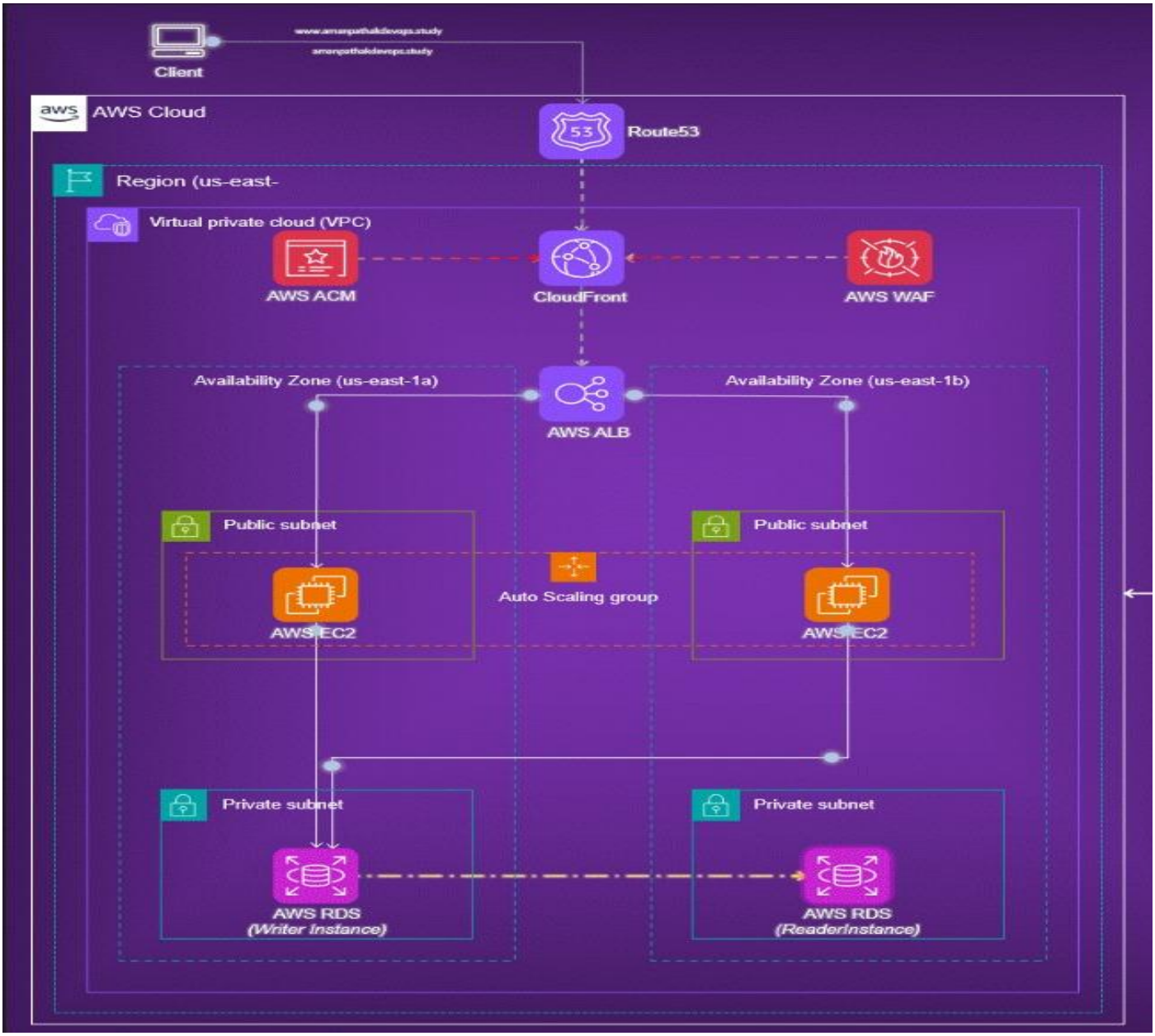
Two Tier Architecture

Task:

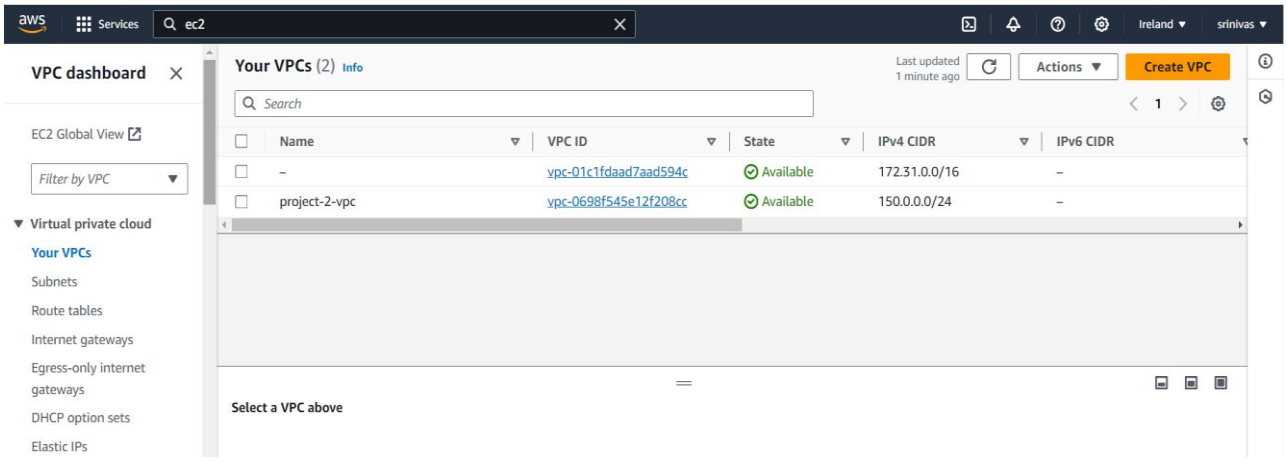


Required AWS Services:

1) Virtual Private Cloud.
2) Elastic cloud Compute.
3) Load Balancer.
4) Auto- Scaling Group.
5) Relational Database.
6) CloudFront.
7) ACM.
8) Route 53.

