**Project 1 - Deploying a Multi-Tier Website Using AWS EC2**

**Steps to solve:**

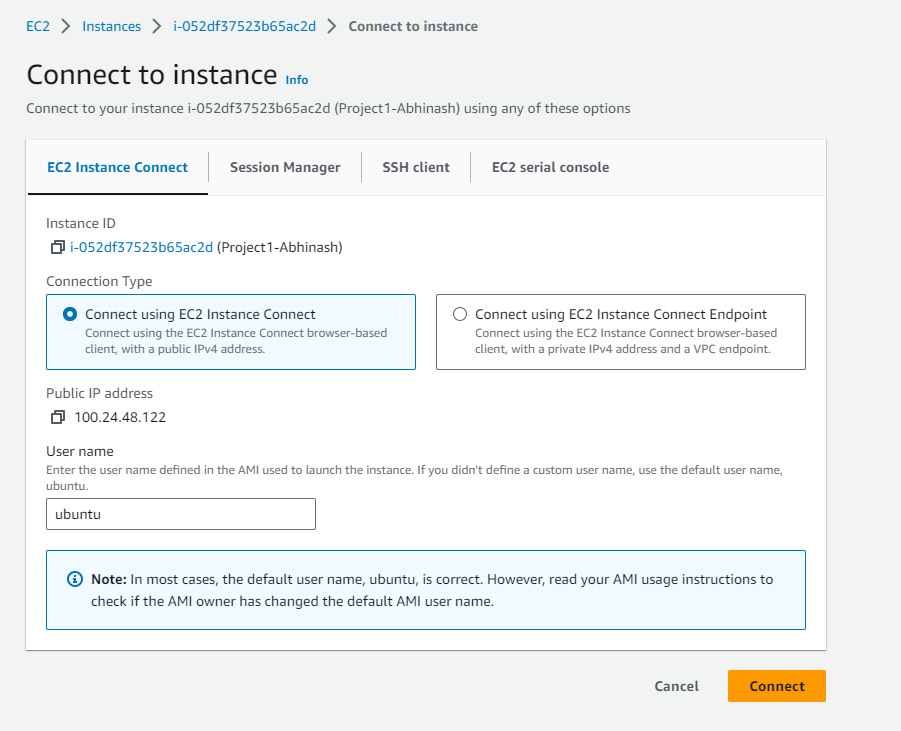
1. Launch an EC2 Instance  
2. Enable Auto Scaling on these instances (minimum 2)  
3. Create an RDS Instance  
4. Create Database & Table in RDS Instance  
• Database name: intel  
• Table name: data  
• Database password: intel123  
5. Change hostname in website  
6. Allow traffic from EC2 to RDS Instance  
7. Allow all-traffic to EC2 instance

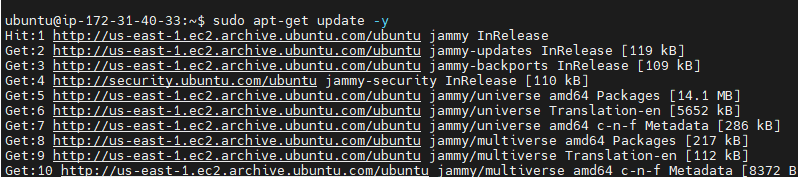
**Steps 1:**  I have Created a server name with Project1-Abhinash > And where allowed allow traffic and install Apache2 server, And MySQL Server using below command

