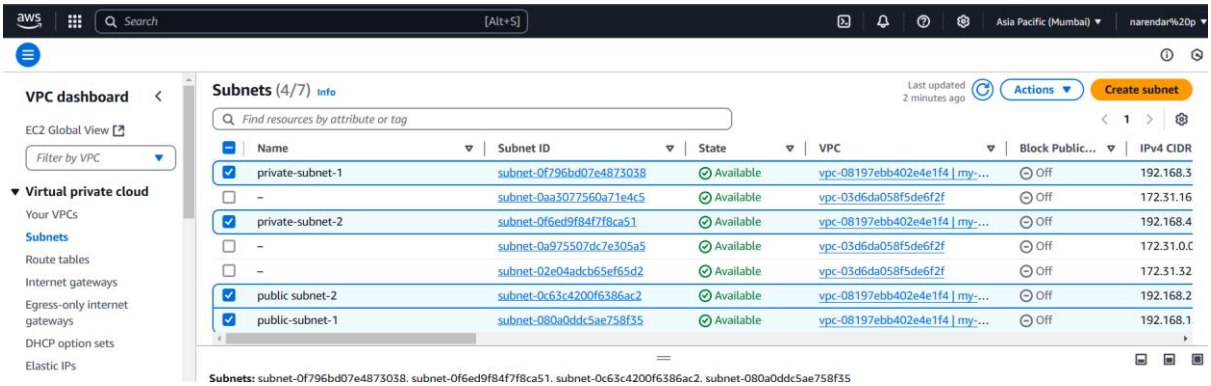
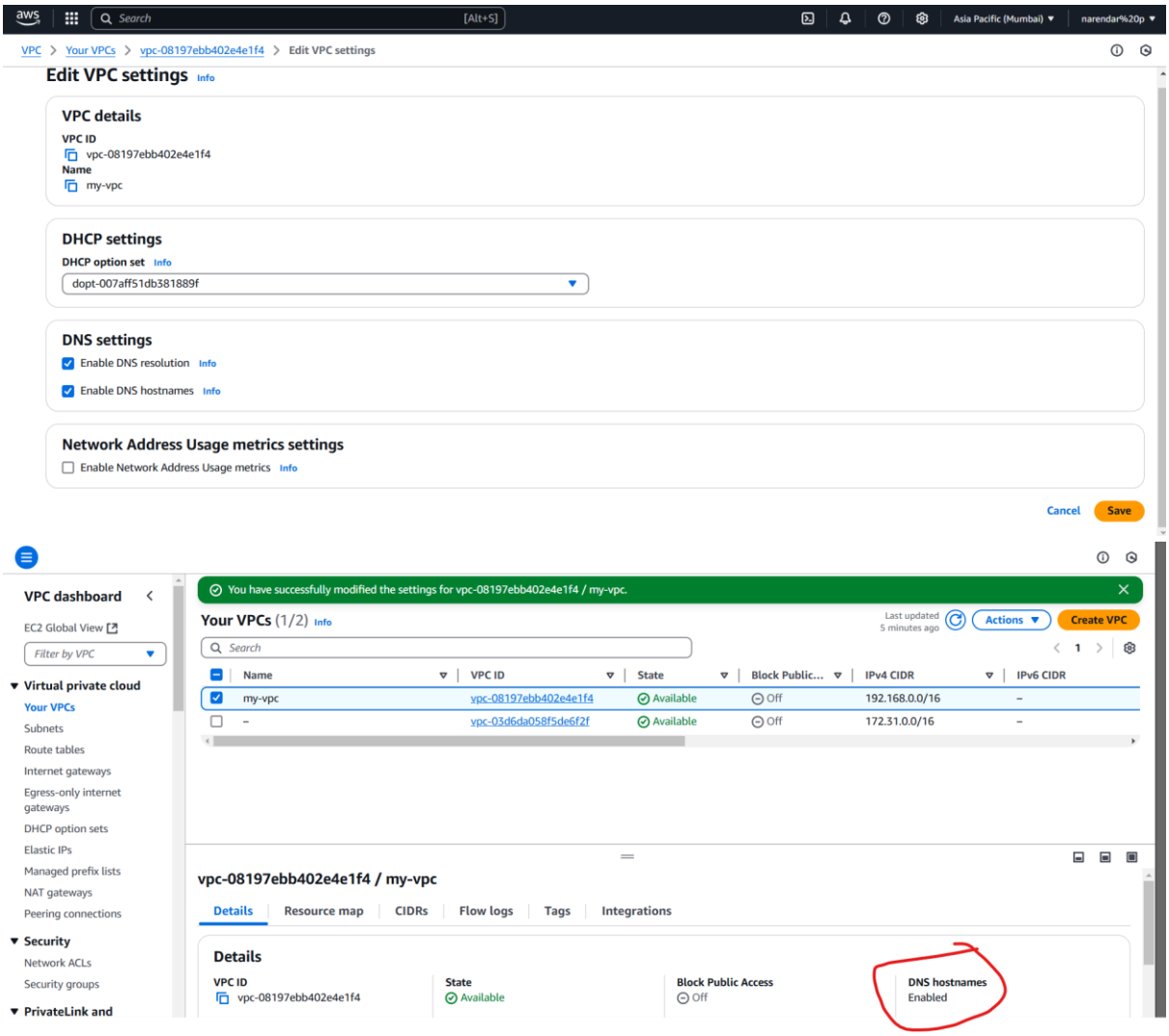
TASK ON VPC 01