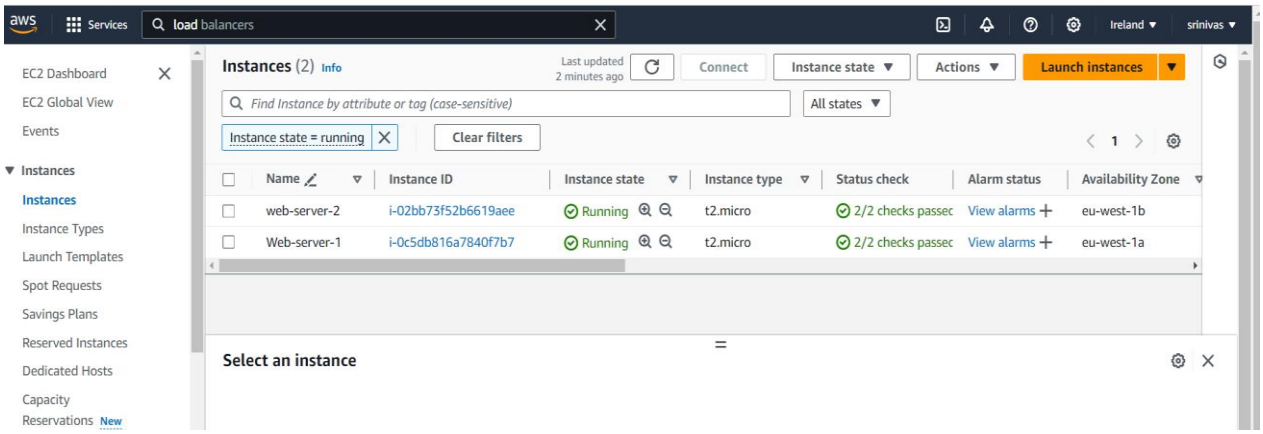
1) Virtual Private Cloud:

1. Login into your AWS Account and Search for VPC on Search Box.
2. Click on Create VPC & Subnets (public - 2 & Private – 2 in two AZ).
3. Create Two Routables Named it as Public-rout & private-route.
4. Create Internet Gateway and Attach it to your VPC.
5. Go to edit routes in the Public-routable and Add IGW in inbound rules.
6. Create a NAT gateway and add routes in private-Routable.



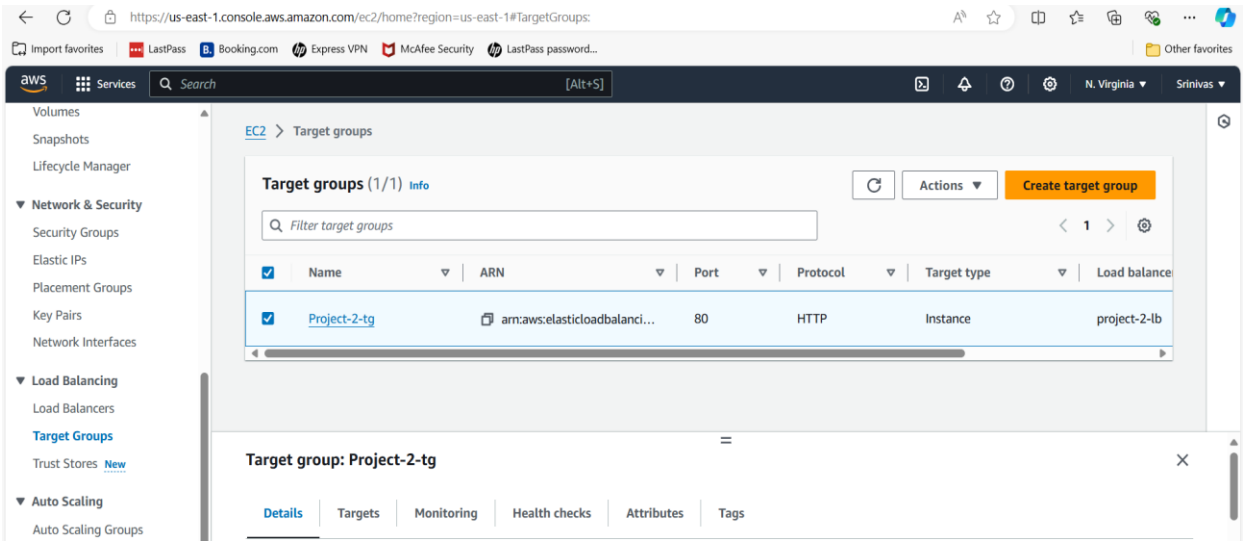
2) Elastic Cloud Compute (EC2):

