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2KE20CS032

Assignment 39

Understood. To follow the provided instructions and create the files/directory using the same name and case as provided in the task steps, please provide me with the specific names and case instructions for the files/directory you want to create.

AWS

Assignment:6 Creating custom AMI using existing images

Overview :

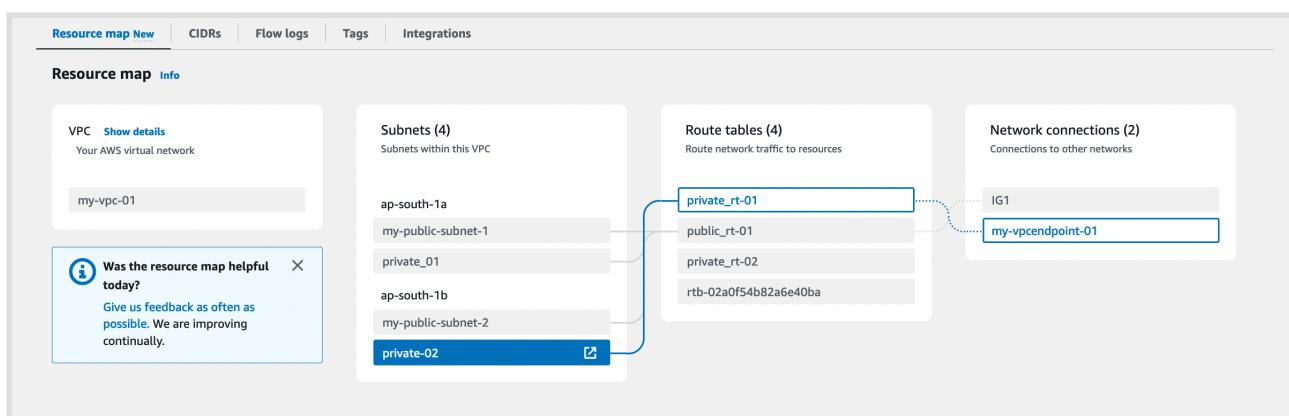
1. You have an Nginx server running in one public instance and a mattermost server running in one of the private instances.
2. You are now going to create similar instances using custom images
3. You need to configure 2 subnets for the two instances in a different availability zone
4. You will have db server as common for 1 & 2 server setup

CREATING SUBNETS

1. Create a new subnet for the public instance that we are going to launch from the image

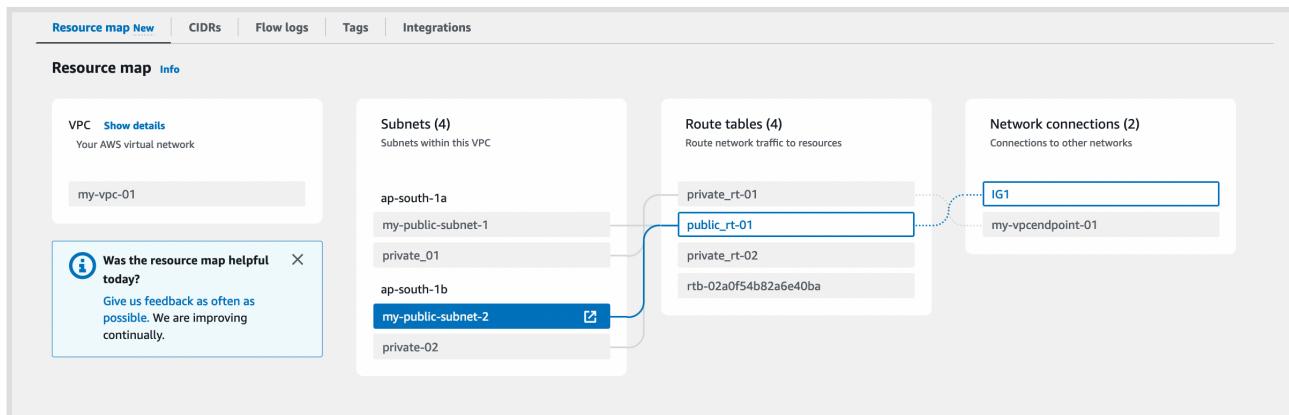
(Note : Select a different availability zone example the subnet you have created for 1st public instance has 1a, this subnet should be 1b)