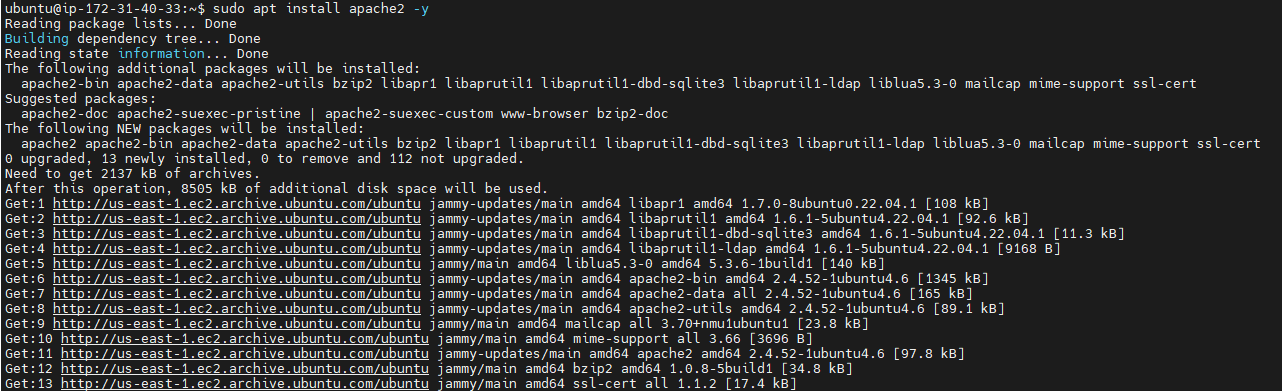
#sudo apt-get update -y

# sudo apt install apache2 -y

#sudo apt-get install mysql-server

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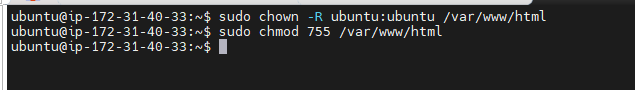
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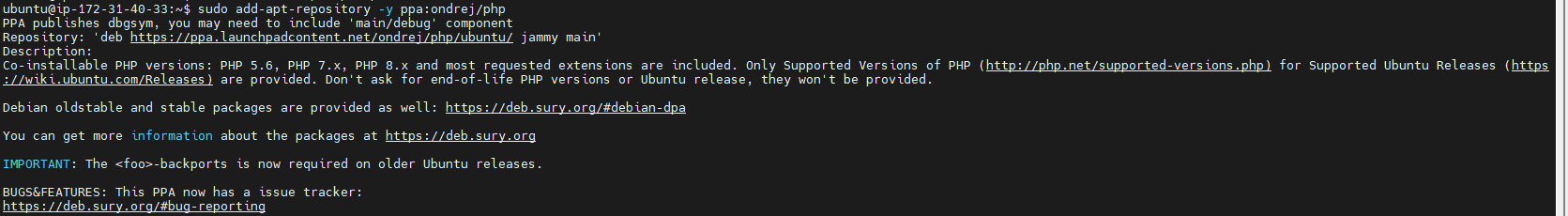
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**Steps 2:**  Now changed Folder Owner Permission and mode permission using below commands

# sudo chown -R ubuntu:ubuntu /var/www/html

#sudo chmod 755 /var/www/html

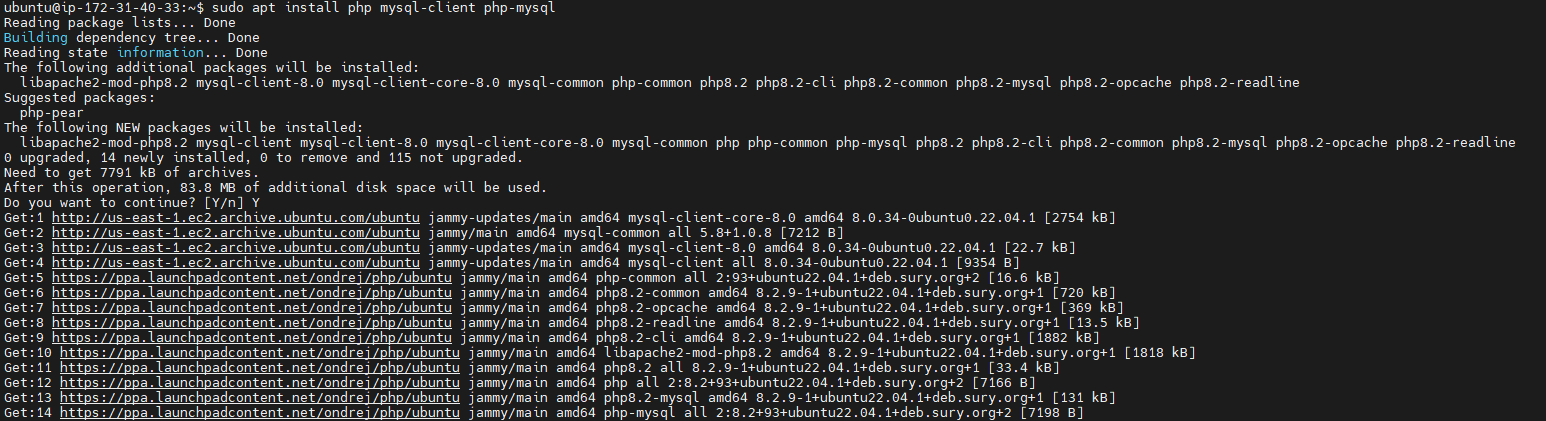
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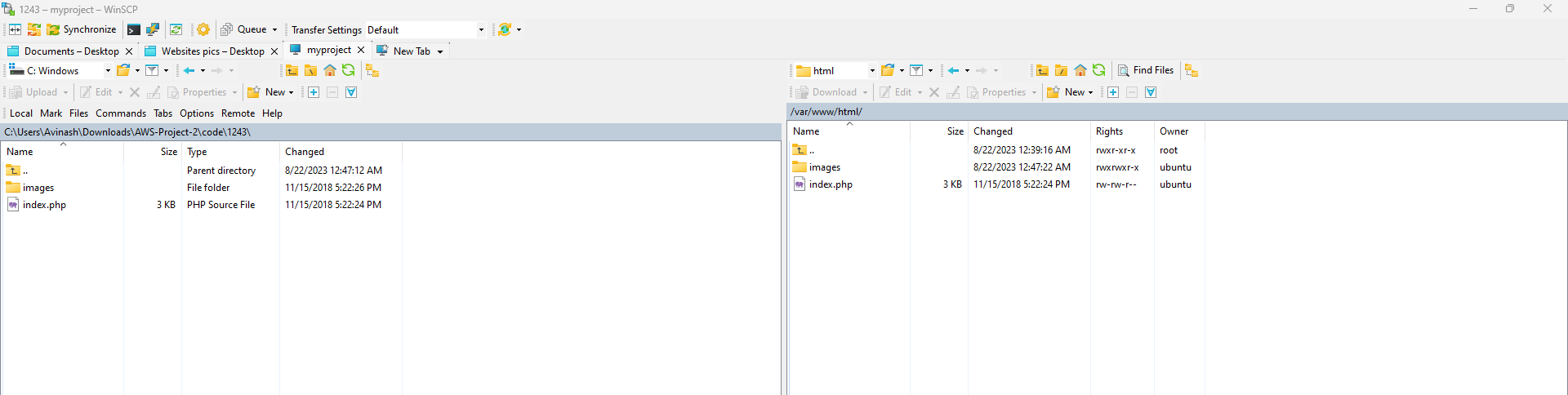
**Steps 3 :**  Now change Html webserver to PHP server