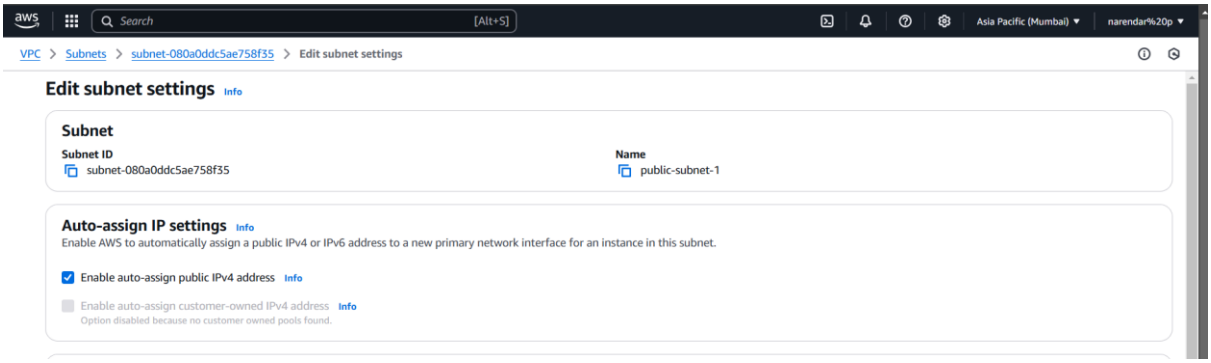
1) Create VPC with 2 private and 2 public subnets:

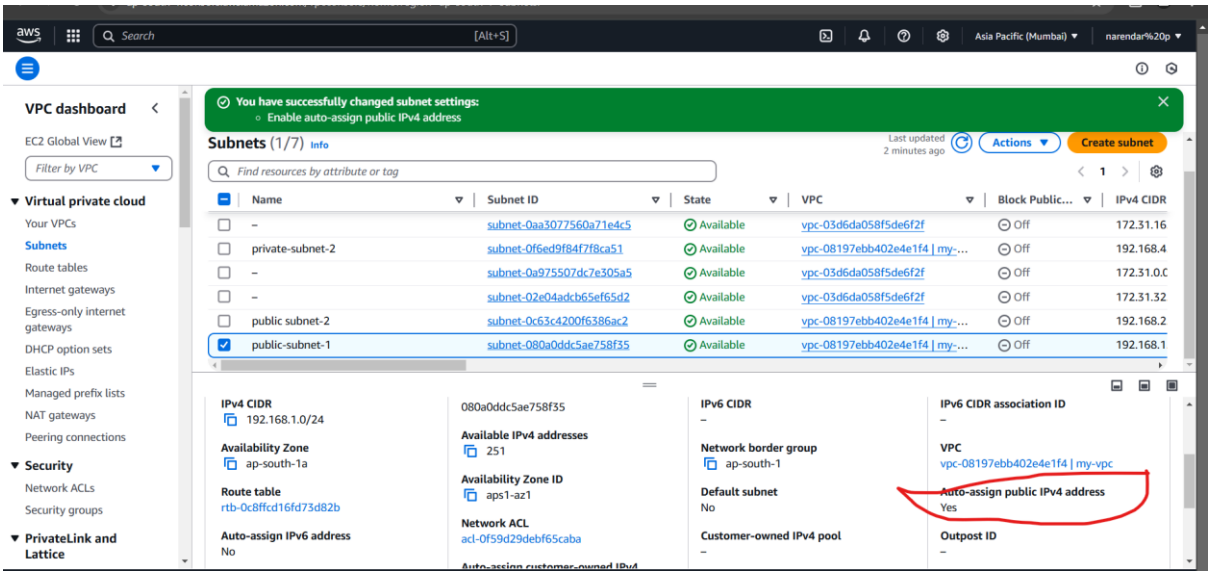


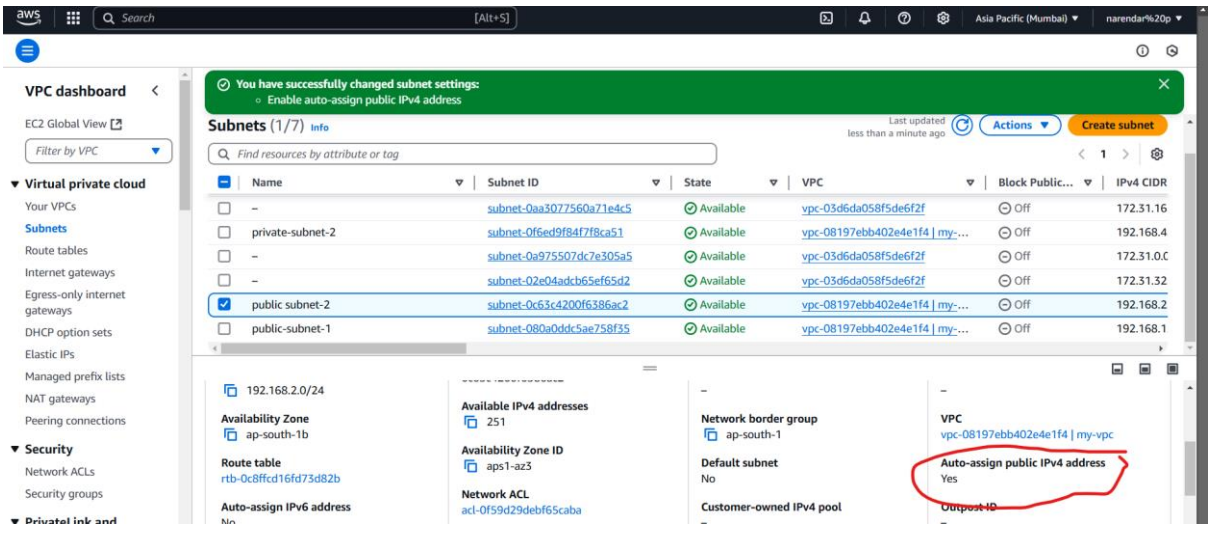
2) Enable DNS Hostname in VPC:



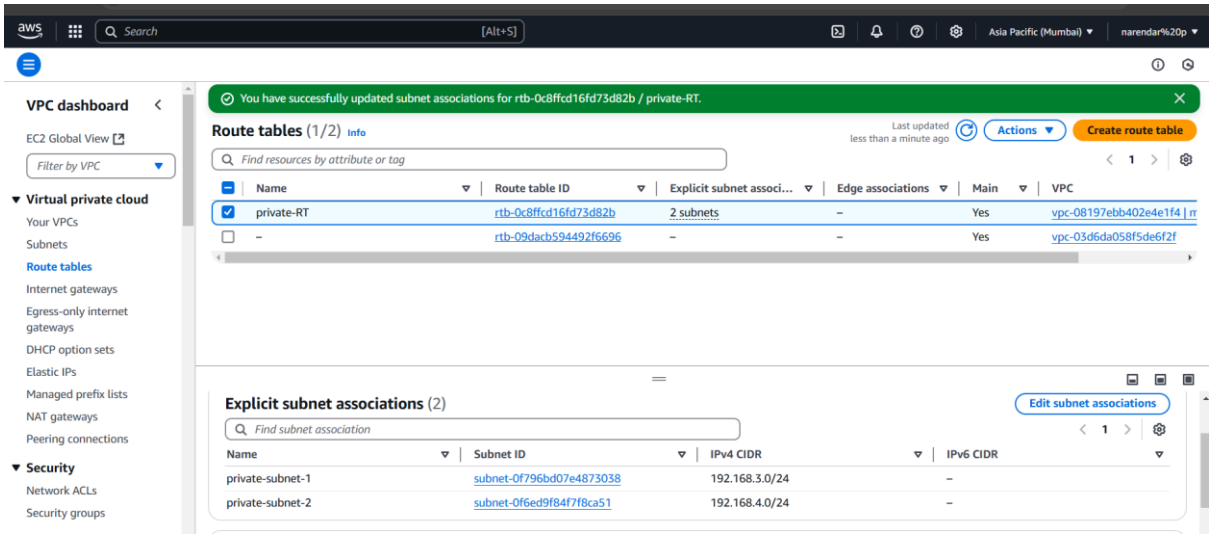
3) Enable Auto Assign Public I p in 2 public subnets:



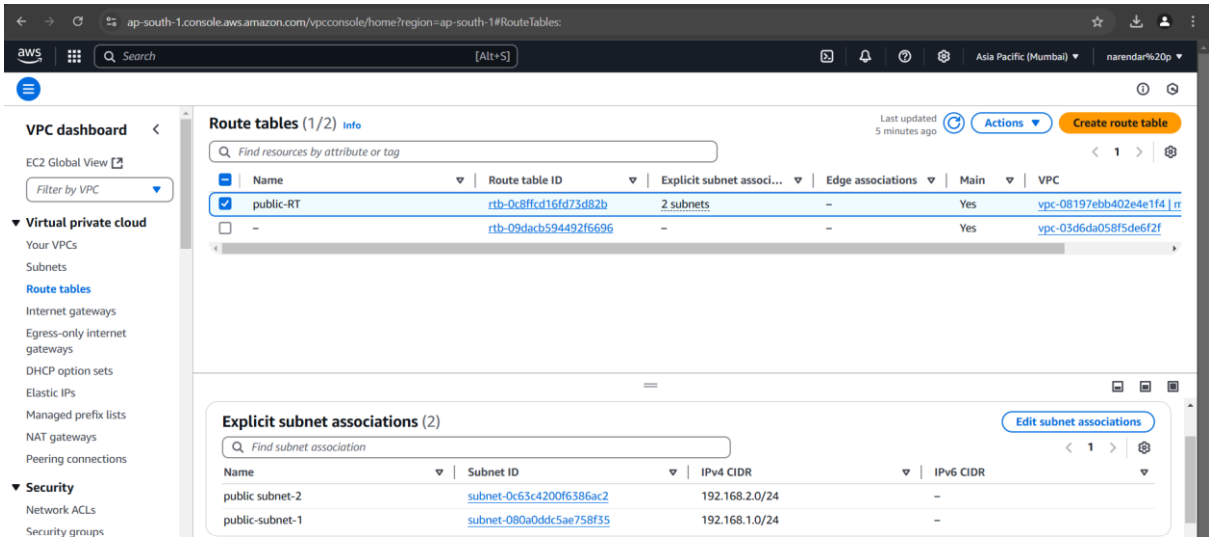




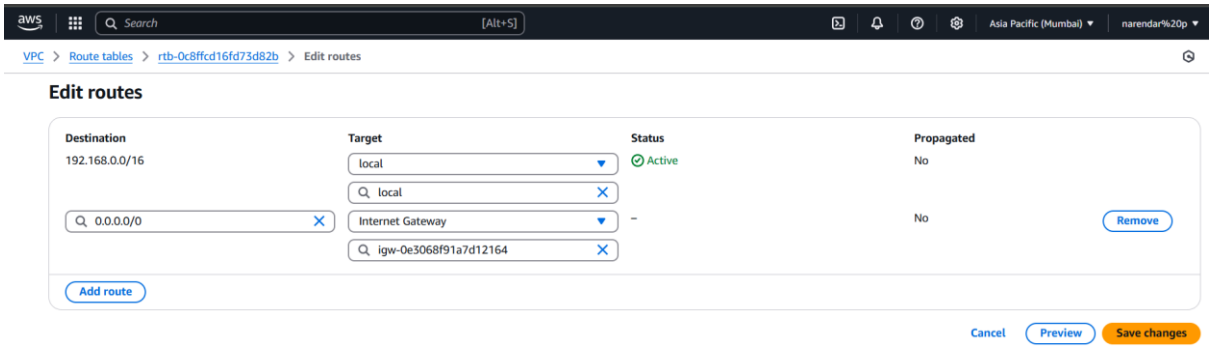
4) Add 2 private subnets in private route table:

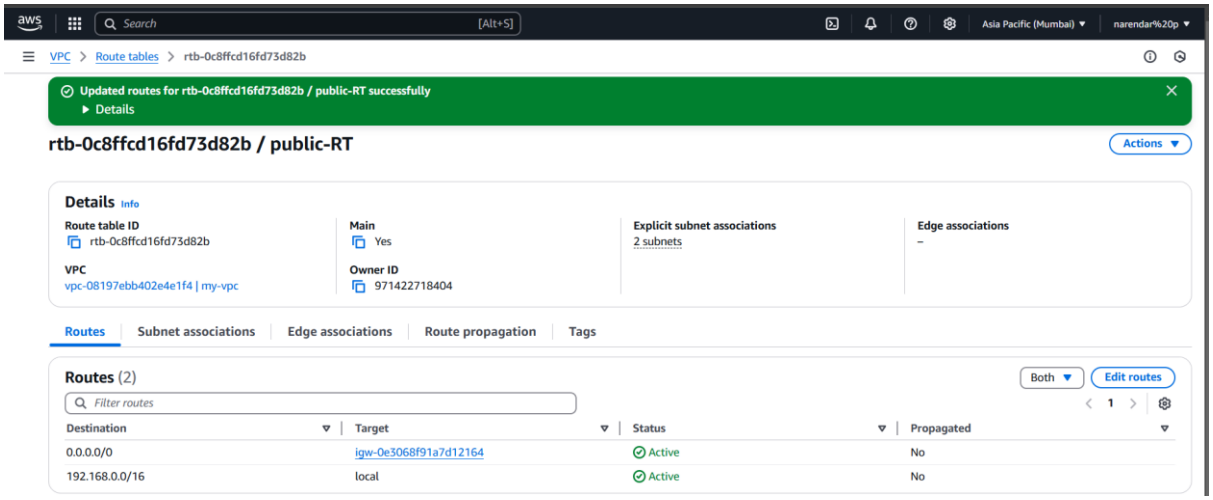


5) Add 2 public subnets in public route table :



6) Public route table will have the routes to internet and local:





7) Create Ec2 in public subnet with t2micro and install php:

```
[root@ip-192-168-1-45 ~]# vi installphp.bash
[root@ip-192-168-1-45 ~]# ./installphp.bash
-bash: ./installphp.bash: Permission denied
[root@ip-192-168-1-45 ~]# chmod 557 installphp.bash
[root@ip-192-168-1-45 ~]# ./installphp.bash
```

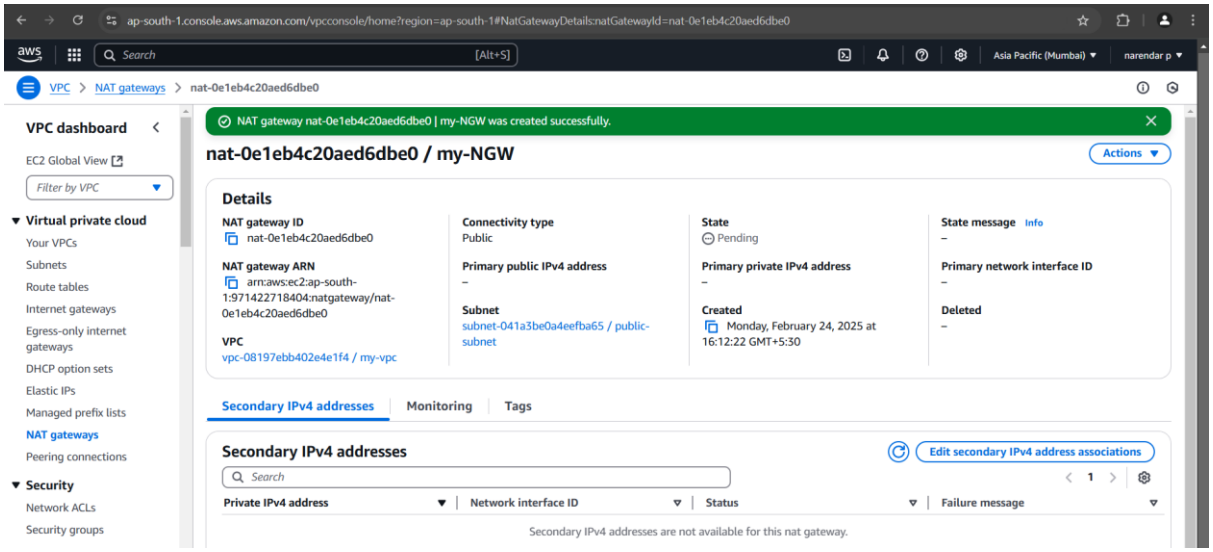
```
#!/bin/bash
sudo yum update -y
sudo yum install -y httpd php php-cli
sudo systemctl enable httpd
sudo systemctl start httpd
echo "<?php phpinfo(); ?>" | sudo tee /var/www/html/index.php
```