2. Create a subnet for the new private instance



4. Associate the subnet to the routetable that you have created which does not have Internet Gateway.

3. Associate this subnet to the existing Route table that you have created for public instance



Subnets (10) Info									
C Actions Create subnet									
<input type="text"/> Find resources by attribute or tag									
Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR	Available I			
my-public-subnet-2	subnet-0cd9caa8bc0c4598b	Available	vpc-0e190ca43b317839f my-v...	10.0.128.0/17	-	32762			
matmst-subnet-private2-ap-south-1a	subnet-0636b12357f71c244	Available	vpc-0ad0143d4cdb60e26 mat...	10.0.144.0/20	-	4091			
matmst-subnet-public1-ap-south-1a	subnet-099e79bad073c718c	Available	vpc-0ad0143d4cdb60e26 mat...	10.0.0.0/20	-	4090			
private_01	subnet-0691fa12817842c2d	Available	vpc-0e190ca43b317839f my-v...	10.0.3.0/24	-	249			
private-02	subnet-01eb5812beecfcf9	Available	vpc-0e190ca43b317839f my-v...	10.0.4.0/24	-	250			
-	subnet-07eb50e35bc54402	Available	vpc-05e7b46b0c143e52b	172.31.16.0/20	-	4091			
my-public-subnet-1	subnet-0f3a2030b8047392a	Available	vpc-0e190ca43b317839f my-v...	10.0.1.0/24	-	249			
-	subnet-05ee8ac40c671bc8e	Available	vpc-05e7b46b0c143e52b	172.31.32.0/20	-	4091			
-	subnet-0747c4bb6531be1db	Available	vpc-05e7b46b0c143e52b	172.31.0.0/20	-	4091			
matmst-subnet-private1-ap-south-1a	subnet-047a4403b3abbe909	Available	vpc-0ad0143d4cdb60e26 mat...	10.0.128.0/20	-	4090			

5. Navigate to the ec2 instance page, select the public instance that you have created previously, navigate to actions -> click on images and templates -> click on create an image.

Amazon Machine Images (AMIs) (2) Info									
C Recycle Bin EC2 Image Builder Actions Launch instance from AMI									
<input type="text"/> Find AMI by attribute or tag									
Name	AMI name	AMI ID	Source	Owner	Visibility	Status			
	public-inst(nginx)-1	ami-05832f0b1ddf6a0cf	405819896469/public-inst(nginx)-1	405819896469	Private	Available			
	private-inst(appserver)-2	ami-0c1737a62edbfe965	405819896469/private-inst(appserver...)	405819896469	Private	Available			

6. Launch a new instance from the AMI that you have created
7. Navigate to the ec2 instance page, select the public instance that you have created previously, navigate to actions -> click on images and templates -> click on create image.

Instances (10) Info									
<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv	Actions
<input type="checkbox"/>	public-inst(nginx)-2	i-05a4e1f88e7ed4668	Running	t2.micro	2/2 checks passed	No alarms	+	ap-south-1b	Launch instances
<input type="checkbox"/>	private-inst(appserver)-2	i-07d0f02844efc9f76	Running	t2.micro	2/2 checks passed	No alarms	+	ap-south-1b	Launch instances
<input type="checkbox"/>	openvpn-server-01	i-0ec2b95123cb3bc84	Stopped	t2.micro	-	No alarms	+	ap-south-1a	Launch instances
<input type="checkbox"/>	public-matrst-01	i-05fd630495901a6b	Terminated	t2.micro	-	No alarms	+	ap-south-1a	Launch instances
<input type="checkbox"/>	private(db)-matrst-01	i-03af7a16cdf4199c	Terminated	t2.micro	-	No alarms	+	ap-south-1a	Launch instances
<input type="checkbox"/>	private(appserver)-matrst-01	i-03928d9ff062c1831	Terminated	t2.micro	-	No alarms	+	ap-south-1a	Launch instances
<input type="checkbox"/>	public-inst(nginx)-1	i-059f3bb15a76aad7d	Running	t2.micro	2/2 checks passed	No alarms	+	ap-south-1a	Launch instances
<input type="checkbox"/>	private-inst(appserver)-1	i-0e7568659b5b24589	Running	t2.micro	2/2 checks passed	No alarms	+	ap-south-1a	Launch instances
<input type="checkbox"/>	private-inst(dbserver)	i-0a6d610ce510ab3bf	Running	t2.micro	2/2 checks passed	No alarms	+	ap-south-1a	Launch instances
<input type="checkbox"/>	niginx	i-00e3a225a4bb2109a	Terminated	t2.micro	-	No alarms	+	ap-south-1a	Launch instances

- (8. Now create a new instance from this image, navigate to instance -> Launch instance
9. Now click on My AMI's and select the AMI which you have created
10. Similarly create a new image from your private instance where your mattermost is running .Select the subnet that you have created. Make sure you have configured inbound rules correctly in the security group) x 2 (repeated)