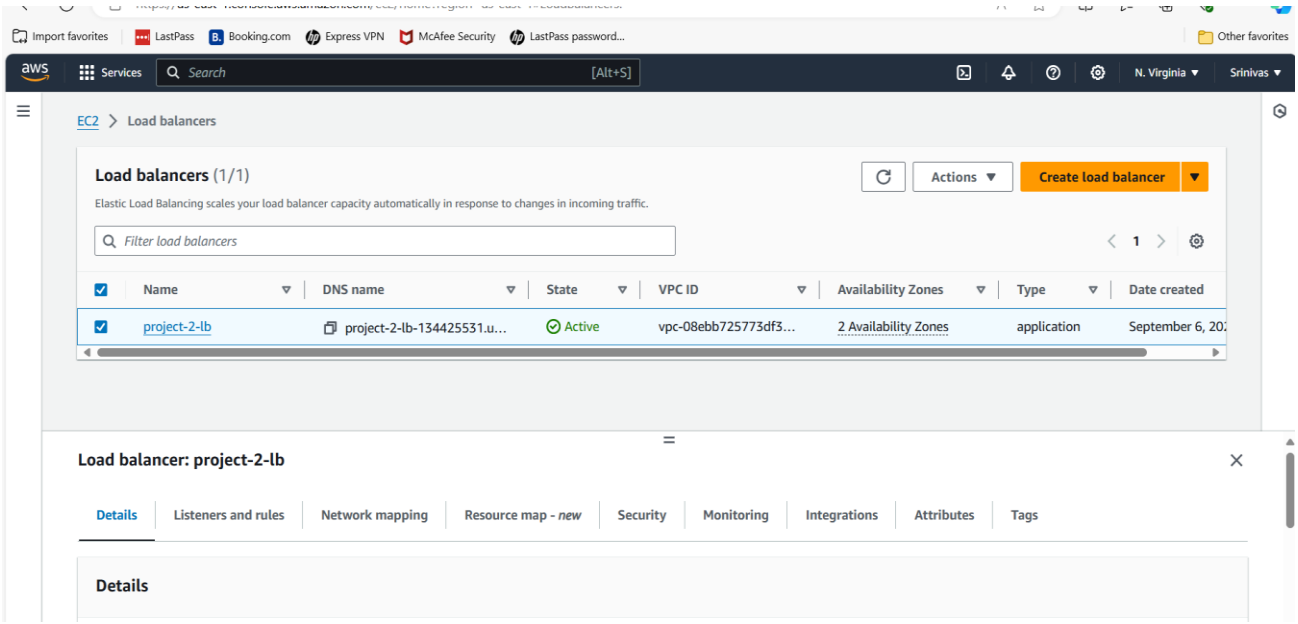
1. Go & Click on Launch Instance.
2. Launch Two Ec2 instances (web Server-1 & web Server-2) in two different AZ.
3. Some Snapshots are attached below.



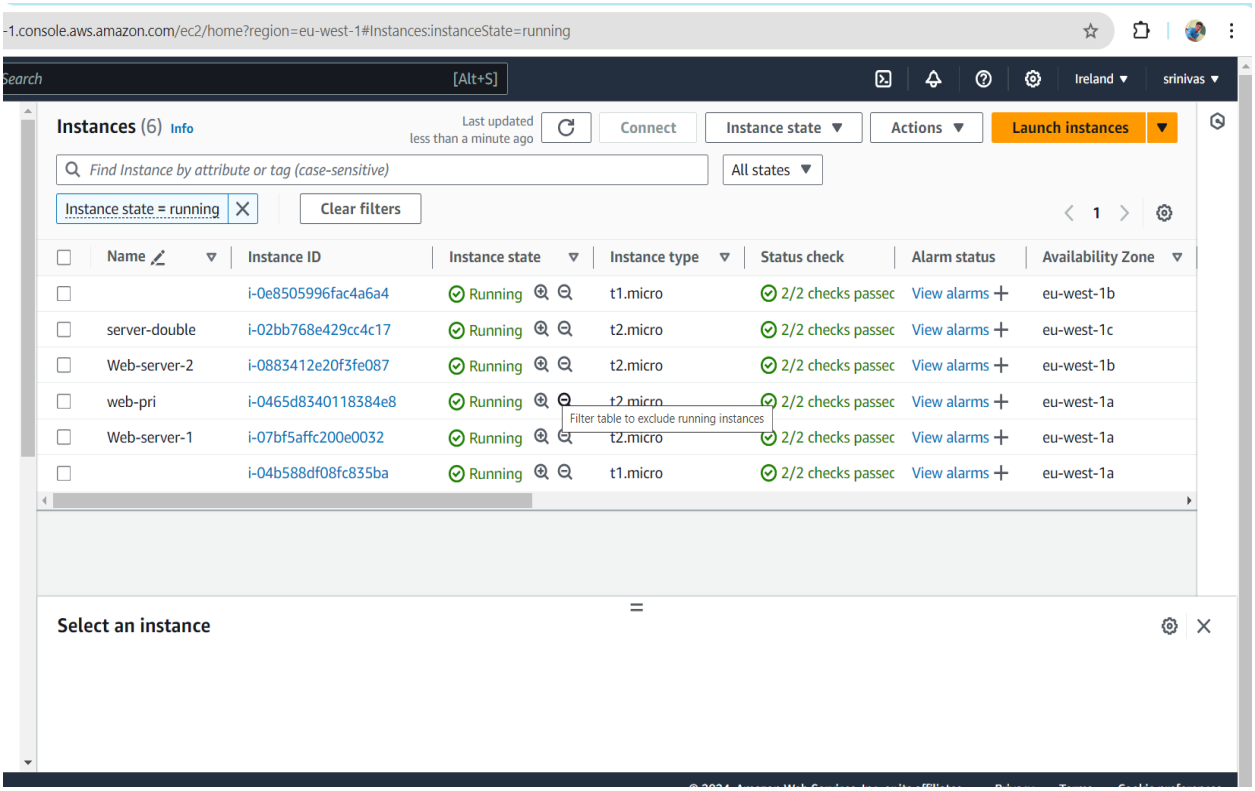
3) Elastic Load Balancer:

1. Firstly, We Need to Create a Target Group and Target Group Attachment.
2. Create a Load Balancer and Include Two EC2 Instances.



