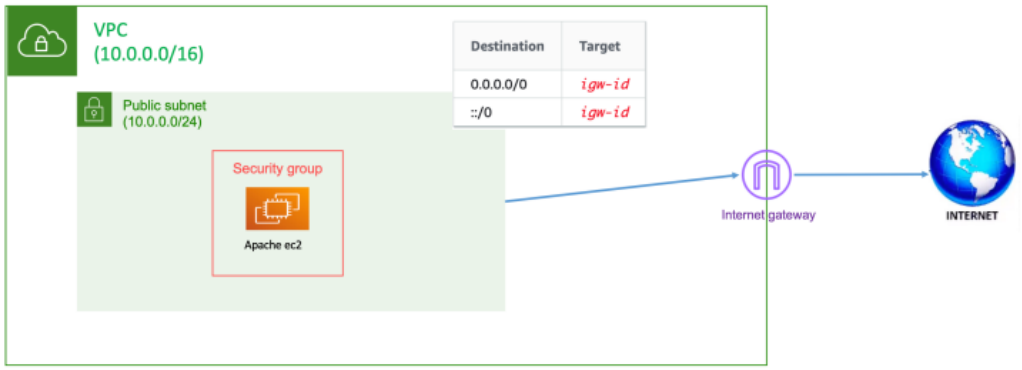
Lab_2

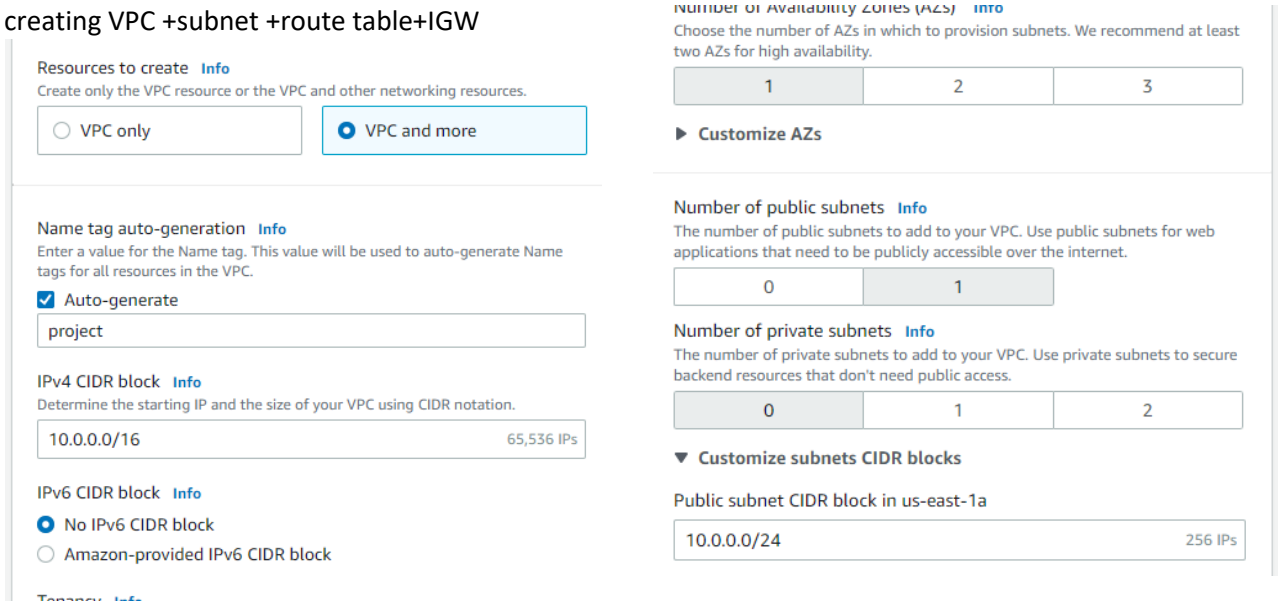
1st Part

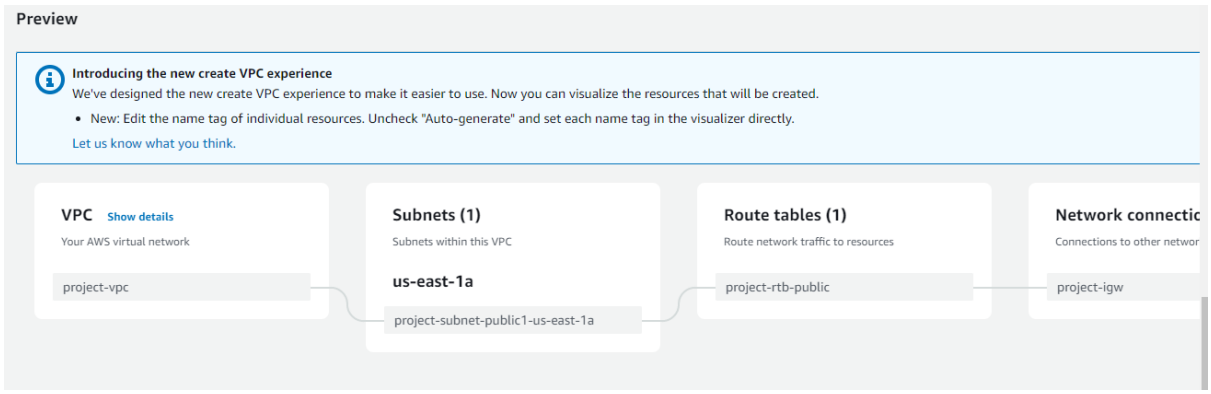


