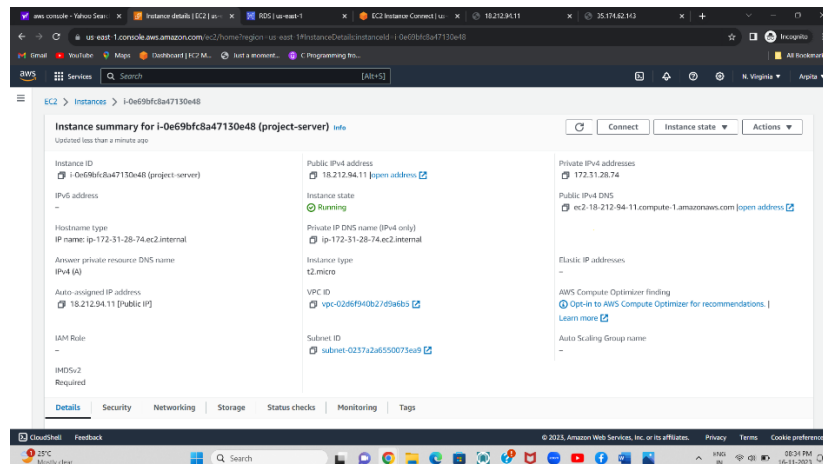
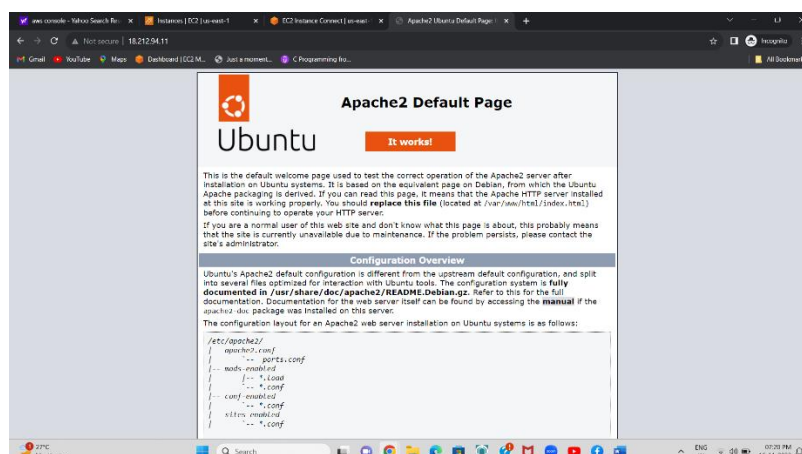
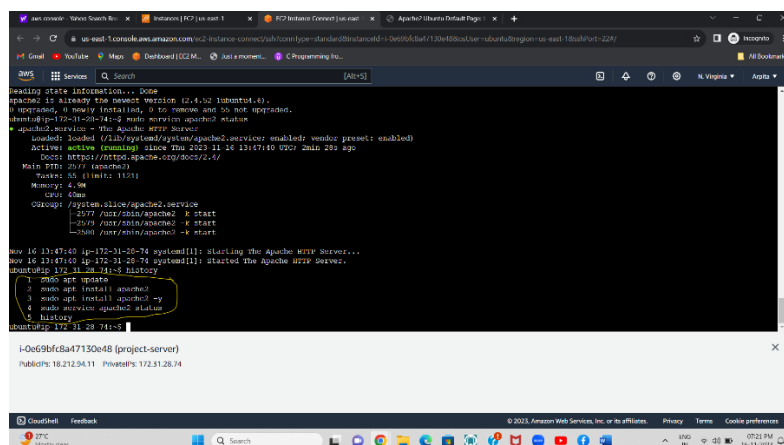


Project 1 Amazon Elastic Compute Cloud (Amazon EC2) provides scalable computing capacity in the Amazon Web Services (AWS) cloud. Using Amazon EC2 eliminates your need to invest in hardware up front so you can develop and deploy applications faster. You can use Amazon EC2 to launch as many or as few virtual servers as you need, configure security and networking, and manage storage. Amazon EC2 enables you to scale up or down to handle changes in requirements or spikes in popularity, reducing your need to forecast traffic.



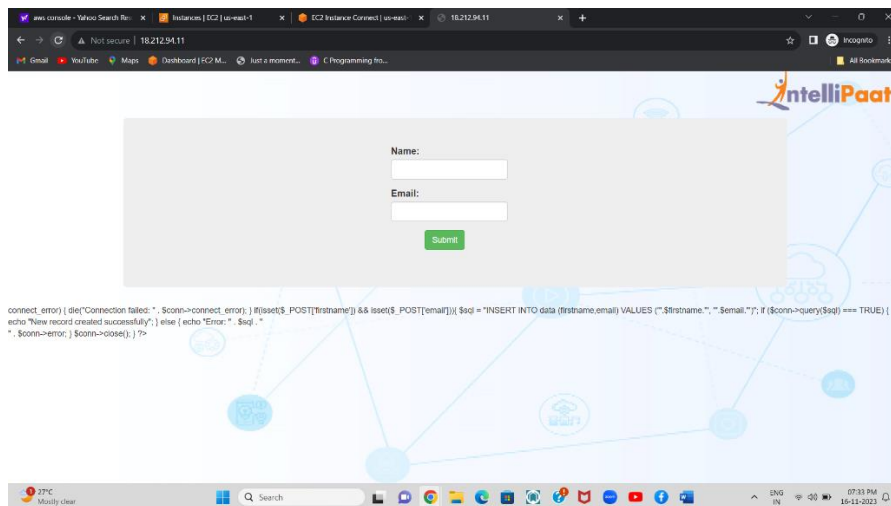
Step 1: Launch an EC2



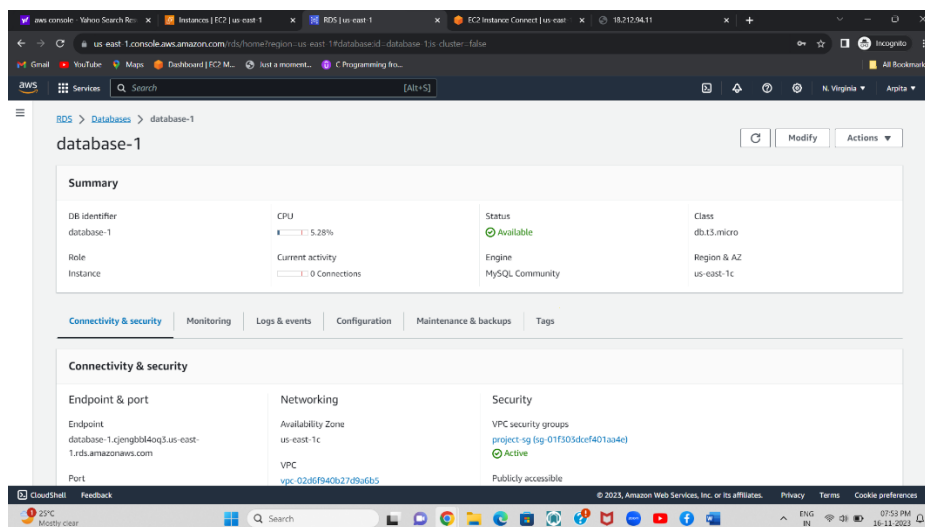
Step 2 : Install apache2 server

```
aws console - Yahoo Search - x Instances [EC2] us-east-1 x RDS [us-east-1] x EC2 Instance Connect [us-east-1] x 18.212.94.11 x 35.174.62.143 x +
us-east-1.console.aws.amazon.com/ec2-instance-connect/home?region=us-east-1&instanceId=i-0a7bdc8a71304880&hostKey=ubuntu@region-us-east-1&hostPort=22#/?
Gmail YouTube Maps Dashboard [EC2 M... Just a moment... C Programming fo...
AWS Services Search [Alt+S]
ubuntu@ip-172-31-26-74:~$ history
1 sudo apt update
2 sudo apt install apache2
3 sudo apt install apache2 -y
4 sudo service apache2 status
5 history
6 cd /var/www/html
7 /var/www/html$ ls
8 cd /var/www/html
9 git clone https://github.com/awwishwas/awspocproject1.git project1
10 clear
11 cd
12 git clone https://github.com/awwishwas/awspocproject1.git project1
13 ls
14 ls project1
15 pwd
16 ls
17 sudo cp -R /home/ubuntu/project1/* /var/www/html
18 cd /var/www/html
19 sudo rm index.html
20 ls
21 clear
22 cd
23 sudo add apt repository y ppa:ondrej/php
24 sudo apt install php8.0 mysql-client php8.0-mysql
25 sudo mysql -h database-1.cjengbb4oq3.us-east-1.rds.amazonaws.com -u admin -p
26 cd /var/www/html
27 ls
28 sudo nano index.php
29 cd
30 sudo mysql -h database-1.cjengbb4oq3.us-east-1.rds.amazonaws.com -u admin -p
31 clear
32 history
```

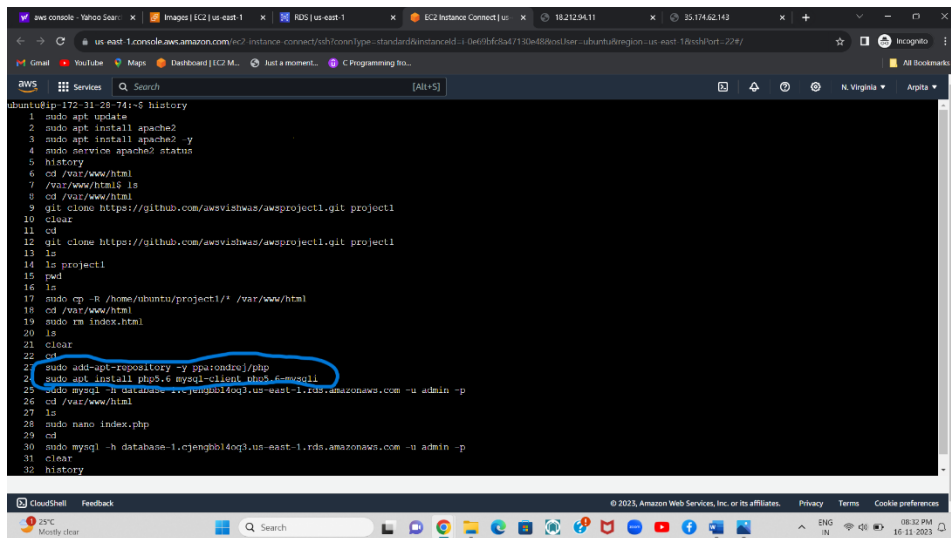
Step 3: Replace the file within the server



Step 4: Frontend page

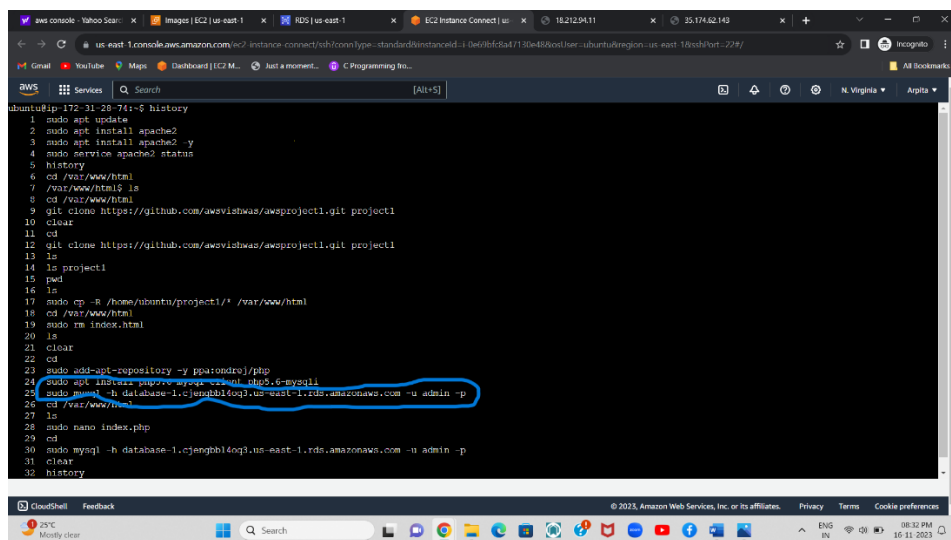


Step 5: Create RDS



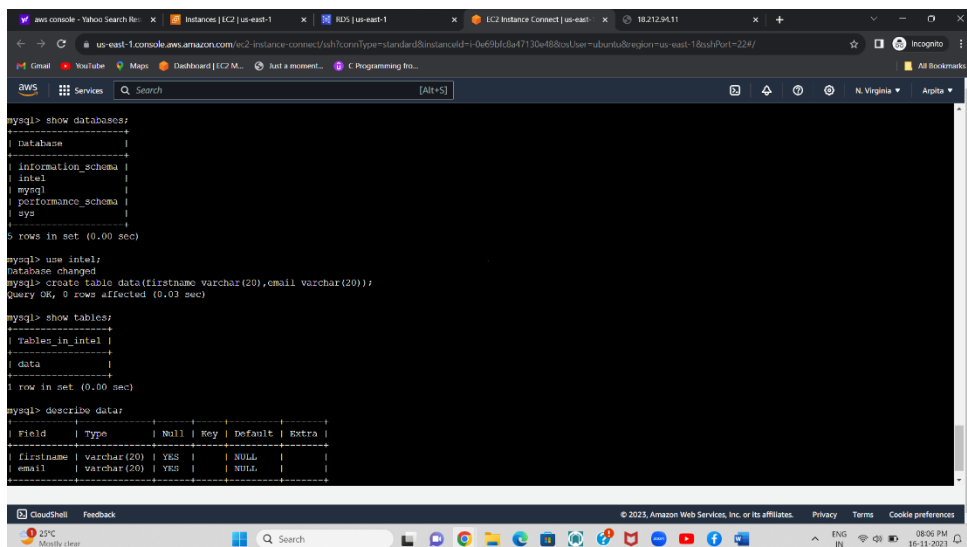
```
ubuntu@ip-172-31-28-74:~$ history
1 sudo apt update
2 sudo apt install apache2
3 sudo apt install apache2 -y
4 sudo service apache2 status
5 history
6 cd /var/www/html
7 /var/www/html$ ls
8 cd /var/www/html
9 git clone https://github.com/awsvishwas/awspocproject1.git project1
10 clear
11 cd
12 git clone https://github.com/awsvishwas/awspocproject1.git project1
13 ls
14 ls project1
15 pwd
16 ls
17 sudo cp -R /home/ubuntu/project1/* /var/www/html
18 cd /var/www/html
19 sudo rm index.html
20 ls
21 clear
22 cd
23 sudo add-apt-repository -y ppa:ondrej/php
24 sudo apt install php5.6 mysql-client php5.6-mysql
25 sudo mysql -h database-1.cjenghbl4oq3.us-east-1.rds.amazonaws.com -u admin -p
26 cd /var/www/html
27 ls
28 sudo nano index.php
29 cd
30 sudo mysql -h database-1.cjenghbl4oq3.us-east-1.rds.amazonaws.com -u admin -p
31 clear
32 history
```

Step 6: Install packages



```
ubuntu@ip-172-31-28-74:~$ history
1 sudo apt update
2 sudo apt install apache2
3 sudo apt install apache2 -y
4 sudo service apache2 status
5 history
6 cd /var/www/html
7 /var/www/html$ ls
8 cd /var/www/html
9 git clone https://github.com/awsvishwas/awspocproject1.git project1
10 clear
11 cd
12 git clone https://github.com/awsvishwas/awspocproject1.git project1
13 ls
14 ls project1
15 pwd
16 ls
17 sudo cp -R /home/ubuntu/project1/* /var/www/html
18 cd /var/www/html
19 sudo rm index.html
20 ls
21 clear
22 cd
23 sudo add-apt-repository -y ppa:ondrej/php
24 sudo apt install php5.6 mysql-client php5.6-mysql
25 sudo mysql -h database-1.cjenghbl4oq3.us-east-1.rds.amazonaws.com -u admin -p
26 cd /var/www/html
27 ls
28 sudo nano index.php
29 cd
30 sudo mysql -h database-1.cjenghbl4oq3.us-east-1.rds.amazonaws.com -u admin -p
31 clear
32 history
```

Step 7: Connect to EC2 instances



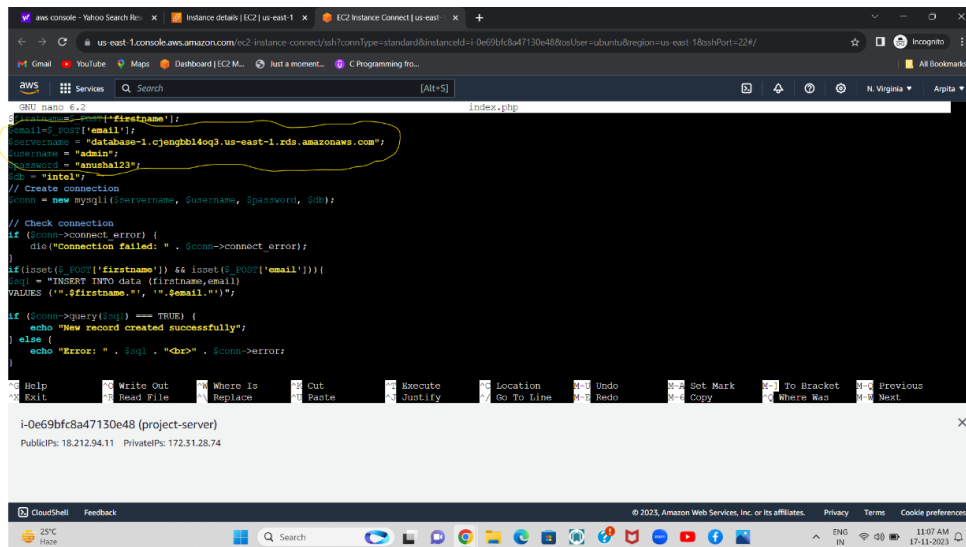
```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| intel |
| mysql |
| performance_schema |
| sys |
+-----+
6 rows in set (0.00 sec)

mysql> use intel;
Database changed
mysql> create table data(firstname varchar(20),email varchar(20));
Query OK, 0 rows affected (0.03 sec)

mysql> show tables;
+-----+
| Tables_in_intel |
+-----+
| data |
+-----+
1 row in set (0.00 sec)

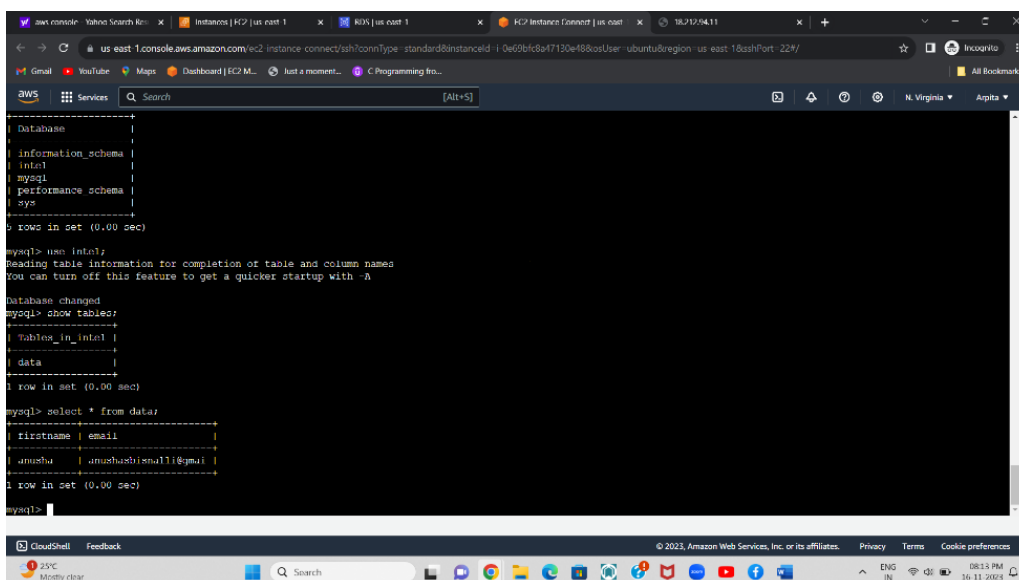
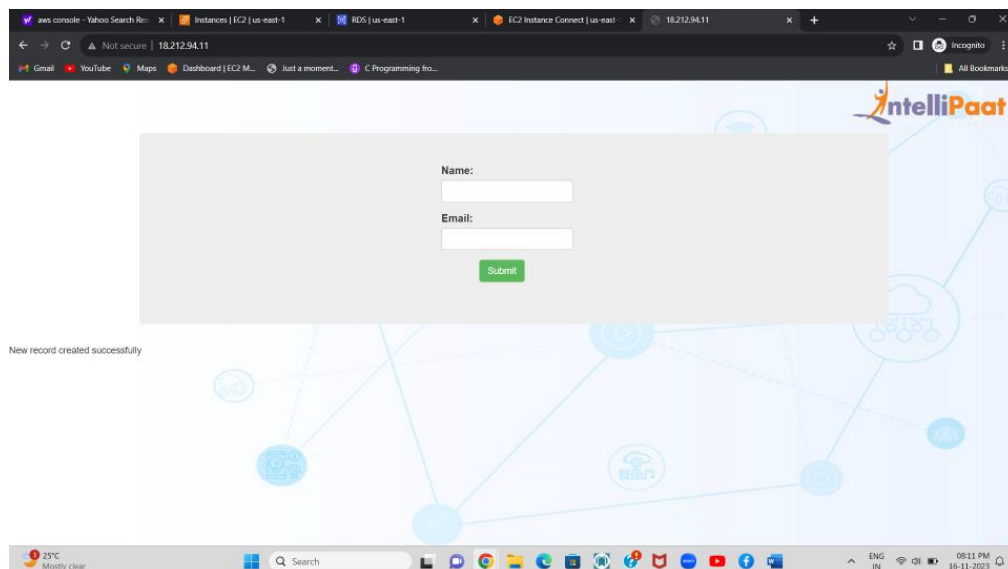
mysql> describe data;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| firstname | varchar(20) | YES | NULL | | |
| email | varchar(20) | YES | NULL | | |
+-----+
```

Step 8: Create the table and describe the data.

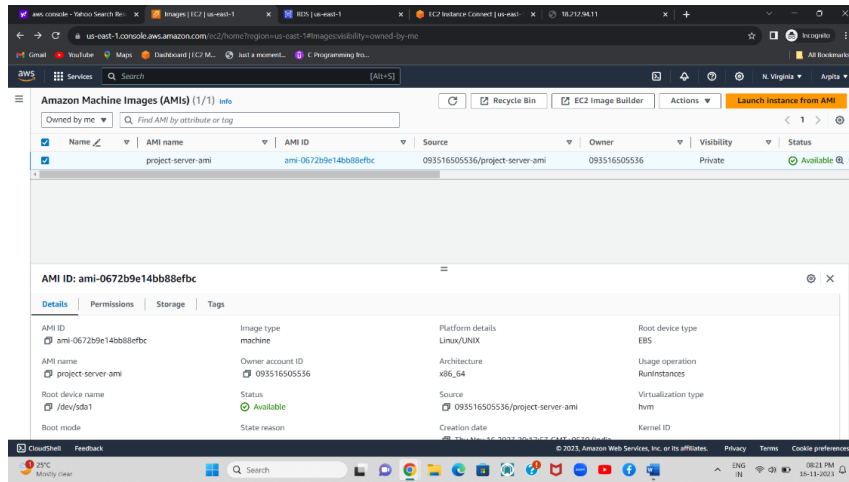


```
#!/usr/bin/env php
<code>
</code>
index.php
<code>
</code>
i-0e69bfc8a47130e48 (project-server)
Public IPs: 18.212.94.11 Private IPs: 172.31.28.74
<code>
</code>
CloudShell Feedback
© 2023, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences
25°C Haze
```

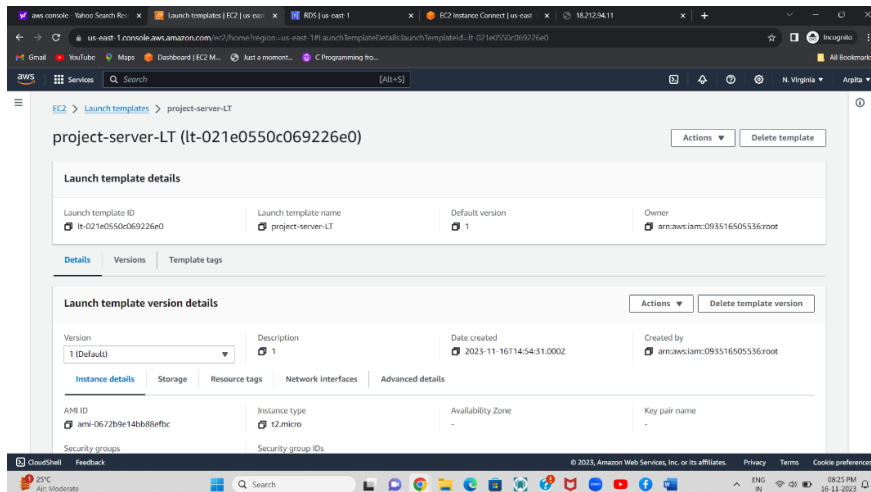
Step 9: Edit user & password in index.php file



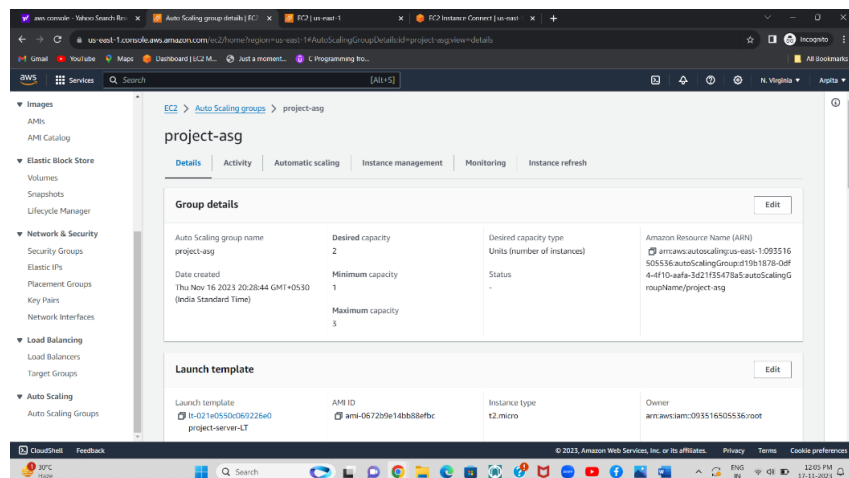
Step 10: Data is stored in rds



Step 11: Create ami from project server



Step 12: Create launch template



Step 13: Create Autoscaling group

Instances (1/3) info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
project-server	i-0e69bfc8a47130e48	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	ec2-18-212-94-1
ASG-server	i-0d4ee7be2596bae6c	Running	t2.micro	2/2 checks passed	No alarms	us-east-1f	ec2-35-174-62-1
ASG-server	i-03050c541cf53c110	Running	t2.micro	2/2 checks passed	No alarms	us-east-1e	ec2-54-227-161

Instance: i-0e69bfc8a47130e48 (project-server)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

Instance summary info

Instance ID: i-0e69bfc8a47130e48 (project-server)

Public IPv4 address: 18.212.94.11 [Open address](#)

Private IPv4 addresses: 172.31.28.74

Public IPv4 DNS: ec2-18-212-94-11.compute-1.amazonaws.com [Open address](#)

Instance state: Running

Private IP DNS name (IPv4 only):

Hostnames type:

Instance summary for i-0d4ee7be2596bae6c (ASG-server) info

Updated less than a minute ago

Instance ID: i-0d4ee7be2596bae6c (ASG-server)

Public IPv4 address: 35.174.62.143 [Open address](#)

Private IPv4 addresses: 172.31.64.46

Public IPv4 DNS: ec2-35-174-62-143.compute-1.amazonaws.com [Open address](#)

Instance state: Running

Private IP DNS name (IPv4 only): ip-172-31-64-46.ec2.internal

Instance type: t2.micro

VPC ID: vpc-02d6f940b27d9a6b5 [Open address](#)

Subnet ID: subnet-0f8a2ed6be1b3594b [Open address](#)

Auto Scaling Group name: project-asg

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

Instance summary for i-03050c541cf53c110 (ASG-server) info

Updated less than a minute ago

Instance ID: i-03050c541cf53c110 (ASG-server)

Public IPv4 address: 54.227.161.226 [Open address](#)

Private IPv4 addresses: 172.31.62.32

Public IPv4 DNS: ec2-54-227-161-226.compute-1.amazonaws.com [Open address](#)

Instance state: Running

Private IP DNS name (IPv4 only): ip-172-31-62-32.ec2.internal

Instance type: t2.micro

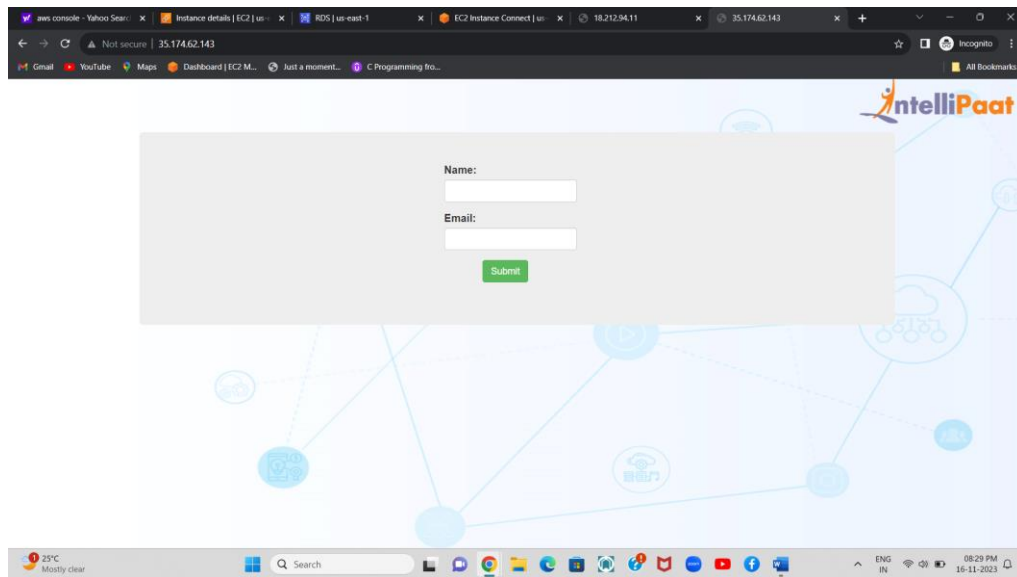
VPC ID: vpc-02d6f940b27d9a6b5 [Open address](#)

Subnet ID: subnet-0f2378df100c462c7 [Open address](#)

Auto Scaling Group name: project-asg

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

Step 14: Autoscaling servers



Step 15: Webpage from autoscaling server