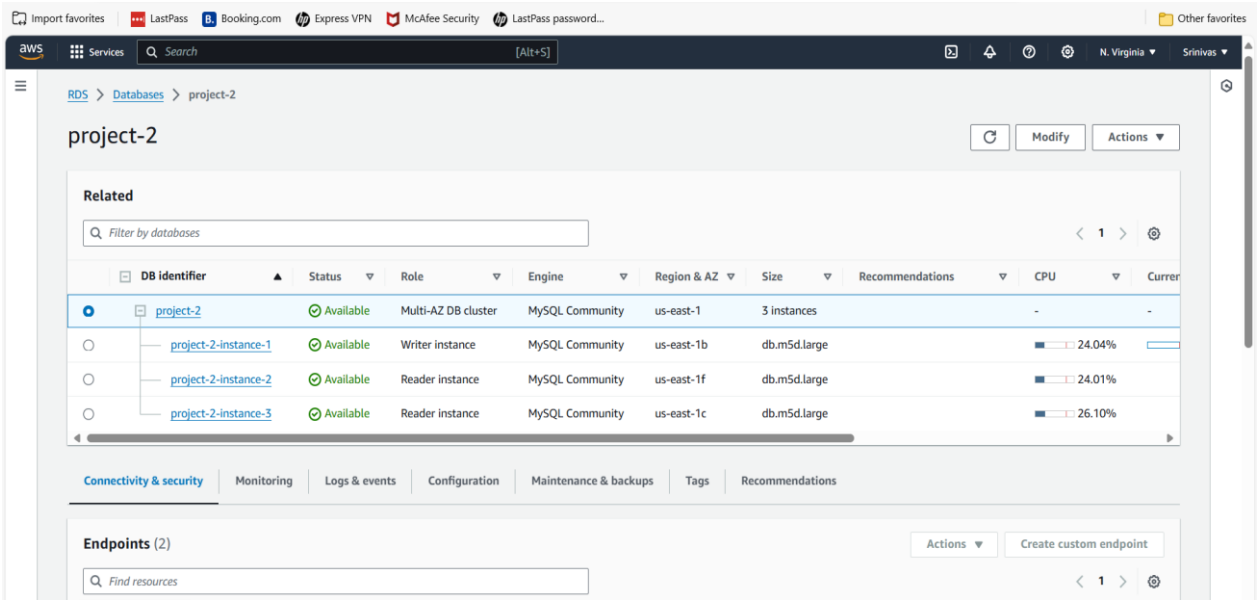


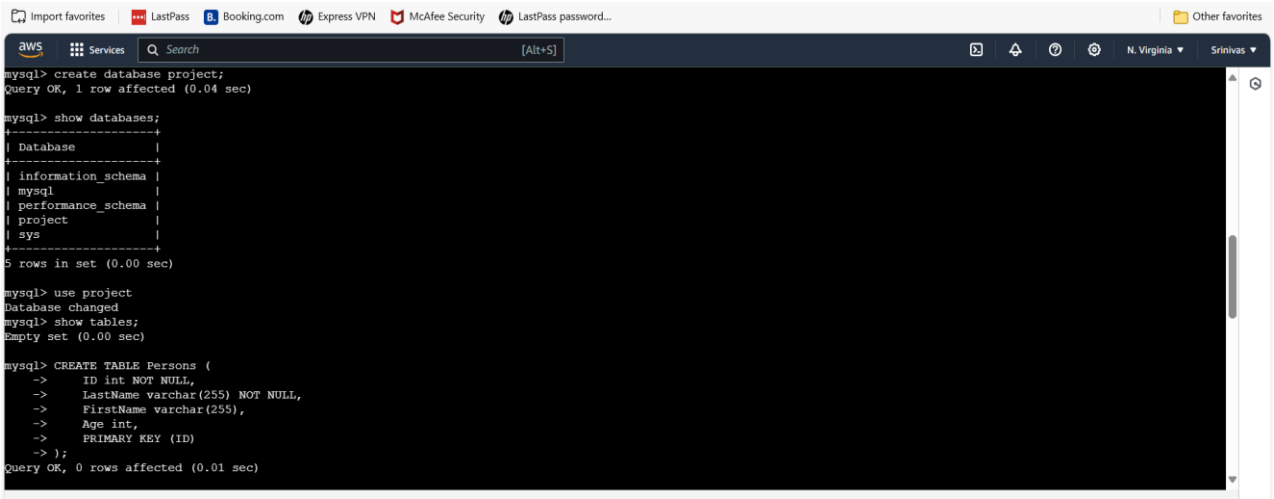
4) EC2 Instances After Auto Scaling:



5) Amazon RDS:

1. Create a Database in Mutli-Cluster AZ and including Private Subnet which is in Available in AZ.
2. Take write Instance endpoint and paste it in Git bash and connect to My-Sql Server.
3. Create a Database Name is Project.
4. Create a Table Name is Person.
5. Insert Data into Table.
6. Some Snapshots are Attached Below.