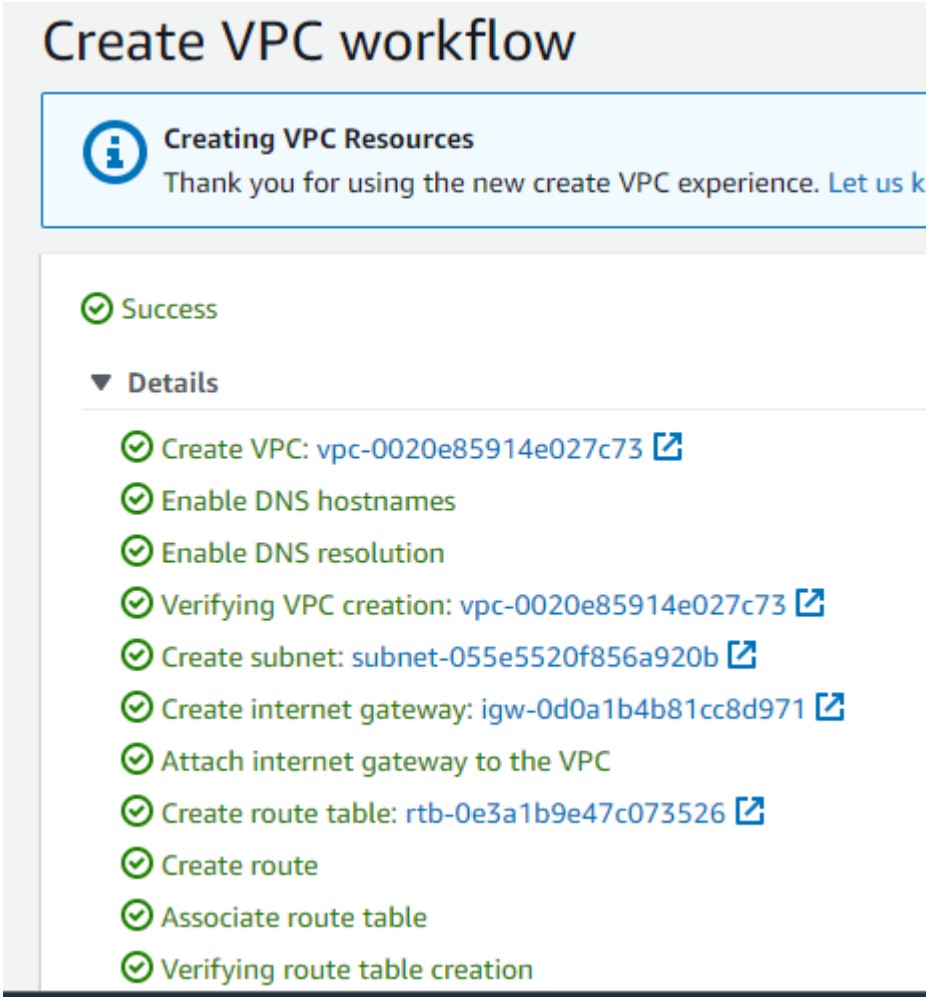
Without SSH

Required:
Screenshot from the public ip and private ip of the instance and a screenshot from the