.th is rtt min/avg/max = 29.305/29.333/29.375 ms



https://aws.amazon.com/amazon-linux-2/
7 package(s) needed for security, out of 14 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-35-77 ~]$ ping www.google.com -c 4
PING www.google.com (74.125.24.104) 56(84) bytes of data.
64 bytes from 74.125.24.104 (74.125.24.104): icmp_seq=1 ttl=52 time=2.28 ms
64 bytes from 74.125.24.104 (74.125.24.104): icmp_seq=2 ttl=52 time=2.39 ms
64 bytes from 74.125.24.104 (74.125.24.104): icmp_seq=3 ttl=52 time=2.33 ms
64 bytes from 74.125.24.104 (74.125.24.104): icmp_seq=4 ttl=52 time=2.33 ms

--- www.google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 2.283/2.336/2.391/0.061 ms
[ec2-user@ip-172-31-35-77 ~]$ ping www.pantip.com -c 4
PING pantip.com (139.99.68.204) 56(84) bytes of data.
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=1 ttl=45 time=1.85 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=2 ttl=45 time=1.97 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=3 ttl=45 time=1.97 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=4 ttl=45 time=1.90 ms

--- pantip.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3003ms

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rtt min/avg/max/mdev = 1.855/1.928/1.978/0.059 ms
[ec2-user@ip-172-31-35-77 ~]$ ping www.chantrip.in.th -c 4
PING www.chantrip.in.th (119.59.104.33) 56(84) bytes of data.
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=1 ttl=49 time=29.3 ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=2 ttl=49 time=29.3 ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=3 ttl=49 time=29.3 ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=4 ttl=49 time=29.3 ms

--- www.chantrip.in.th ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 29.305/29.333/29.375/0.211 ms
[ec2-user@ip-172-31-35-77 ~]$
```

Result RTT latency form Region Paris

- ping www.google.com is rtt min/avg/max = 1.009/1.045/1.089 ms
- ping www.pantip.com is rtt min/avg/max = 147.959/148.067/148.184 ms
- ping www.chantrip.in.th is rtt min/avg/max = 193.203/193.278/193.353 ms

```
PS C:\Users\Nisit\Documents> ssh -i .\L2-3.pem ec2-user@ec2-15-236-204-210.eu-west-3.compute.amazonaws.com
The authenticity of host 'ec2-15-236-204-210.eu-west-3.compute.amazonaws.com (15.236.204.210)' can't be established.
ECDSA key fingerprint is SHA256:+A7wWZktjcDMP4ful4uBKxFBSbxaZIWkgBo2Qqnq1zE.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'ec2-15-236-204-210.eu-west-3.compute.amazonaws.com,15.236.204.210' (ECDSA) to the list of know

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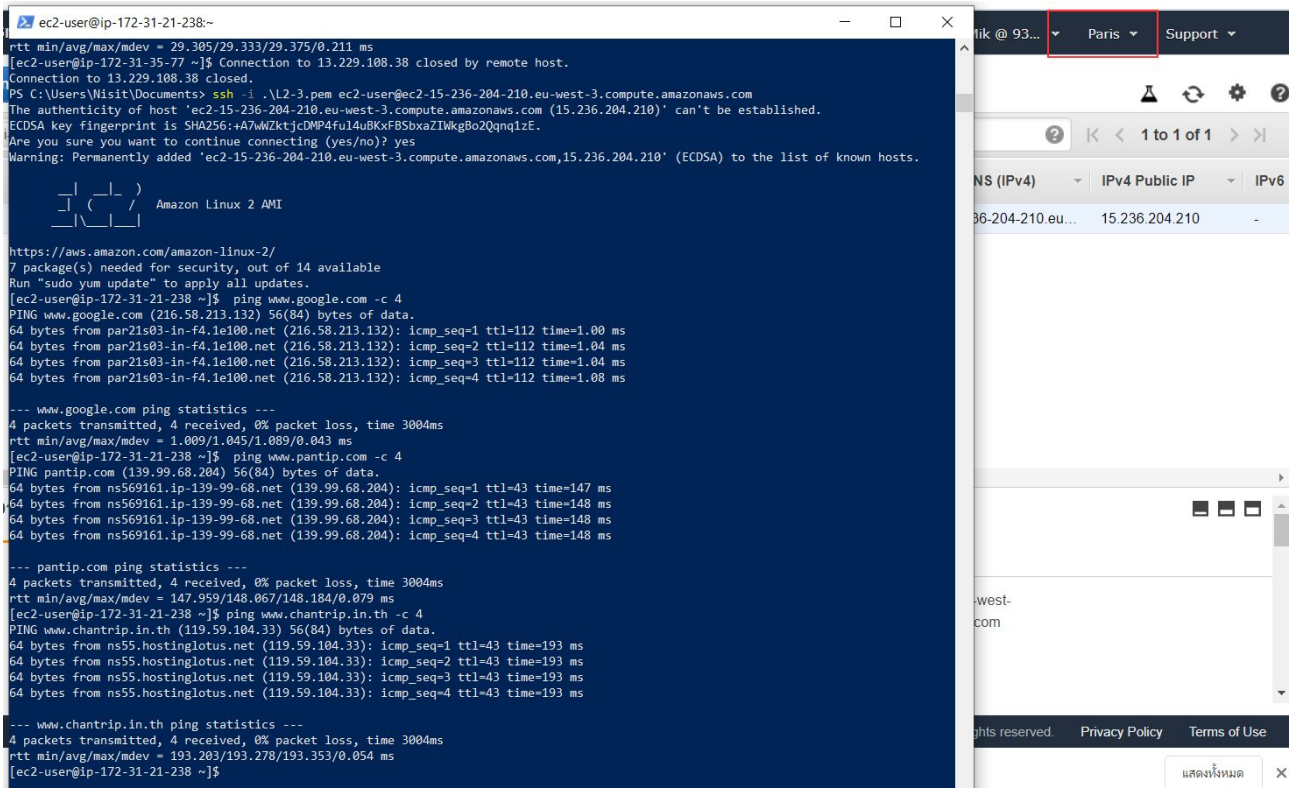
https://aws.amazon.com/amazon-linux-2/
7 package(s) needed for security, out of 14 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-21-238 ~]$  ping www.google.com -c 4
PING www.google.com (216.58.213.132) 56(84) bytes of data.
64 bytes from par21s03-in-f4.1e100.net (216.58.213.132): icmp_seq=1 ttl=112 time=1.00 ms
64 bytes from par21s03-in-f4.1e100.net (216.58.213.132): icmp_seq=2 ttl=112 time=1.04 ms
64 bytes from par21s03-in-f4.1e100.net (216.58.213.132): icmp_seq=3 ttl=112 time=1.04 ms
64 bytes from par21s03-in-f4.1e100.net (216.58.213.132): icmp_seq=4 ttl=112 time=1.08 ms