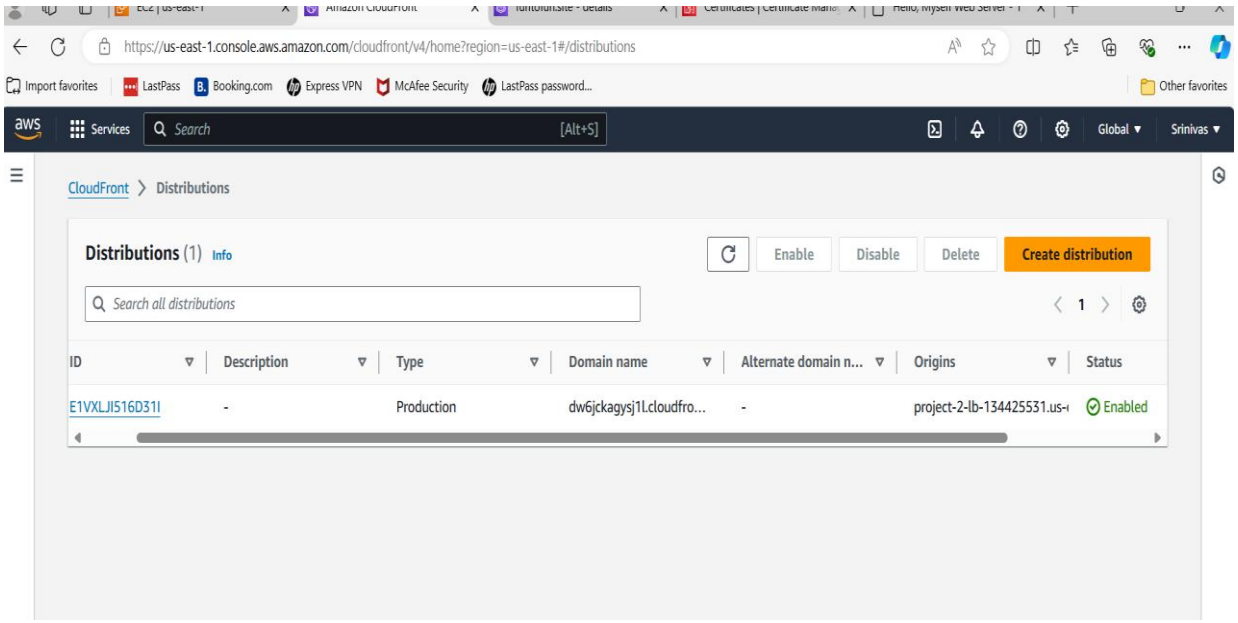


```
mysql> use project;
Database changed
mysql> INSERT INTO Persons (ID, LastName, FirstName, Age)
    -> VALUES ('101', 'Motu', 'Pathulu', '22');
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Persons (ID, LastName, FirstName, Age)
    -> VALUES ('102', 'chota', 'Bheem', '23');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Persons (ID, LastName, FirstName, Age)
    -> VALUES ('103', 'chota', 'Bheem', '23');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Persons (ID, LastName, FirstName, Age)
    -> VALUES ('103', 'chowdary', 'Sinchan', '19');
ERROR 1062 (23000): Duplicate entry '103' for key 'Persons.PRIMARY'
mysql> INSERT INTO Persons (ID, LastName, FirstName, Age)
    -> VALUES ('104', 'chowdary', 'Sinchan', '19');
Query OK, 1 row affected (0.00 sec)
```

```
rresponds to your MySQL server version for the right syntax to use near 'Persons'
at line 1
mysql> select * from Persons;
+-----+----------+-----------+------+
| ID  | LastName | FirstName | Age  |
+-----+----------+-----------+------+
| 101 | Motu     | Pathulu   |   22 |
| 102 | chota    | Bheem     |   23 |
| 103 | chota    | Bheem     |   23 |
| 104 | chowdary | Sinchan   |   19 |
+-----+----------+-----------+------+
4 rows in set (0.00 sec)

mysql>
```

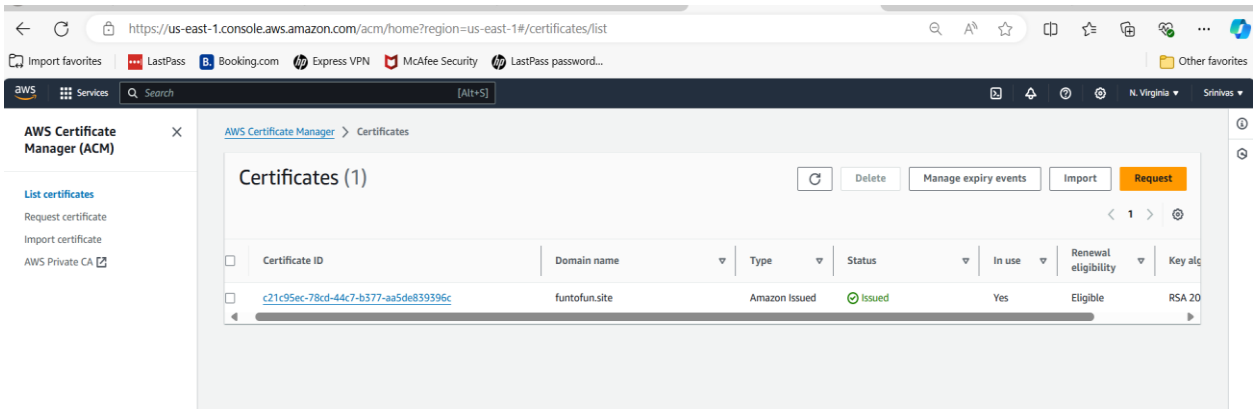
6) Amazon CloudFront:

1. Create a CloudFront and Enable WAF for Protection.
2. Create Amazon Certificate Management and add it to CloudFront.

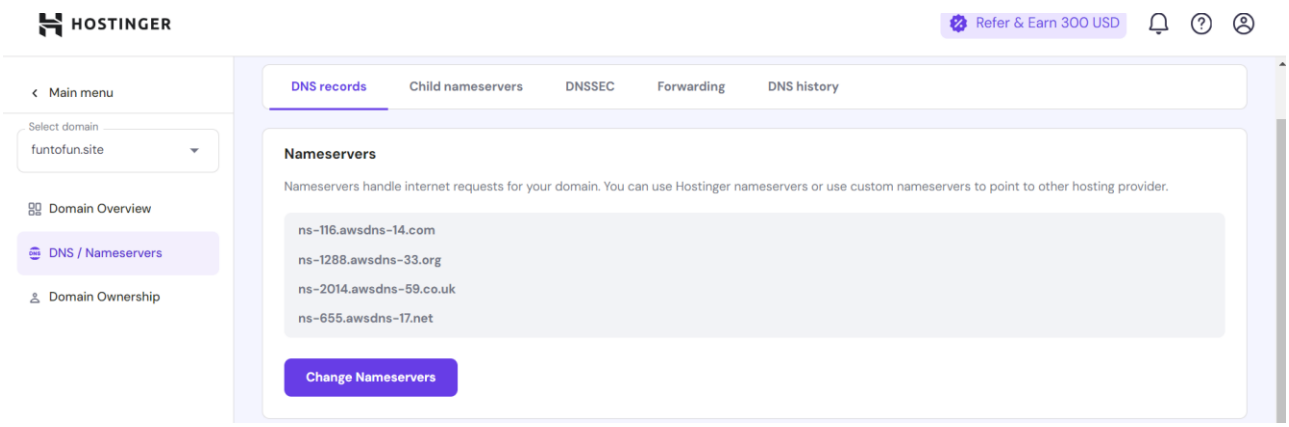


7) Amazon Certification Management:

1. Create a ACM and add it to CloudFront.

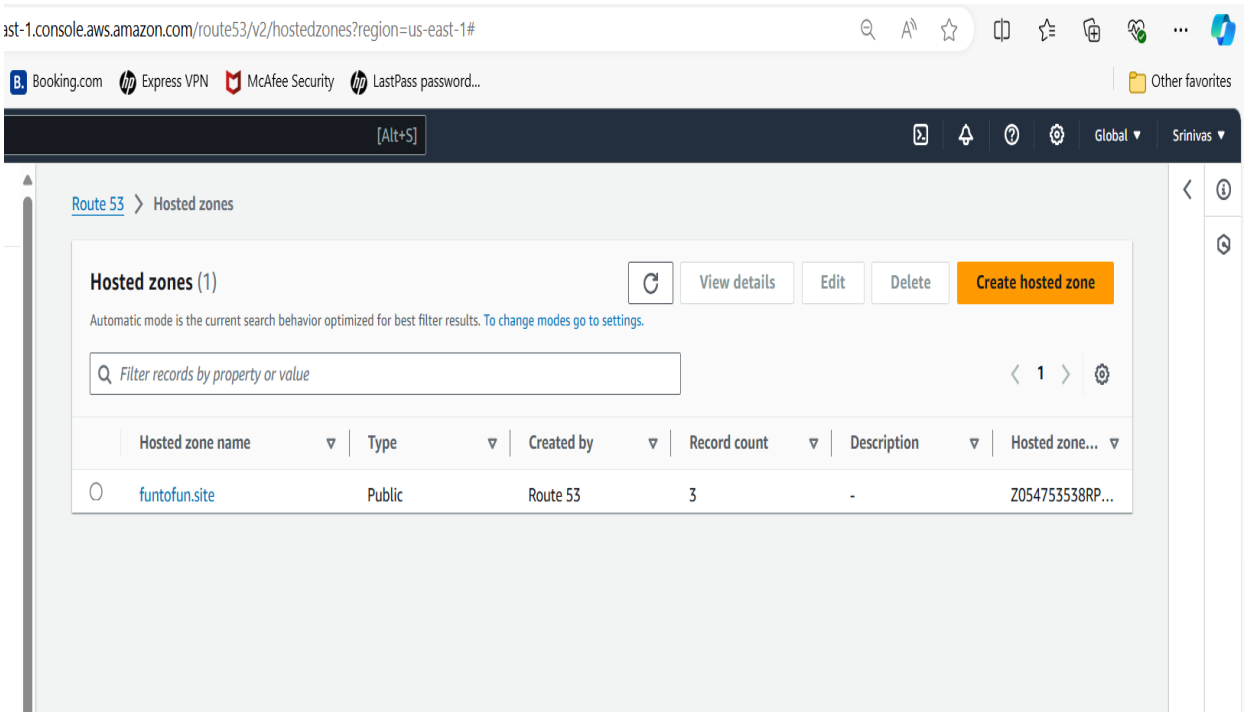


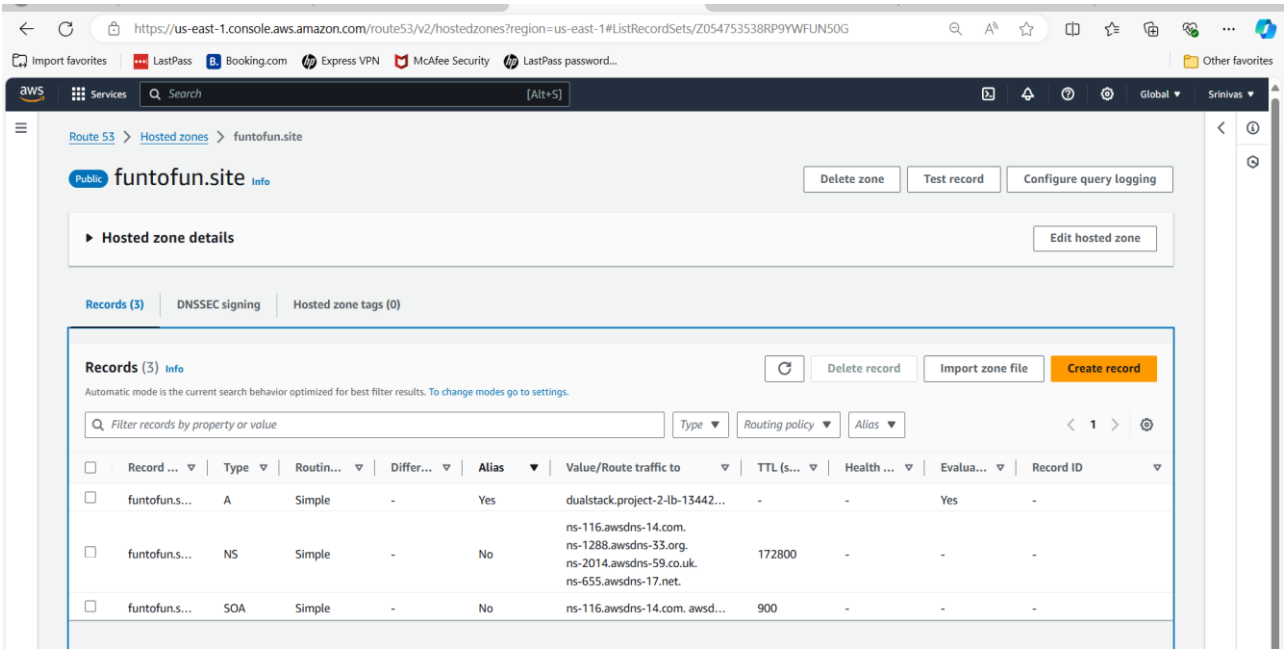
Domain Name System:



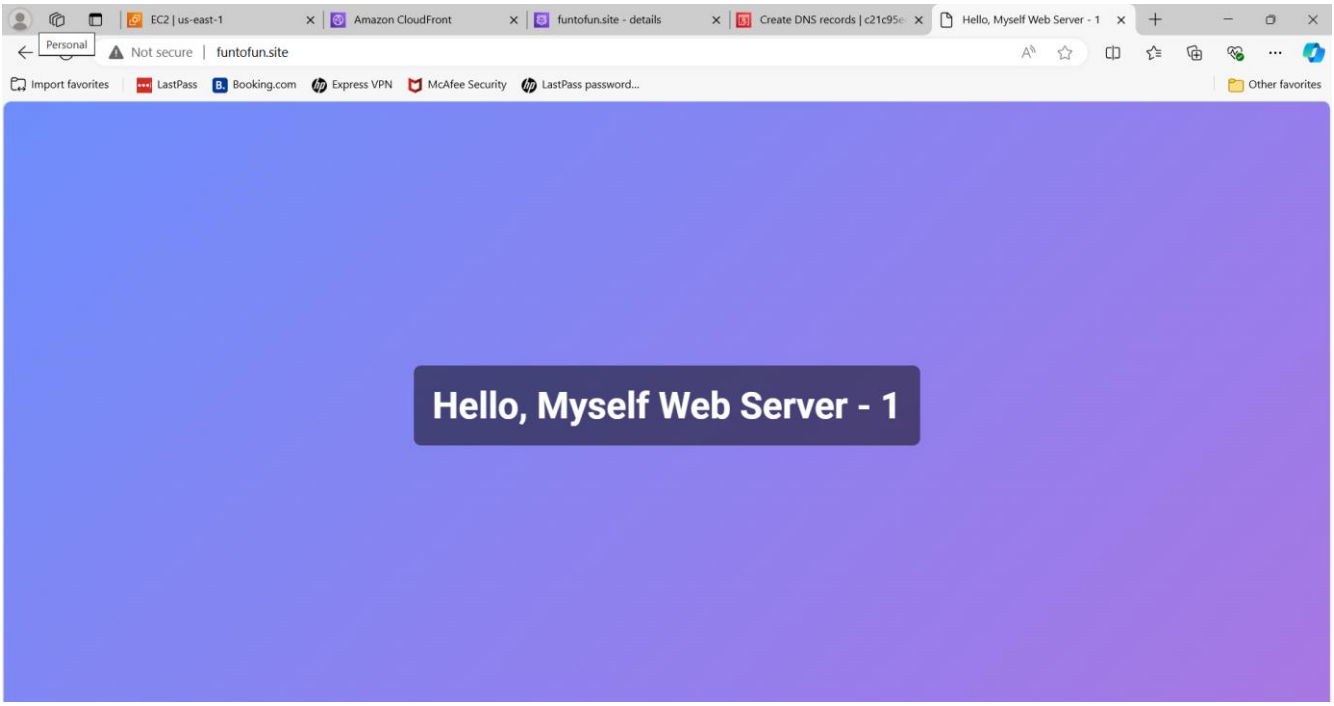
8) Amazon Route 53:

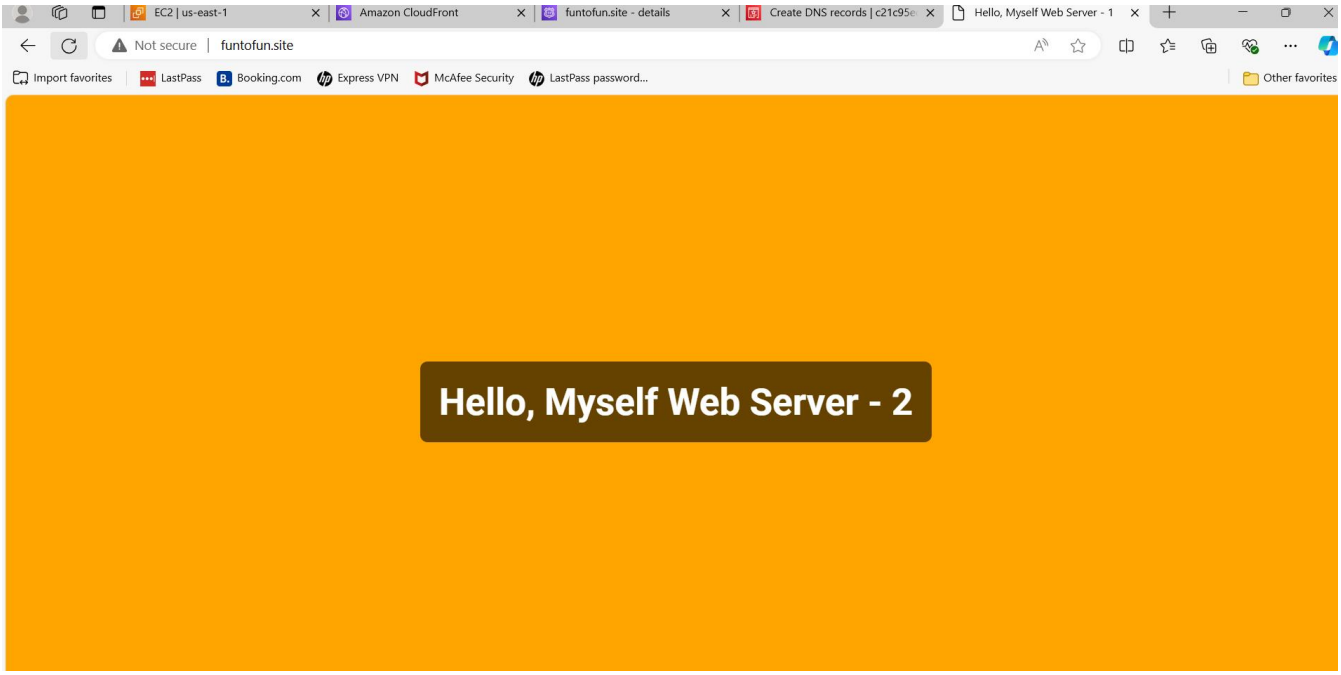
1. Create a route 53 and Create a CNAME record in Route 53.
2. Change The Name Servers in DNS (Hostlinger) with your Route 53 Name Server.




https://us-east-1.console.aws.amazon.com/route53/v2/hostedzones?region=us-east-1#ListRecordSets/Z054753538RP9YWFUN50G
Import favorites
LastPass
Booking.com
Express VPN
McAfee Security
LastPass password...
Other favorites
aws
Services
Search
[Alt+S]
Global
Srinivas
Route 53 > Hosted zones > funtofun.site
Public
funtofun.site
Info
Delete zone
Test record
Configure query logging
Hosted zone details
Edit hosted zone
Records (3)
DNSSEC signing
Hosted zone tags (0)
Records (3) Info
Automatic mode is the current search behavior optimized for best filter results. To change modes go to settings.
Delete record
Import zone file
Create record
Filter records by property or value
Type
Routing policy
Alias
Record ...
Type
Routin...
Differ...
Alias
Value/Route traffic to
TTL (s...
Health ...
Evalua...
Record ID
funtofun.s... A Simple - Yes dualstack.project-2-lb-13442... - - Yes -
funtofun.s... NS Simple - No ns-116.awsdns-14.com. ns-1288.awsdns-33.org. ns-2014.awsdns-59.co.uk. ns-655.awsdns-17.net. 172800 - - -
funtofun.s... SOA Simple - No ns-116.awsdns-14.com. awsd... 900 - - -

Outputs:


EC2 | us-east-1
Amazon CloudFront
funtofun.site - details
Create DNS records | c21c95e
Hello, Myself Web Server - 1
Personal
Not secure
funtofun.site
Import favorites
LastPass
Booking.com
Express VPN
McAfee Security
LastPass password...
Other favorites
Hello, Myself Web Server - 1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Hello, Myself Web Server - 2