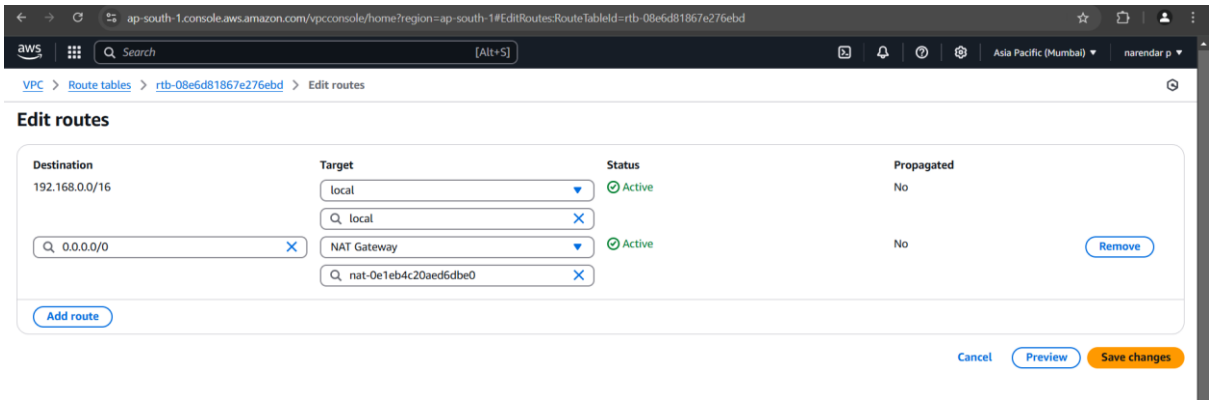
```
Installed:
  httpd.x86_64 0:2.4.62-1.amzn2.0.2                php.x86_64 0:5.4.16-46.amzn2.0.5                php-cli.x86_64 0:5.4.16-46.amzn2.0.5

Dependency Installed:
  apr.x86_64 0:1.7.2-1.amzn2.0.1                   apr-util.x86_64 0:1.6.3-1.amzn2.0.1             apr-util-bdb.x86_64 0:1.6.3-1.amzn2.0.1
  generic-logos-httpd.noarch 0:18.0.0-4.amzn2      httpd-filesystem.noarch 0:2.4.62-1.amzn2.0.2    httpd-tools.x86_64 0:2.4.62-1.amzn2.0.2
  libzip010-compat.x86_64 0:0.10.1-9.amzn2.0.5     mailcap.noarch 0:2.1.41-2.amzn2                 mod_http2.x86_64 0:1.15.19-1.amzn2.0.2
  php-common.x86_64 0:5.4.16-46.amzn2.0.5

Complete!
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.
<?php phpinfo(); ?>
[root@ip-192-168-1-45 ~]#
```

8) Configure Nat gateway in public subnet and connect to private Instance :

