

### Lab3

#### 1- Launch a jump host

Take a screen while you are ssh to the jumphost

Also When you ssh from bastion to the private machine

Screenshot from the console showing the instances lps

```
heba@heba-HP-ProBook-450-G4:~/Downloads$ ssh -i "heba.pem" ubuntu@ec2-44-193-203-150.compute-1.amazonaws.com
The authenticity of host 'ec2-44-193-203-150.compute-1.amazonaws.com (44.193.203.150)' can't be established.
ED25519 key fingerprint is SHA256:hn29F0nRHwtv0ZFkQ0lu0ojzJZKwh1wUH/yVZXlVb9k.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-44-193-203-150.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
Welcome to Ubuntu 22.04.2 LTS (GNU/Linux 5.19.0-1025-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Tue Jun 13 18:02:32 UTC 2023

System load:  0.37939453125   Processes:           100
Usage of /:   23.3% of 7.57GB   Users logged in:     0
Memory usage: 23%           IPv4 address for eth0: 10.0.0.19
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

54 updates can be applied immediately.
39 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-10-0-0-19:~$ cd etc
```

```
ubuntu@ip-10-0-0-19:~$ ssh -i "heba.pem" ubuntu@10.0.1.118
Welcome to Ubuntu 22.04.2 LTS (GNU/Linux 5.19.0-1025-aws x86_64)
```

```
* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/advantage
```

System information as of Tue Jun 13 19:12:08 UTC 2023

System load:	0.0	Processes:	100
Usage of /:	23.3% of 7.57GB	Users logged in:	0
Memory usage:	27%	IPv4 address for eth0:	10.0.1.118
Swap usage:	0%		

Expanded Security Maintenance for Applications is not enabled.

56 updates can be applied immediately.

39 of these updates are standard security updates.

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Enable ESM Apps to receive additional future security updates.

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the exact distribution terms for each program are described in the  
individual files in `/usr/share/doc/*/copyright`.

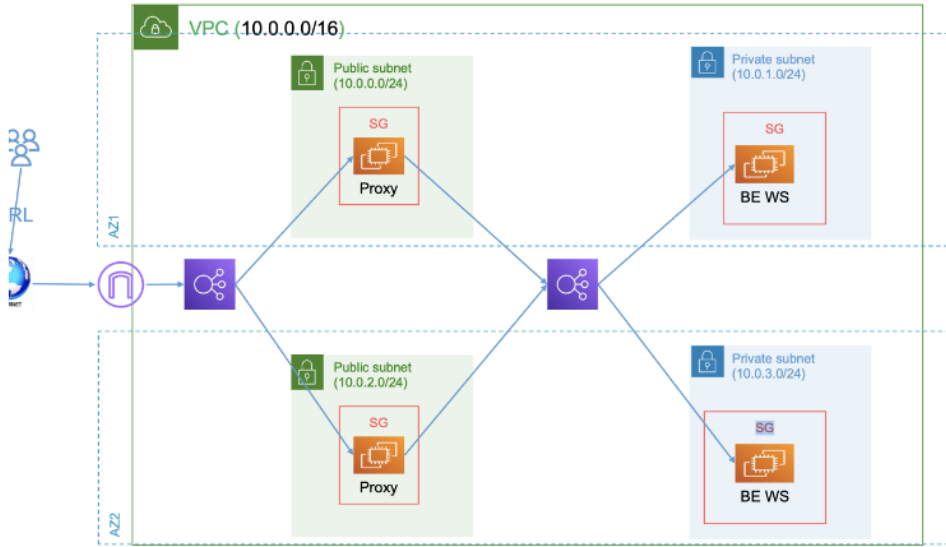
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by  
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo\_root" for details.

```
ubuntu@ip-10-0-1-118:~$ apache2 -v
Server version: Apache/2.4.52 (Ubuntu)
Server built:   2023-03-01T22:43:55
```

2-

Implement the below diagram then take a screenshot while you put dns of the load balancer into the browser and it returns a response from the 2 apache instances  
Also Screenshot from the console showing the machines BE WS have private Ips  
And finally a screenshot showing the targets of the 2 loadbalancers target groups are healthy






Target groups (1/1) <a href="#">Info</a>							
<input type="text" value="Find resources by attribute or tag"/>							
<input checked="" type="checkbox"/>	Name	ARN	Port	Protocol	Target type	Load balancer	VPC ID
<input checked="" type="checkbox"/>	public-target-group	arn:aws:elasticloadbalancing:us-east-1:951412713666:targetgroup/public-target-group/89dfc496789b4db4	80	HTTP	Instance	Public-load-balancer	vpc-00230f2f21937bfac






Target group: public-target-group

[Details](#)
[Targets](#)
[Monitoring](#)
[Health checks](#)
[Attributes](#)
[Tags](#)

Details


arn:aws:elasticloadbalancing:us-east-1:951412713666:targetgroup/public-target-group/89dfc496789b4db4

<div>Target type</div> <div>Instance</div>	<div>Protocol : Port</div> <div>HTTP: 80</div>	<div>Protocol version</div> <div>HTTP1</div>	<div>VPC</div> <div>vpc-00230f2f21937bfac </div>		
<div>IP address type</div> <div>IPv4</div>	<div>Load balancer</div> <div>Public-load-balancer </div>				

Total targets	Healthy	Unhealthy	Unused	Initial	Draining
2	 2	 0	 0	 0	 0

Target groups (1/2) Info

Find resources by attribute or tag

< 1 > ⚙

Name

ARN

Port

Protocol


Target type

Load balancer

VPC ID

☒

Private-load-balancer



arn:aws:elasticloadbalanci...

80

HTTP


Instance

Private-load-balancer

vpc-00230f2f21937bfac

☐

Public-load-balancer



arn:aws:elasticloadbalanci...

80

HTTP

Instance

Public-load-balancer

vpc-00230f2f21937bfac

Target group: Private-load-balancer

Details Targets Monitoring Health checks Attributes Tags

Registered targets (2)

Filter resources by property or value

< 1 > ⚙

Instance ID

Name

Port

Zone

Health ...

Health status details

☐

i-0210e11b682bb942e

Private2

80

us-east-1b

🟢 healthy

☐

i-01c3c08e51884ca1e

Private1

80

us-east-1a

🟢 healthy

rtb-0149a5a58a2046fb7 / lab-4-rtb-private2-us-east-1b

Details Routes Subnet associations Edge associations Route propagation Tags

Routes (3)

Filter routes

Both

< 1 > ⚙

Edit routes

Destination

Target

Status

Propagated

pl-63a5400a

vpce-0a641d63681bcf7ce

🟢 Active

No

0.0.0.0/0

nat-0ca955ebe5e3afb03

🟢 Active

No

10.0.0.0/16

local

🟢 Active

No

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rtb-08a4666eea602df29 / lab-4-rtb-private1-us-east-1a

Details Routes Subnet associations Edge associations Route propagation Tags

Routes (3)

Filter routes

Both

< 1 > ⚙

Edit routes

Destination

Target

Status

Propagated

pl-63a5400a

vpce-0a641d63681bcf7ce

🟢 Active

No

0.0.0.0/0

nat-0ca955ebe5e3afb03

🟢 Active

No

10.0.0.0/16

local

🟢 Active

No

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EC2 > Auto Scaling groups

Auto Scaling groups (1/1) Info

Search your Auto Scaling groups

< 1 > ⚙

Name

Launch template/configuration

Instances

Status

Desired capacity

Min

Max

Availability Zones

☒

Private

my-template | Version Default

2

-

2

2

2

us-east-1a