logs of the instance to demonstrate the apache is installed

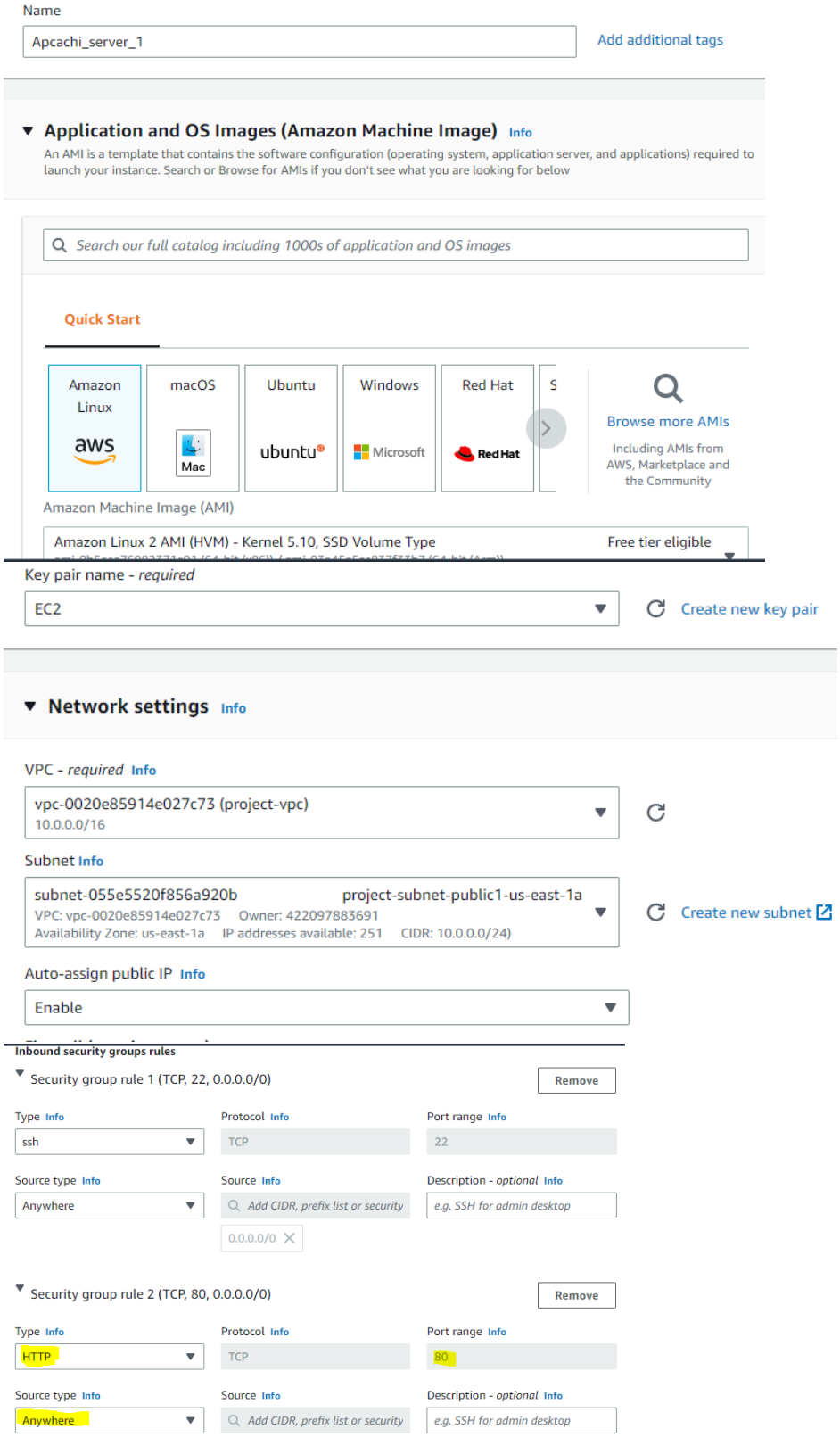
1) creating VPC +subnet +route table+IGW