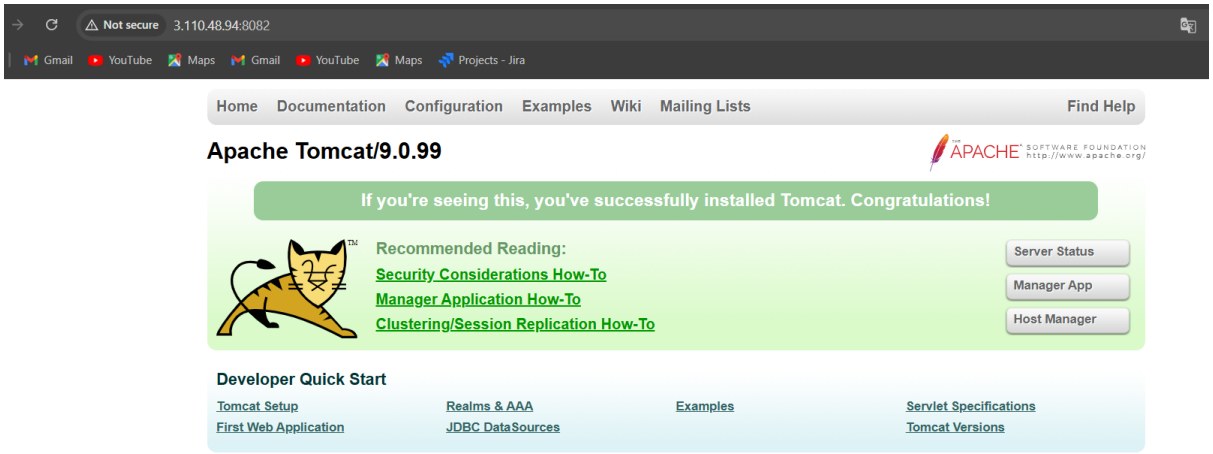


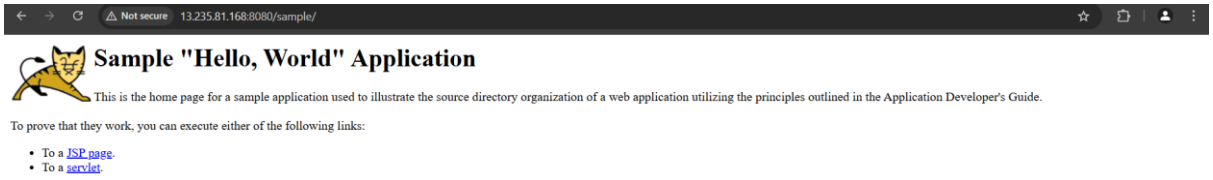


```
[ec2-user@ip-192-168-0-13 ~]$ vi test.pem
[ec2-user@ip-192-168-0-13 ~]$ sudo -i
[root@ip-192-168-0-13 ~]# vi test.pem
[root@ip-192-168-0-13 ~]# chmod 600 test.pem
[root@ip-192-168-0-13 ~]# ssh -i test.pem ec2-user@192.168.0.22
The authenticity of host '192.168.0.22 (192.168.0.22)' can't be established.
ECDSA key fingerprint is SHA256:1Eia4PTID78k9XmQlOZVRYx/ilYwO+DX3771S1HNeKQ.
ECDSA key fingerprint is MD5:71:ab:00:00:77:d1:d5:89:90:26:52:94:bb:16:b7:e7.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '192.168.0.22' (ECDSA) to the list of known hosts.
       #_
   ~\_  ####_        Amazon Linux 2
  ~~  \_#####\
  ~~     \###|       AL2 End of Life is 2026-06-30.
  ~~       \#/ ___
   ~~       V~' '->
    ~~~         /    A newer version of Amazon Linux is available!
      ~~._.   _/
         _/ _/       Amazon Linux 2023, GA and supported until 2028-03-15.
       _/m/'           https://aws.amazon.com/linux/amazon-linux-2023/

[ec2-user@ip-192-168-0-22 ~]$ sudo -i
[root@ip-192-168-0-22 ~]# ping google.com
PING google.com (142.251.42.46) 56(84) bytes of data.
64 bytes from bom12s20-in-f14.1e100.net (142.251.42.46): icmp_seq=1092 ttl=116 t
ime=3.87 ms
64 bytes from bom12s20-in-f14.1e100.net (142.251.42.46): icmp_seq=1093 ttl=116 t
ime=2.33 ms
64 bytes from bom12s20-in-f14.1e100.net (142.251.42.46): icmp_seq=1094 ttl=116 t
ime=2.17 ms
64 bytes from bom12s20-in-f14.1e100.net (142.251.42.46): icmp_seq=1095 ttl=116 t
ime=2.65 ms
64 bytes from bom12s20-in-f14.1e100.net (142.251.42.46): icmp_seq=1096 ttl=116 t
ime=2.11 ms
64 bytes from bom12s20-in-f14.1e100.net (142.251.42.46): icmp_seq=1097 ttl=116 t
ime=2.44 ms
64 bytes from bom12s20-in-f14.1e100.net (142.251.42.46): icmp_seq=1098 ttl=116 t
ime=2.11 ms
64 bytes from bom12s20-in-f14.1e100.net (142.251.42.46): icmp_seq=1099 ttl=116 t
ime=2.18 ms
64 bytes from bom12s20-in-f14.1e100.net (142.251.42.46): icmp_seq=1100 ttl=116 t
ime=2.11 ms
64 bytes from bom12s20-in-f14.1e100.net (142.251.42.46): icmp_seq=1101 ttl=116 t
ime=2.53 ms
64 bytes from bom12s20-in-f14.1e100.net (142.251.42.46): icmp_seq=1102 ttl=116 t
ime=2.10 ms
64 bytes from bom12s20-in-f14.1e100.net (142.251.42.46): icmp_seq=1103 ttl=116 t
ime=2.34 ms
```