--- www.google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 1.009/1.045/1.089/0.043 ms
[ec2-user@ip-172-31-21-238 ~]$  ping www.pantip.com -c 4
PING pantip.com (139.99.68.204) 56(84) bytes of data.
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=1 ttl=43 time=147 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=2 ttl=43 time=148 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=3 ttl=43 time=148 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=4 ttl=43 time=148 ms

--- pantip.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 147.959/148.067/148.184/0.079 ms
[ec2-user@ip-172-31-21-238 ~]$ ping www.chantrip.in.th -c 4
PING www.chantrip.in.th (119.59.104.33) 56(84) bytes of data.
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=1 ttl=43 time=193 ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=2 ttl=43 time=193 ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=3 ttl=43 time=193 ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=4 ttl=43 time=193 ms

--- www.chantrip.in.th ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 193.203/193.278/193.353/0.054 ms
[ec2-user@ip-172-31-21-238 ~]$
```

Paris



PS C:\Users\Nisit\Documents> ssh -i .\L2-3.pem ec2-user@ec2-15-236-204-210.eu-west-3.compute.amazonaws.com
The authenticity of host 'ec2-15-236-204-210.eu-west-3.compute.amazonaws.com (15.236.204.210)' can't be established.
ECDSA key fingerprint is SHA256:+A7wWZktjcDMP4ful4uBKxFBSbxaZIWkgBo2Qqnq1zE.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'ec2-15-236-204-210.eu-west-3.compute.amazonaws.com,15.236.204.210' (ECDSA) to the list of known hosts.

```
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_|  (     /   Amazon Linux 2 AMI
___|\___|___|
```

https://aws.amazon.com/amazon-linux-2/
7 package(s) needed for security, out of 14 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-21-238 ~]$ ping www.google.com -c 4
PING www.google.com (216.58.213.132) 56(84) bytes of data.
64 bytes from par21s03-in-f4.1e100.net (216.58.213.132): icmp_seq=1 ttl=112 time=1.00 ms

64 bytes from par21s03-in-f4.1e100.net (216.58.213.132): icmp_seq=2 ttl=112 time=1.04 ms
64 bytes from par21s03-in-f4.1e100.net (216.58.213.132): icmp_seq=3 ttl=112 time=1.04 ms
64 bytes from par21s03-in-f4.1e100.net (216.58.213.132): icmp_seq=4 ttl=112 time=1.08 ms

--- www.google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 1.009/1.045/1.089/0.043 ms
[ec2-user@ip-172-31-21-238 ~]$ ping www.pantip.com -c 4
PING pantip.com (139.99.68.204) 56(84) bytes of data.
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=1 ttl=43 time=147 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=2 ttl=43 time=148 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=3 ttl=43 time=148 ms
64 bytes from ns569161.ip-139-99-68.net (139.99.68.204): icmp_seq=4 ttl=43 time=148 ms

--- pantip.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 147.959/148.067/148.184/0.079 ms
[ec2-user@ip-172-31-21-238 ~]$ ping www.chantrip.in.th -c 4
PING www.chantrip.in.th (119.59.104.33) 56(84) bytes of data.
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=1 ttl=43 time=193 ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=2 ttl=43 time=193 ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=3 ttl=43 time=193 ms
64 bytes from ns55.hostinglotus.net (119.59.104.33): icmp_seq=4 ttl=43 time=193 ms

--- www.chantrip.in.th ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 193.203/193.278/193.353/0.054 ms
[ec2-user@ip-172-31-21-238 ~]$