Create VPC workflow
Creating VPC Resources
Thank you for using the new create VPC experience. Let us k
Success
Details
Create VPC: vpc-0020e85914e027c73
Enable DNS hostnames
Enable DNS resolution
Verifying VPC creation: vpc-0020e85914e027c73
Create subnet: subnet-055e5520f856a920b
Create internet gateway: igw-0d0a1b4b81cc8d971
Attach internet gateway to the VPC
Create route table: rtb-0e3a1b9e47c073526
Create route
Associate route table
Verifying route table creation

2) Creating EC2 attached to the vpc

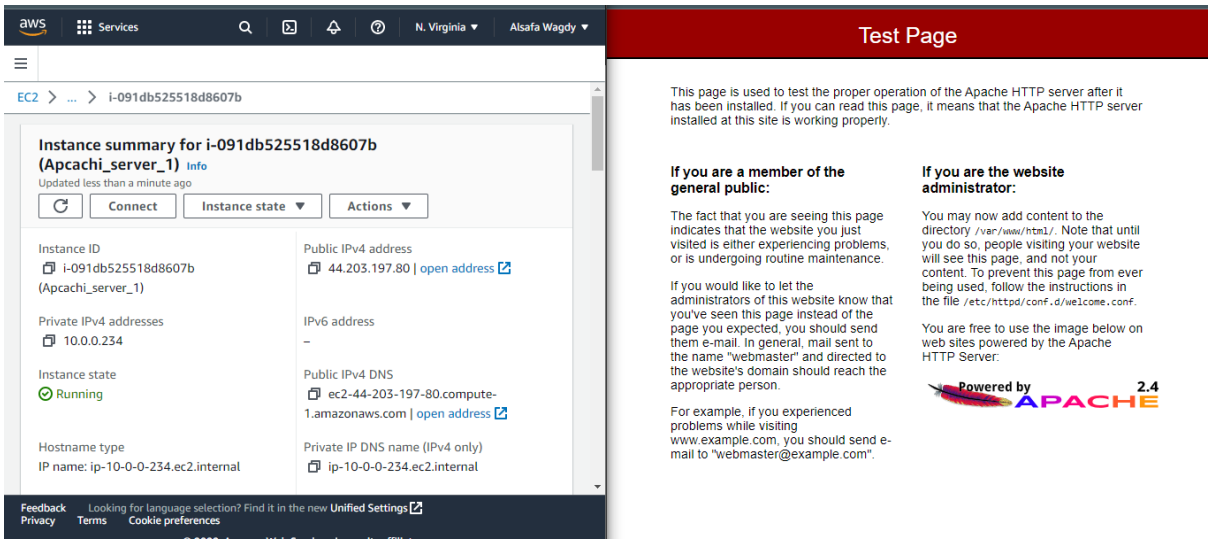


3) To install apachi without while creating Ec2

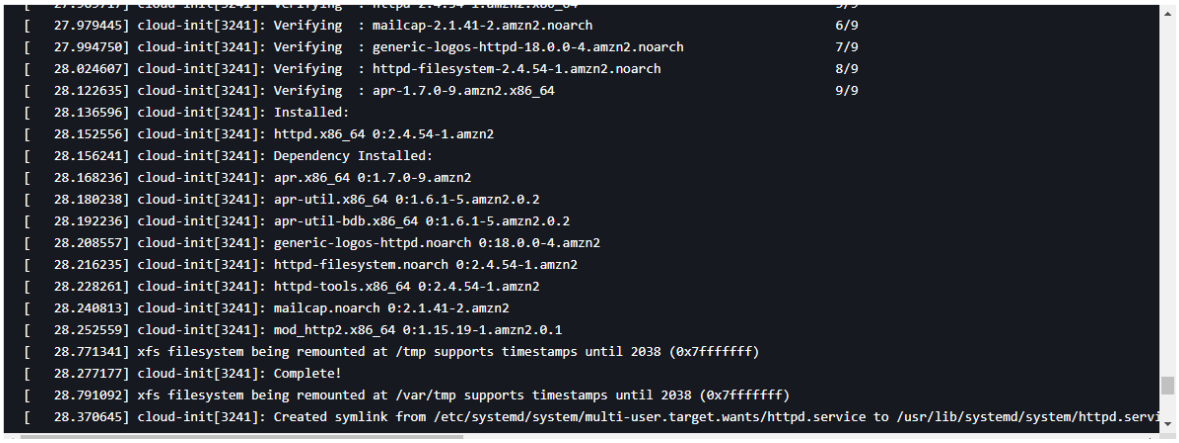
User data Info

```
#!/bin/bash
yum update -y
yum install -y httpd.x86_64
systemctl start httpd.service
systemctl enable httpd.service
```