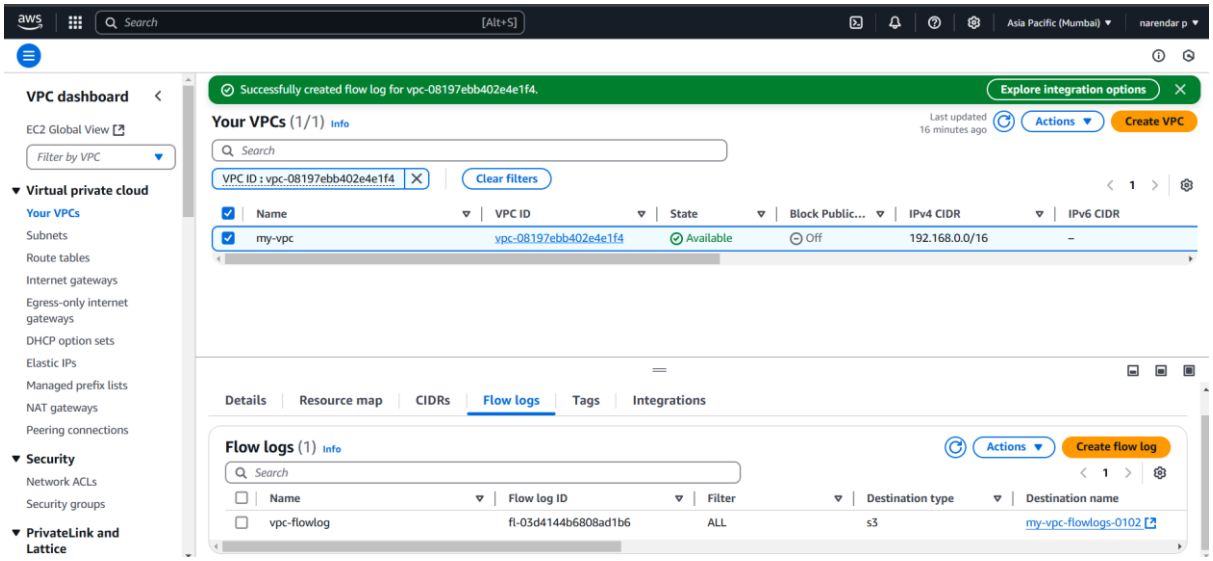
9) Install Apache Tomcat in private ec2 and deploy a sample app:

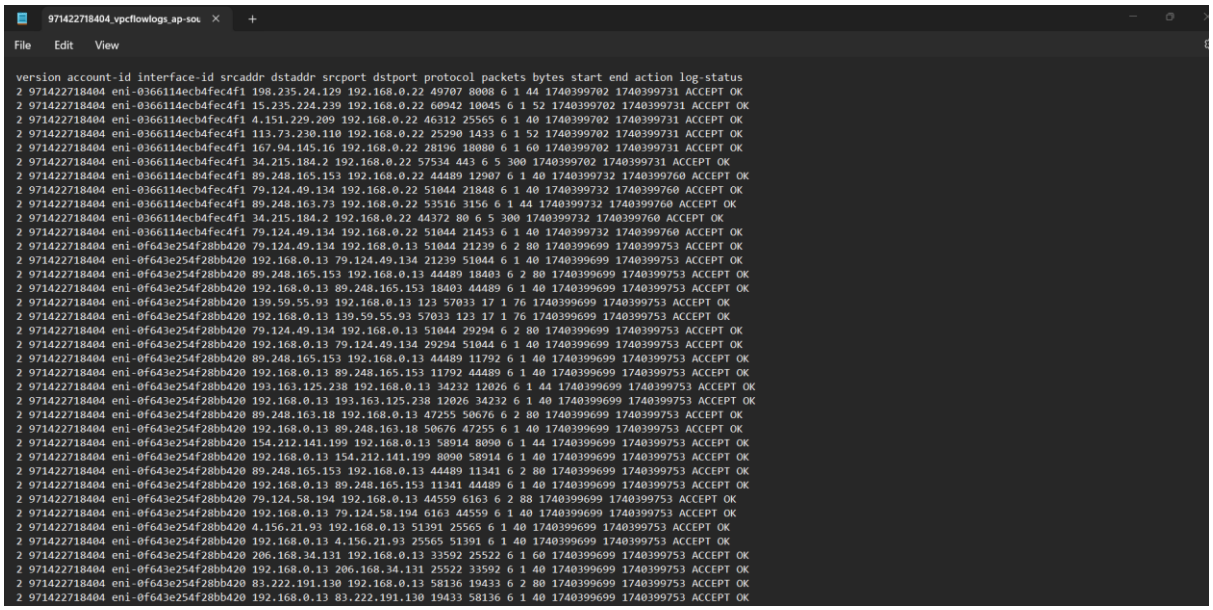




10) Configure VPC flow logs and store the logs in s3 and CloudWatch:

Store the logs in S3:





Store the logs in Cloud watch: