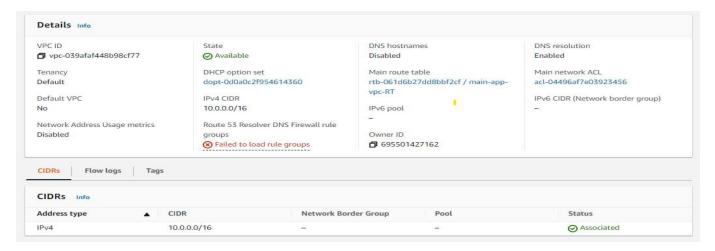
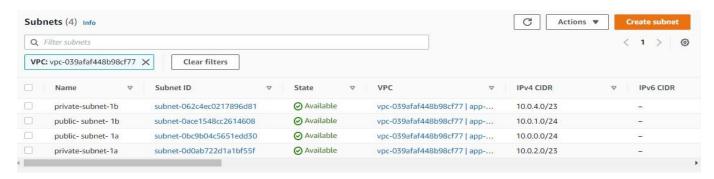
# AWS project: HJAYEJ Mohamed -IF5

# **Application VPC:**



#### Subnets:



### Public-subnet-1a:(AZ 1a):



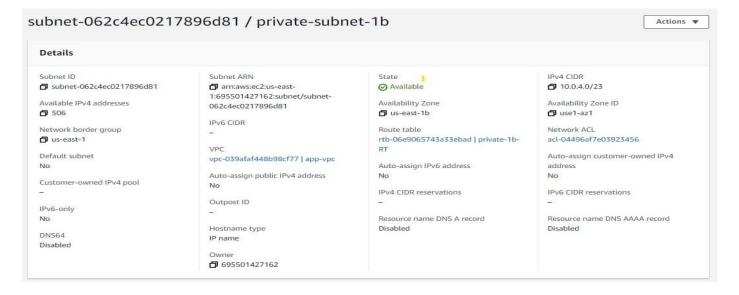
### Public-subnet-1b:(AZ 1b):



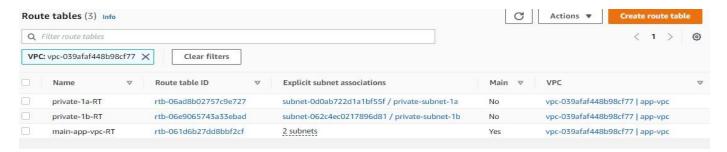
### Private-subnet-1a:(AZ 1a):



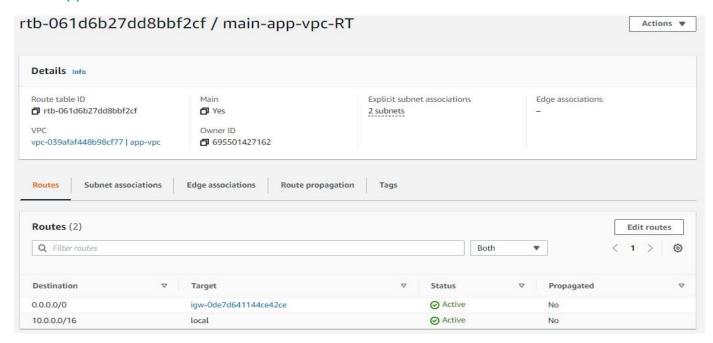
### Private-subnet-1b:(AZ 1b):