4)accesing Ec2

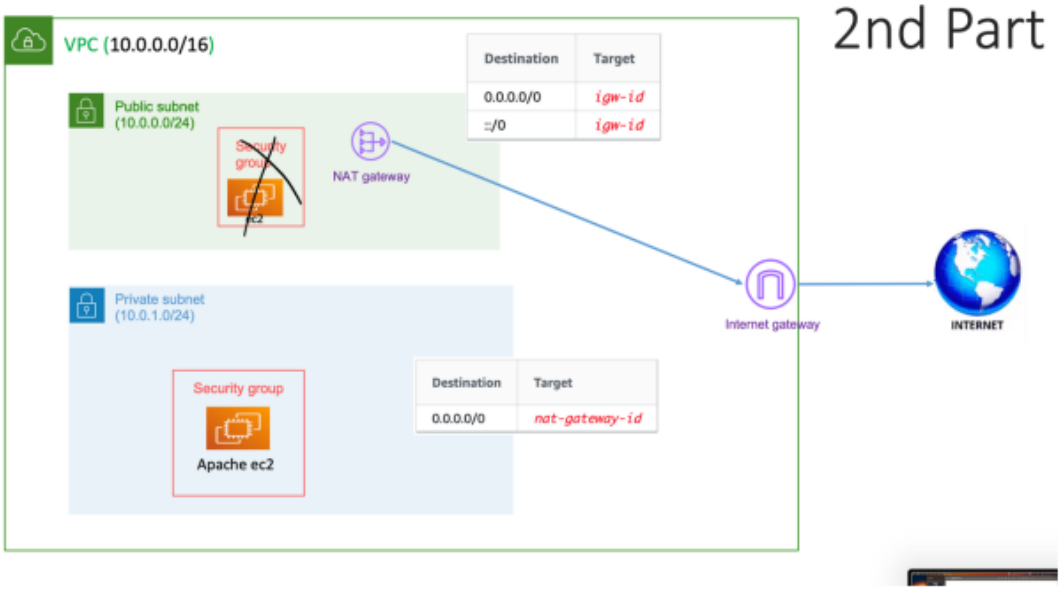


Logs:



```
[   27.979445] cloud-init[3241]: Verifying  : mailcap-2.1.41-2.amzn2.noarch                6/9
[   27.994750] cloud-init[3241]: Verifying  : generic-logos-httpd-18.0.0-4.amzn2.noarch   7/9
[   28.024607] cloud-init[3241]: Verifying  : httpd-filesystem-2.4.54-1.amzn2.noarch      8/9
[   28.122635] cloud-init[3241]: Verifying  : apr-1.7.0-9.amzn2.x86_64                    9/9
[   28.136596] cloud-init[3241]: Installed:
[   28.152556] cloud-init[3241]: httpd.x86_64 0:2.4.54-1.amzn2
[   28.156241] cloud-init[3241]: Dependency Installed:
[   28.168236] cloud-init[3241]: apr.x86_64 0:1.7.0-9.amzn2
[   28.180238] cloud-init[3241]: apr-util.x86_64 0:1.6.1-5.amzn2.0.2
[   28.192236] cloud-init[3241]: apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2
[   28.208557] cloud-init[3241]: generic-logos-httpd.noarch 0:18.0.0-4.amzn2
[   28.216235] cloud-init[3241]: httpd-filesystem.noarch 0:2.4.54-1.amzn2
[   28.228261] cloud-init[3241]: httpd-tools.x86_64 0:2.4.54-1.amzn2
[   28.240813] cloud-init[3241]: mailcap.noarch 0:2.1.41-2.amzn2
[   28.252559] cloud-init[3241]: mod_http2.x86_64 0:1.15.19-1.amzn2.0.1
[   28.771341] xfs filesystem being remounted at /tmp supports timestamps until 2038 (0x7fffffff)
[   28.277177] cloud-init[3241]: Complete!
[   28.791092] xfs filesystem being remounted at /var/tmp supports timestamps until 2038 (0x7fffffff)
[   28.370645] cloud-init[3241]: Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.servi
```

2-



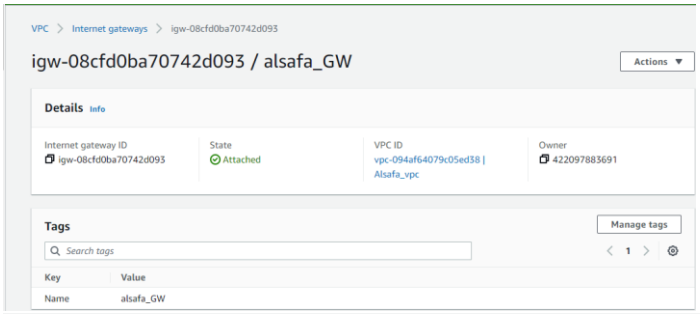
Required:
Screenshot from the instance page demonstrate that the instance is private and a screenshot from the logs of the instance demonstrate the apache2 Is installed (you don't need to do the public ec2 so I made a mark on it)

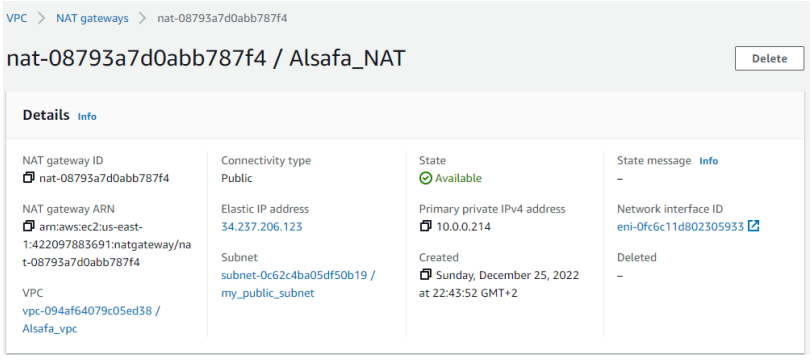
1) Create vpc , public subnet and private subnet:

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
Alsafa_vpc	vpc-094af64079c05ed38	Available	10.0.0.0/16	–
–	vpc-0b92a5634ea5f6681	Available	172.31.0.0/16	–

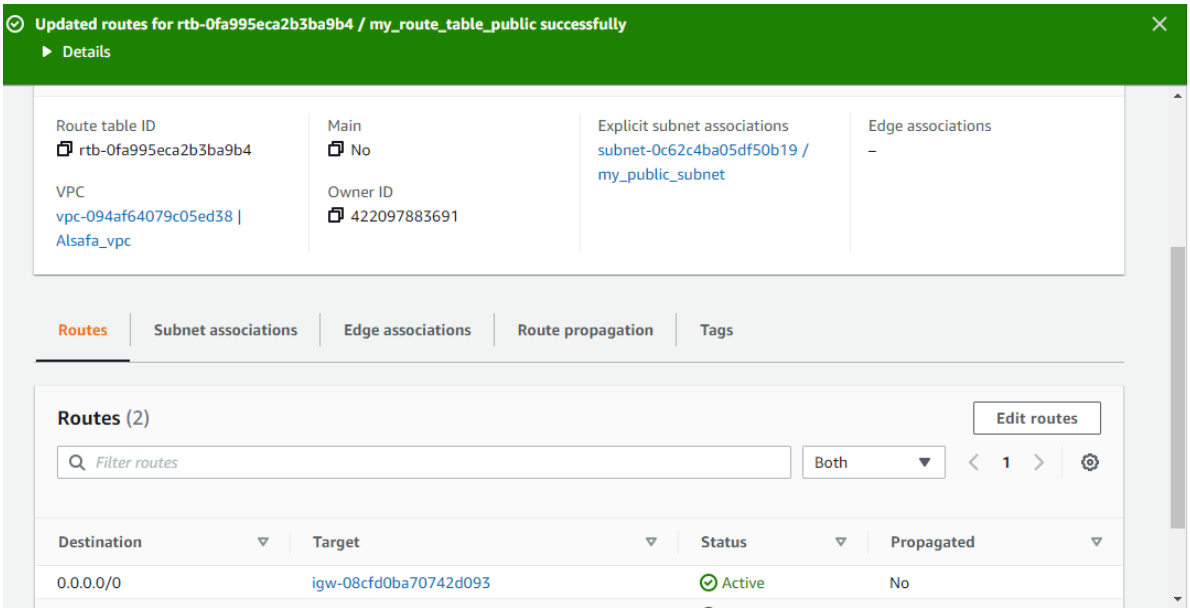
Name	Subnet ID	State	VPC	IPv4 CIDR
my_public_subnet	subnet-0c62c4ba05df50b19	Available	vpc-094af64079c05ed38 | Als...	10.0.0.0/24
my_private_subnet	subnet-06fcb7e16cf4b6614	Available	vpc-094af64079c05ed38 | Als...	10.0.1.0/24

2) Create Internet gateway and attach it to vpc , Route table , and NAT gateway

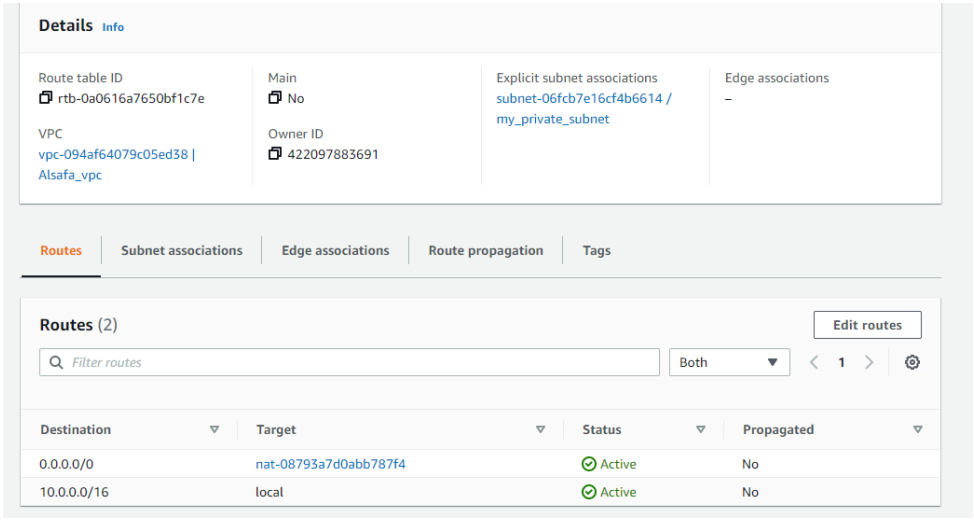




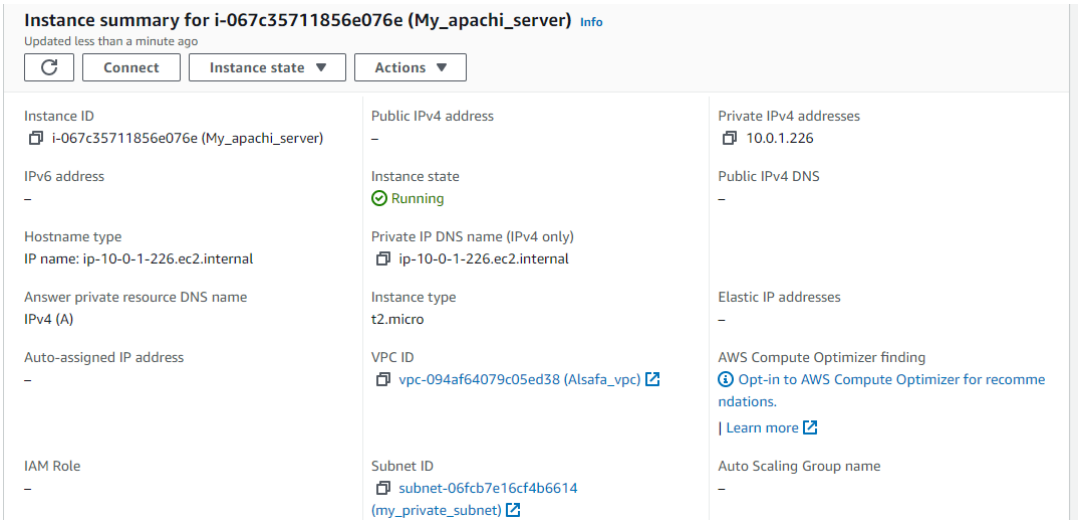
Puplic subnet route table:



Private subnet route table:



3) Create instance in private subnet




```
[   27.953894] cloud-init[3243]: ---> Package apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2 will be installed
[   28.300977] cloud-init[3243]: --> Finished Dependency Resolution
[   28.334853] cloud-init[3243]: Dependencies Resolved
[   28.340457] cloud-init[3243]: ================================================================================
[   28.349091] cloud-init[3243]: Package               Arch      Version                  Repository     Size
[   28.355912] cloud-init[3243]: ================================================================================
[   28.362884] cloud-init[3243]: Installing:
[   28.366458] cloud-init[3243]: httpd                 x86_64    2.4.54-1.amzn2           amzn2-core    1.4 M
[   28.372762] cloud-init[3243]: Installing for dependencies:
[   28.376455] cloud-init[3243]: apr                   x86_64    1.7.0-9.amzn2            amzn2-core    122 k
[   28.382348] cloud-init[3243]: apr-util              x86_64    1.6.1-5.amzn2.0.2        amzn2-core     99 k
[   28.389176] cloud-init[3243]: apr-util-bdb          x86_64    1.6.1-5.amzn2.0.2        amzn2-core     19 k
[   28.395419] cloud-init[3243]: generic-logos-httpd   noarch    18.0.0-4.amzn2           amzn2-core     19 k
[   28.401877] cloud-init[3243]: httpd-filesystem      noarch    2.4.54-1.amzn2           amzn2-core     24 k
[   28.409634] cloud-init[3243]: httpd-tools           x86_64    2.4.54-1.amzn2           amzn2-core     88 k
[   28.415315] cloud-init[3243]: mailcap               noarch    2.1.41-2.amzn2           amzn2-core     31 k
[   28.422790] cloud-init[3243]: mod_http2             x86_64    1.15.19-1.amzn2.0.1      amzn2-core    149 k
[   28.429550] cloud-init[3243]: Transaction Summary
[   28.433037] cloud-init[3243]: ================================================================================
[   28.440601] cloud-init[3243]: Install  1 Package (+8 Dependent packages)
```