INBOUND RULES

EC2 > Security Groups > sg-025bc1e20f986555f - launch-wizard-34

sg-025bc1e20f986555f - launch-wizard-34

Actions ▾

Details	
Security group name launch-wizard-34	Security group ID sg-025bc1e20f986555f
Owner 405819896469	Description launch-wizard-34 created 2023-11-14T15:00:04.214Z
	VPC ID vpc-0e190ca43b317839f
Inbound rules count 4 Permission entries	Outbound rules count 1 Permission entry

Inbound rules Outbound rules Tags Inbound security rules for webserver-2 (AZ2)

Inbound rules (4)

Security group rule...	IP version	Type	Protocol	Port range	Source	Description
sgr-0e4010181908d1...	IPv4	HTTP	TCP	80	0.0.0.0/0	-
sgr-0728679435c445...	IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0/0	-
sgr-0fd9e76f0bf46d24d	IPv4	MYSQL/Aurora	TCP	3306	0.0.0.16	-
sgr-037c952f7e6c07422	IPv4	SSH	TCP	22	0.0.0.0/0	-

EC2 > Security Groups > sg-01a26c60d79fb8abd - launch-wizard-36

sg-01a26c60d79fb8abd - launch-wizard-36

Actions ▾

Details	
Security group name launch-wizard-36	Security group ID sg-01a26c60d79fb8abd
Owner 405819896469	Description launch-wizard-36 created 2023-11-14T15:07:21.785Z
	VPC ID vpc-0e190ca43b317839f
Inbound rules count 3 Permission entries	Outbound rules count 1 Permission entry

Inbound rules Outbound rules Tags Inbound security rules for appserver (AZ2)

Inbound rules (3)

Security group rule...	IP version	Type	Protocol	Port range	Source	Description
sgr-01f03ed83a5723117	IPv4	Custom TCP	TCP	8065	10.0.128.0/17	-
sgr-0acb639fc9c28abc	IPv4	SSH	TCP	22	157.45.74.7/32	-
sgr-022ff9df1f2b9f325	IPv4	SSH	TCP	22	0.0.0.0/0	-

VERIFICATION

1 NGINX SERVER

```
ec2-user@ip-10-0-157-54.ap-south-1.compute.internal /etc/nginx (0.182s)
sudo systemctl status nginx
● nginx.service - The nginx HTTP and reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: disabled)
   Active: active (running) since Tue 2023-11-14 15:41:46 UTC; 6min ago
     Process: 20240 ExecStartPre=/usr/bin/rm -f /run/nginx.pid (code=exited, status=0/SUCCESS)
     Process: 20241 ExecStartPre=/usr/sbin/nginx -t (code=exited, status=0/SUCCESS)
     Process: 20242 ExecStart=/usr/sbin/nginx (code=exited, status=0/SUCCESS)
  Main PID: 20243 (nginx)
    Tasks: 3 (limit: 1114)
   Memory: 3.0M
      CPU: 70ms
     CGroup: /system.slice/nginx.service
             ├─20243 "nginx: master process /usr/sbin/nginx"
             ├─20248 "nginx: worker process"
             └─20249 "nginx: cache manager process"

Nov 14 15:41:46 ip-10-0-157-54.ap-south-1.compute.internal systemd[1]: Starting nginx.service - The nginx HTTP and reverse proxy server...
Nov 14 15:41:46 ip-10-0-157-54.ap-south-1.compute.internal nginx[20241]: nginx: [warn] conflicting server name "10.0.157.54" on 0.0.0.0:80, ignored
Nov 14 15:41:46 ip-10-0-157-54.ap-south-1.compute.internal nginx[20241]: nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
Nov 14 15:41:46 ip-10-0-157-54.ap-south-1.compute.internal nginx[20241]: nginx: configuration file /etc/nginx/nginx.conf test is successful
Nov 14 15:41:46 ip-10-0-157-54.ap-south-1.compute.internal nginx[20242]: nginx: [warn] conflicting server name "10.0.157.54" on 0.0.0.0:80, ignored
Nov 14 15:41:46 ip-10-0-157-54.ap-south-1.compute.internal systemd[1]: Started nginx.service - The nginx HTTP and reverse proxy server.
```

2 MATTERMOST SERVER

```
[ec2-user@ip-10-0-4-39 ~]$ sudo lsof -i :8065
COMMAND PID USER FD TYPE DEVICE SIZE/OFF NODE NAME
mattermost 3262 mattermost 23u IPv6 24075      0t0 TCP *:8065 (LISTEN)
[ec2-user@ip-10-0-4-39 ~]$
```