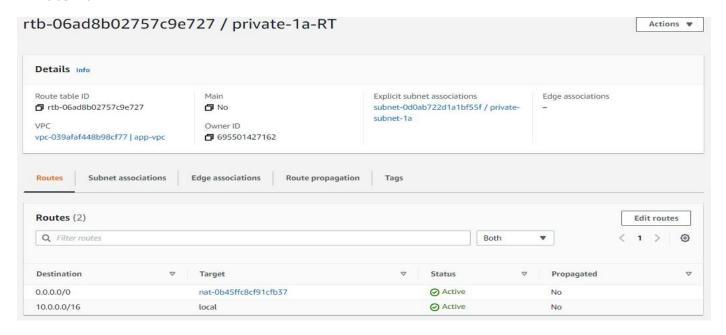
### **Route Tables:**



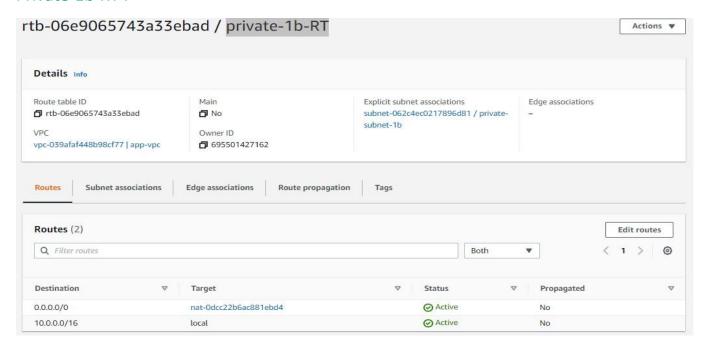
### Main application route table:



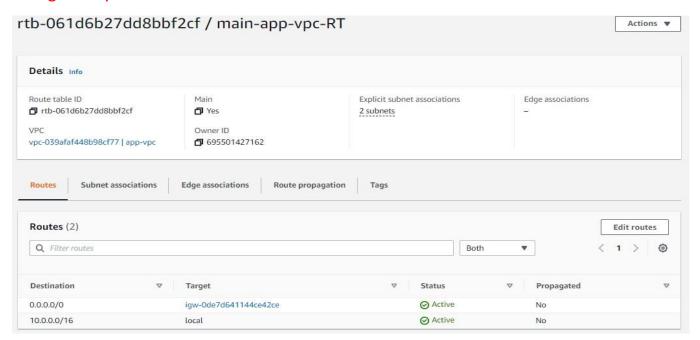
#### Private-1a-RT:



#### Private-1b-RT:



# NAT gateways:



### Security groups:

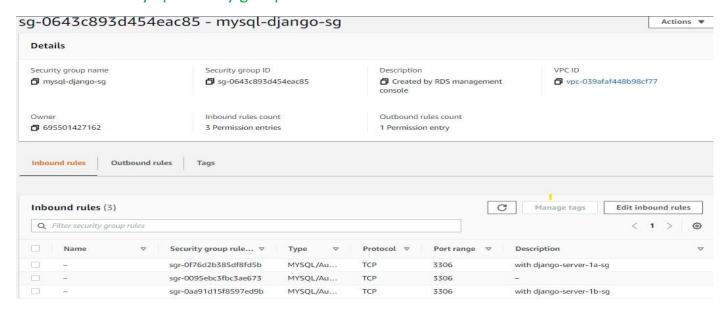
Private ec2:nginx-django-server-1a-security-group:



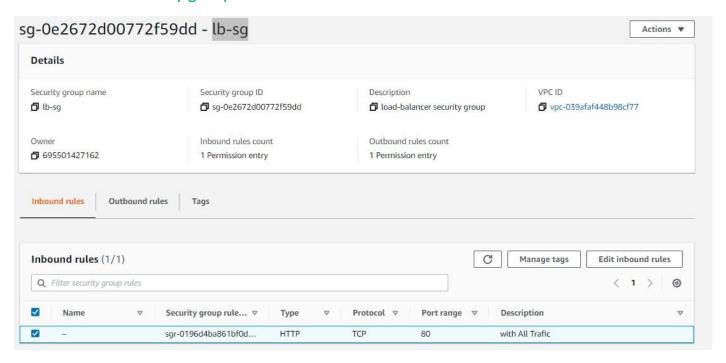
### Private ec2:nginx-django-server-1b-security-group:



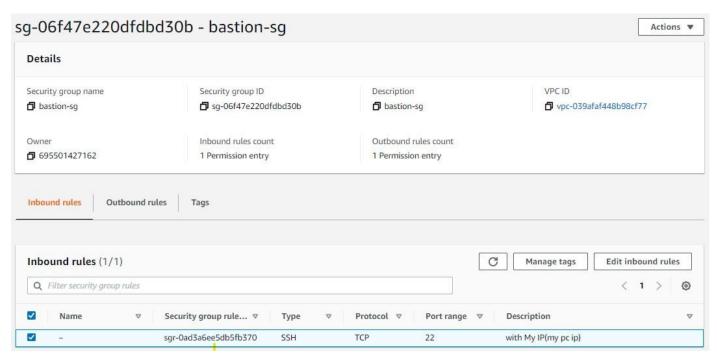
### Database RDS Mysql security group:



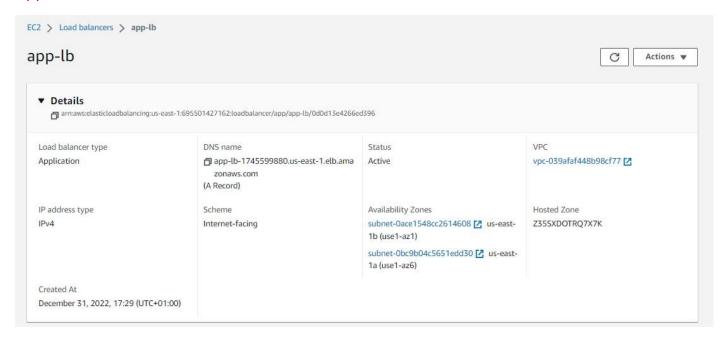
# Load balancer security group:



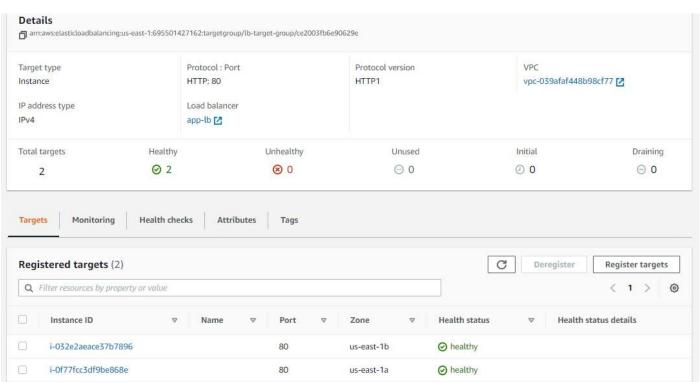
### Bastion security group:



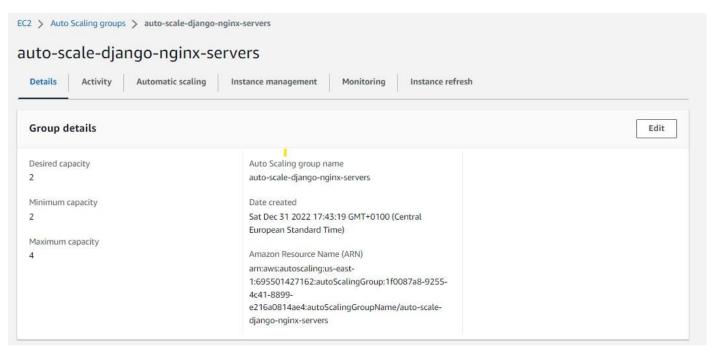
# Application load:

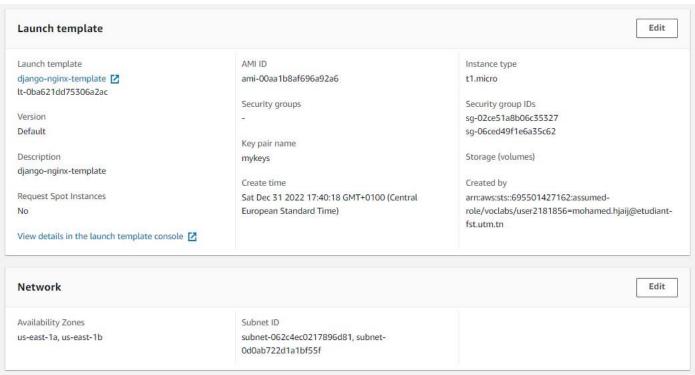


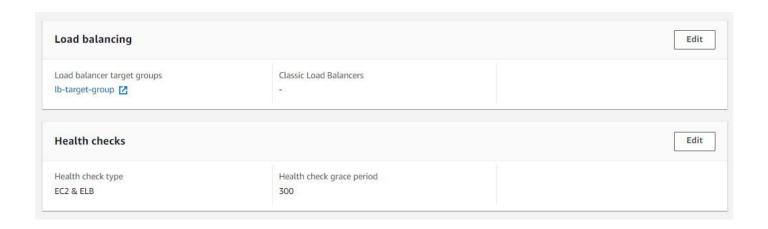
### Application load balancer target group:

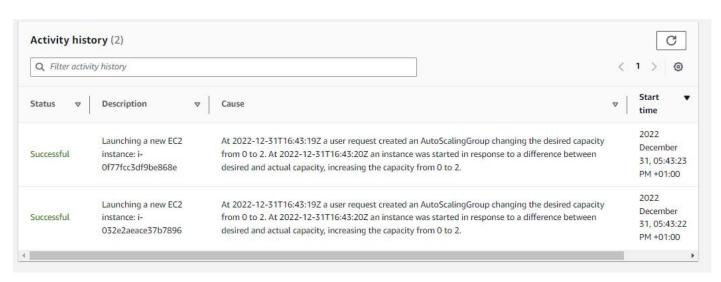


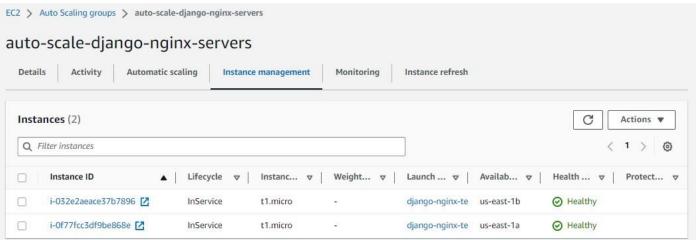
### Auto scale infos:



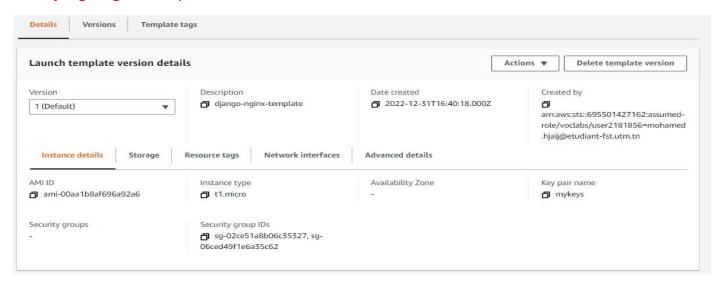




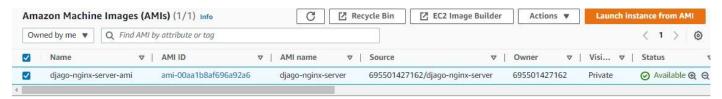




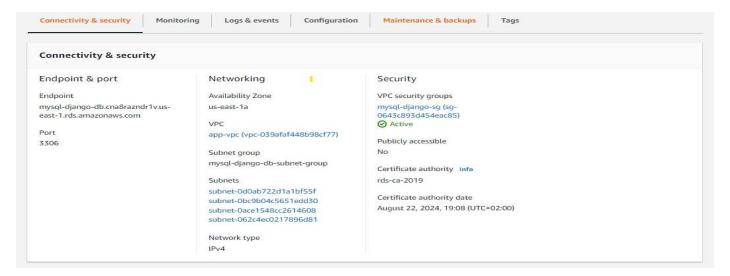
### Ec2-django-nginx template:



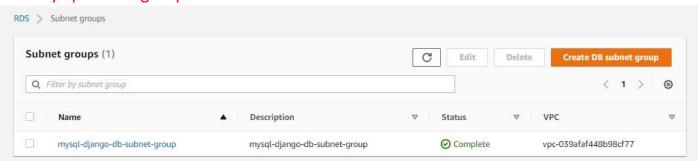
### Ec2 django-nginx- amazon machine image:



#### Mysql RDS DB:



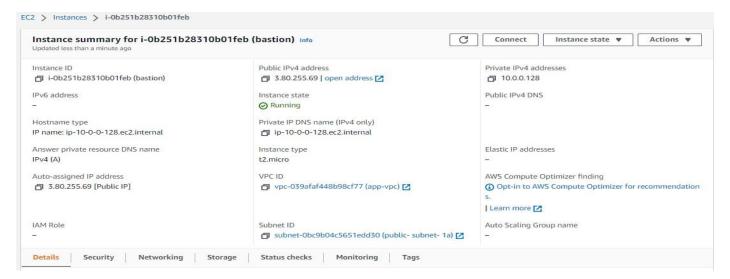
### RDS Mysql subnet groups:



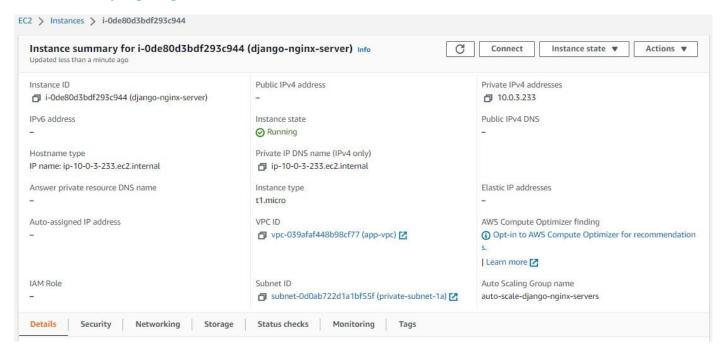
#### Instances:



#### **Bastion instance:**



### Private Ec2 django-nginx instance:



#### Connection ssh: (bastion-ec2 private-ec2 RDS)

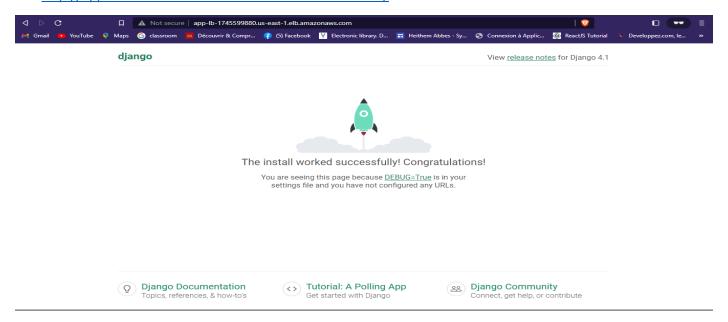
```
💹 ubuntu@ip-10-0-3-233: ~
PS C:\Users\mohamed> ssh -A ec2-user@3.80.255.69
Last login: Sat Dec 31 18:23:49 2022 from 197.29.139.161
                    Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-0-0-128 ~]$
[ec2-user@ip-10-0-0-128 ~]$
[ec2-user@ip-10-0-0-128 ~]$ ssh ubuntu@10.0.3.233
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-1026-aws x86_64)
 * Documentation: https://help.ubuntu.com
* Management:
                   https://landscape.canonical.com
 * Support:
                  https://ubuntu.com/advantage
 System information as of Sat Dec 31 18:24:00 UTC 2022
 System load: 0.0205078125
                                  Processes:
                                                         102
 Usage of /: 35.1% of 7.57GB
                                  Users logged in:
 Memory usage: 50%
                                  IPv4 address for eth0: 10.0.3.233
 Swap usage:
21 updates can be applied immediately.
10 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable
Last login: Sat Dec 31 18:24:00 2022 from 10.0.0.128
ubuntu@ip-10-0-3-233:~$
ubuntu@ip-10-0-3-233:~$ mysql -h mysql-django-db.cna8razndr1v.us-east-1.rds.amazonaws.com -u admin -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 124
Server version: 8.0.28 Source distribution
Copyright (c) 2000, 2022, Oracle and/or its affiliates.
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql> show databases;
 Database
 information_schema
 mydb
 mysql
 performance_schema
```

#### Aplication Configuration and test connectivity:

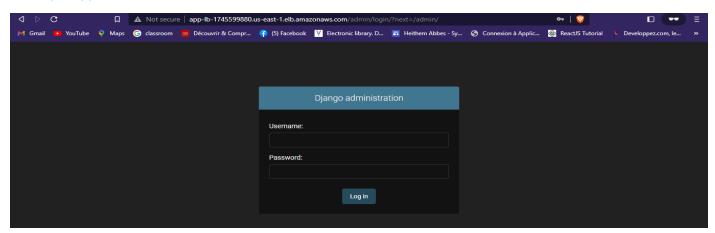
```
ubuntu@ip-10-0-3-233: ~
ubuntu@ip-10-0-3-233:~$ ls
ubuntu@ip-10-0-3-233:~$ ls aws
aws blog echosystem.config.json manage.py
ubuntu@ip-10-0-3-233:∾$ ls aws/aws
                                               requirements.txt
             __pycache
                         asgi.py middle.py
 init__.py
                                               settings.py urls.py wsgi.py
ubuntu@ip-10-0-3-233:~$
ubuntu@ip-10-0-3-233:~$ pm2 list
  id
       name
                                        2
                                                status
                             mode
                                                                        memory
                                                            cpu
 0
       django with pm2
                             fork
                                        0
                                                online
                                                            0%
                                                                        36.8mb
ubuntu@ip-10-0-3-233:~$ ping www.google.com
PING www.google.com (172.253.122.104) 56(84) bytes of data.
64 bytes from bh-in-f104.1e100.net (172.253.122.104): icmp seq=1 ttl=49 time=2.70 ms
64 bytes from bh-in-f104.1e100.net (172.253.122.104): icmp_seq=2 ttl=49 time=2.13 ms
64 bytes from bh-in-f104.1e100.net (172.253.122.104): icmp_seq=3 ttl=49 time=2.14 ms
64 bytes from bh-in-f104.1e100.net (172.253.122.104): icmp_seq=4 ttl=49 time=2.16 ms
64 bytes from bh-in-f104.1e100.net (172.253.122.104): icmp_seq=5 ttl=49 time=2.12 ms
^C
--- www.google.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4007ms
rtt min/avg/max/mdev = 2.124/2.251/2.703/0.226 ms
ubuntu@ip-10-0-3-233:~$
ubuntu@ip-10-0-3-233:∼$ cat /etc/nginx/sites-available/django-server.conf
server {
    listen 80;
    listen [::]:80;
    location / {
        proxy_pass http://0.0.0.0:8000;
ubuntu@ip-10-0-3-233:∾$ curl 0.0.0.0:80
<!doctype html>
<html lang="en-us" dir="ltr">
    <head>
        <meta charset="utf-8">
        <title>The install worked successfully! Congratulations!</title>
        <meta name="viewport" content="width=device-width, initial-scale=1">
        <link rel="stylesheet" href="/static/admin/css/fonts.css">
        <style>
          html {
```

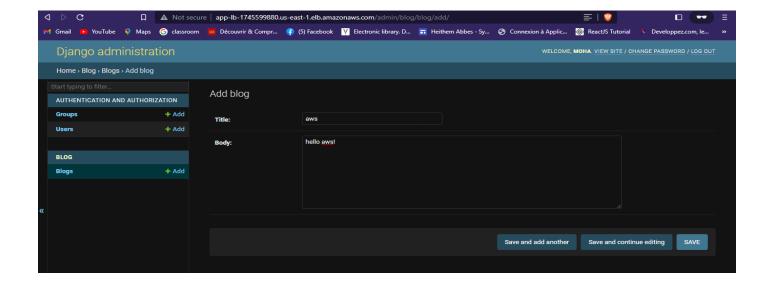
### Application:

url: http://app-lb-1745599880.us-east-1.elb.amazonaws.com/



url: http://app-lb-1745599880.us-east-1.elb.amazonaws.com/admin





Merci..