

VM

- Due Sep 10 at 11:59pm
- Points 25
- Questions 30
- Available Sep 3 at 12am - Sep 10 at 11:59pm
- Time Limit None
- Allowed Attempts 3

Instructions

You work for a start-up company and you are asked to spin-up 3 virtual machines (EC2s). Each EC2 is for specific purpose.

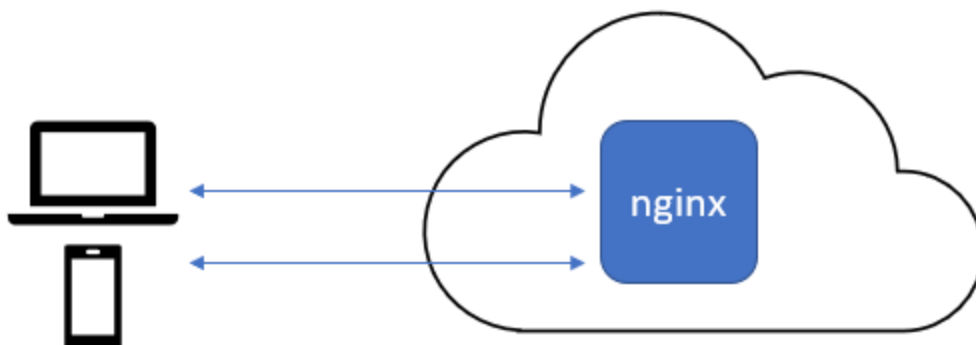
- The first machine is for a web server.
- The second is for general purpose.
- The third one is reserved for internal use only and not accessible from the outside.

At this point the company just need a simple network so you only use the AWS default VPC. Any configurations not mentioned in the problem means it is for you to decide.

All EC2 are to have:

- Instance type: t2.micro.
- AML: ubuntu.

1. First EC2 (Web Server)

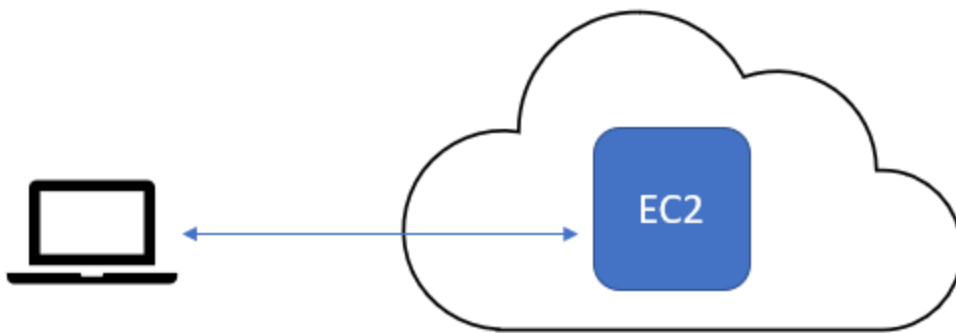


- Name it your_lastname1
- Setup:
 - ssh from everywhere

- Has a public IP
- Allow ping from everywhere
- Allow http call from everywhere
- Install nginx – modify so it will say in the first line: “This is ‘your-first and last name’”

2. Second EC2 (General purpose)

- Name it your_lastname2
- Set-up:
 - ssh from everywhere
 - has a public IP
 - there is a concerned about Ping Of Death (POD) so you want to allow ping from your laptop only



3. Third EC2 (Internal use only)

- Name it your_lastname3
- You want to reserve and protect this EC2 for special program that can not be accessed from the outside.

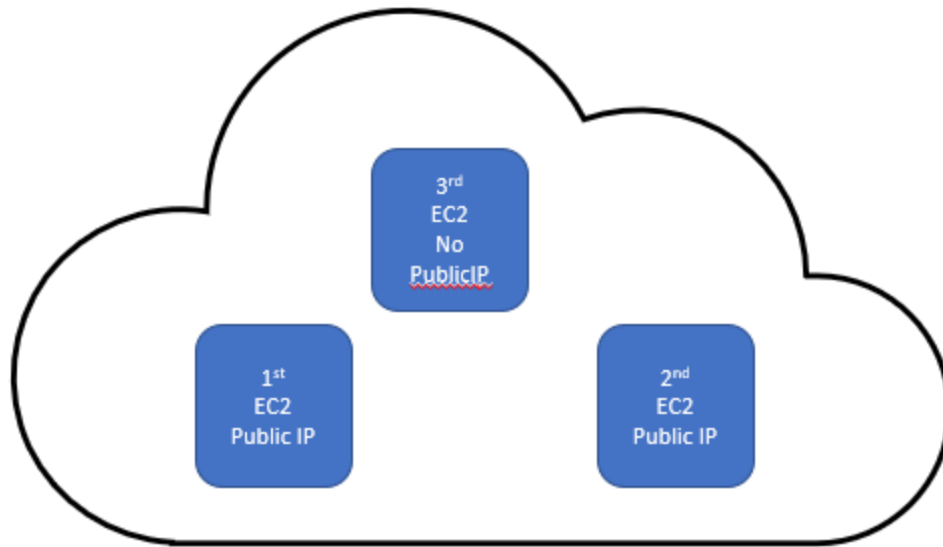
Setup:

- ssh from your first EC2 only
- No public IP
- Allow ping from your first EC2 only

The 1st EC2 is the bastion host for the 3rd EC2. To connect the 3rd EC2 (for example to do ping command from the 3rd EC2) do:

- Do ssh connection to the first EC1. I suggest to use SSH client instead of EC2 instance connect.
- We have to copy the private key (.pem) to the first EC1 so that it can connect to the 3rd EC2. The easiest way is to use the nano editor and create a file with the same name as the .pem file you saved in your laptop, then copy and paste it to that document. Do Ctrl O, enter, Ctrl X.
- use ssh command as suggested in the EC2 console connect for the 3rd EC2.

The VPC will look like this



This quiz was locked Sep 10 at 11:59pm.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	20 minutes	25 out of 25

❗ Correct answers are no longer available.

Score for this attempt: 25 out of 25

Submitted Sep 10 at 12:26am

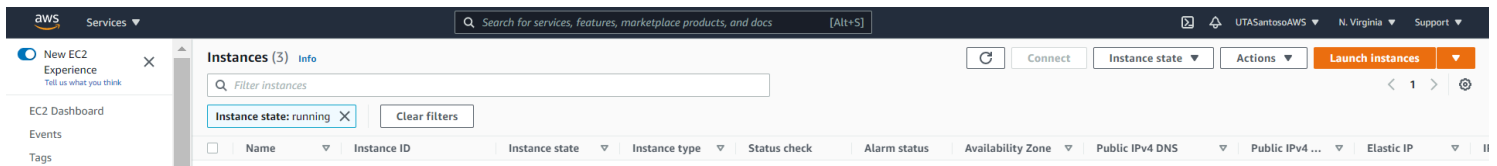
This attempt took 20 minutes.



Question 1

1.3 / 1.3 pts

From the EC2 console you should see the 3 EC2s you have spun up. Which ones have public IPv4 address?



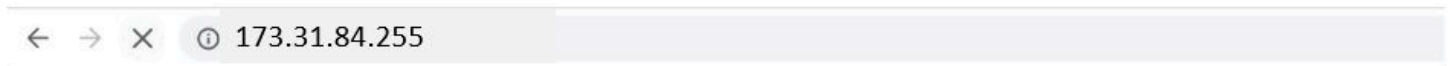
- ☐ your_lastname1 and your_lastname_2
- ☐ your_lastname1 and your_lastname3
- ☐ your_lastname2 and your_lastname3
- ☐ your_lastname3 only
- ☐ your_lastname1 only
- ☐ your_lastname2 only



Question 2

1.3 / 1.3 pts

You called the webpage from your laptop and it shows something similar to the below. The number 173.31.84.255 is the _____.



Hello this is Santoso Budiman

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

- ☐ Public IPv4 address of your_lastname3
- ☐ Public IPv4 address of your_lastname2
- ☒ Public IPv4 address of your_lastname1
- ☐ Private IPv4 address of your_lastname3
- ☐ Private IPv4 address of your_lastname2
- ☐ Private IPv4 address of your_lastname1



Question 3

0.8 / 0.8 pts

I can call the webpage with the same number 173.31.84.255 from my smartphone.

- ☒ True
☐ False



Question 4

0.8 / 0.8 pts

The ping command sent from the first EC2 to the first EC2 using the internal IP address is successful.

- ☒ True
☐ False



Question 5

0.8 / 0.8 pts

The ping command sent from the first EC2 to the second EC2 using the internal IP address is successful.

- ☐ True
☒ False



Question 6

0.8 / 0.8 pts

The ping command sent from the first EC2 to the third EC2 using the internal IP address is successful.

- ☒ True
☐ False



Question 7

0.8 / 0.8 pts

The ping command sent from the second EC2 to the first EC2 using the internal IP address is successful.

- ☒ True
☐ False



Question 8

0.8 / 0.8 pts

The ping command sent from the second EC2 to the second EC2 using the internal IP address is successful.

- ☒ True
☐ False



Question 9

0.8 / 0.8 pts

The ping command sent from the second EC2 to the third EC2 using the internal IP address is successful.

- ☐ True
- ☒ False



Question 10

0.8 / 0.8 pts

The ping command sent from the third EC2 to the first EC2 using the internal IP address is successful.

- ☒ True
- ☐ False



Question 11

0.8 / 0.8 pts

The ping command sent from the third EC2 to the second EC2 using the internal IP address is successful.

- ☐ True
- ☒ False



Question 12

0.8 / 0.8 pts

The ping command sent from the third EC2 to the third EC2 using the internal IP address is successful.

- ☒ True
- ☐ False



Question 13

0.8 / 0.8 pts

The ping command sent from your laptop to the first EC2 using the internal IP address is successful.

- ☐ True
- ☒ False



Question 14

0.8 / 0.8 pts

The ping command sent from your laptop to the second EC2 using the internal IP address is successful.

- ☐ True
- ☒ False



Question 15

0.8 / 0.8 pts

The ping command sent from your laptop to the third EC2 using the internal IP address is successful.

- ☐ True
- ☒ False



Question 16

0.8 / 0.8 pts

The ping command sent from the first EC2 to the first EC2 using the external IP address is successful.

- ☒ True
- ☐ False



Question 17

0.8 / 0.8 pts

The ping command sent from the first EC2 to the second EC2 using the external IP address is successful.

- ☐ True
- ☒ False



Question 18

0.8 / 0.8 pts

The ping command sent from the first EC2 to the third EC2 using the external IP address is successful.

- ☐ True
- ☒ False



Question 19

0.8 / 0.8 pts

The ping command sent from the second EC2 to the first EC2 using the external IP address is successful.

- ☒ True
- ☐ False



Question 20

0.8 / 0.8 pts

The ping command sent from the second EC2 to the second EC2 using the external IP address is successful.

- ☐ True

☒ False



Question 21

0.8 / 0.8 pts

The ping command sent from the second EC2 to the third EC2 using the external IP address is successful.

☐ True

☒ False



Question 22

0.8 / 0.8 pts

The ping command sent from the third EC2 to the first EC2 using the external IP address is successful.

☐ True

☒ False



Question 23

0.8 / 0.8 pts

The ping command sent from the third EC2 to the second EC2 using the external IP address is successful

☐ True

☒ False



Question 24

0.8 / 0.8 pts

The ping command sent from the third EC2 to the third EC2 using the external IP address is successful.

☐ True

☒ False



Question 25

0.8 / 0.8 pts

The ping command sent from your laptop to the first EC2 using the external IP address is successful.

☒ True

☐ False



Question 26

0.8 / 0.8 pts

The ping command sent from your laptop to the second EC2 using the external IP address is successful.

☒ True

☐ False



Question 27

0.8 / 0.8 pts

The ping command sent from your laptop to the third EC2 using the external IP address is successful.

- ☐ True
- ☒ False



Question 28

0.8 / 0.8 pts

For the same configurations described in the main problem, let's assume the IP addresses are as below (these information are for the next 3 questions):

	Internal IP	Public IP
1 st EC2	172.31.0.108	44.192.120.27
2 nd EC2	172.31.11.51	44.192.123.148
3 rd EC2	172.31.15.63	
Laptop		47.185.224.213

What are the inbound rules for the 1st EC2 security group?

☒

IP Version	Type	Protocol	Port range	Source
IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0/0
IPv4	SSH	TCP	22	0.0.0.0/0
IPv4	HTTP	TCP	80	0.0.0.0/0

☐

IP Version	Type	Protocol	Port range	Source
IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0/0
IPv4	SSH	TCP	22	0.0.0.0/0

IP Version	Type	Protocol	Port range	Source
IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0/32
IPv4	SSH	TCP	22	0.0.0.0/32
IPv4	HTTP	TCP	80	0.0.0.0/32

IP Version	Type	Protocol	Port range	Source
IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0
IPv4	SSH	TCP	22	0.0.0.0
IPv4	HTTP	TCP	80	0.0.0.0



Question 29

0.8 / 0.8 pts

Using the IP addresses listed above, what are the inbound rules for the 2nd EC2 security group?

IP Version	Type	Protocol	Port range	Source
IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0/0
IPv4	SSH	TCP	22	0.0.0.0/0
IPv4	HTTP	TCP	80	0.0.0.0/0

IP Version	Type	Protocol	Port range	Source
IPv4	SSH	TCP	22	0.0.0.0/0
IPv4	All ICMP - IPv4	ICMP	All	47.185.224.213/32

IP Version	Type	Protocol	Port range	Source
IPv4	SSH	TCP	22	47.185.224.213/32
IPv4	All ICMP - IPv4	ICMP	All	47.185.224.213/32

IP Version	Type	Protocol	Port range	Source
IPv4	SSH	TCP	22	0.0.0.0/0
IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0/0



Question 30

0.8 / 0.8 pts

Using the IP addresses listed above, what are the inbound rules for the 3rd EC2 security group?

P Version	Type	Protocol	Port range	Source
IPv4	SSH	TCP	22	0.0.0.0/0
IPv4	All ICMP - IPv4	ICMP	All	47.185.224.213/32

IP Version	Type	Protocol	Port range	Source
IPv4	All ICMP - IPv4	ICMP	All	172.31.0.108/32
IPv4	SSH	TCP	22	172.31.0.108/32

IP Version	Type	Protocol	Port range	Source
IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0/0
IPv4	SSH	TCP	22	172.31.0.108/32

IP Version	Type	Protocol	Port range	Source
IPv4	All ICMP - IPv4	ICMP	All	172.31.15.63/32
IPv4	SSH	TCP	22	172.31.15.63/32

Quiz Score: 25 out of 25