#sudo add-apt-repository -y ppa:ondrej/php

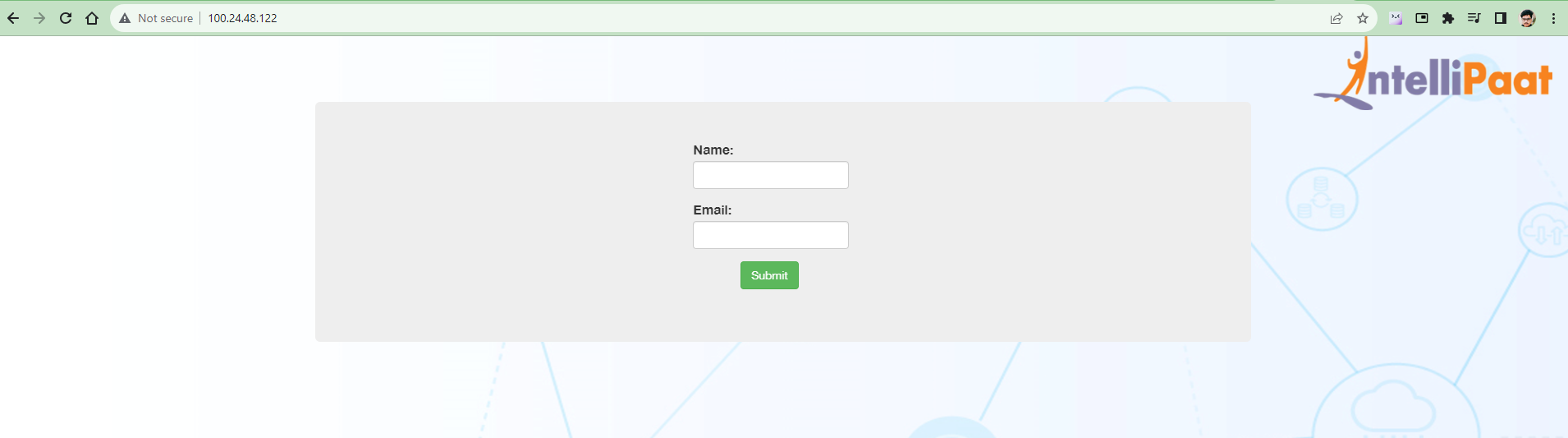
#sudo apt install php mysql-client php-mysql

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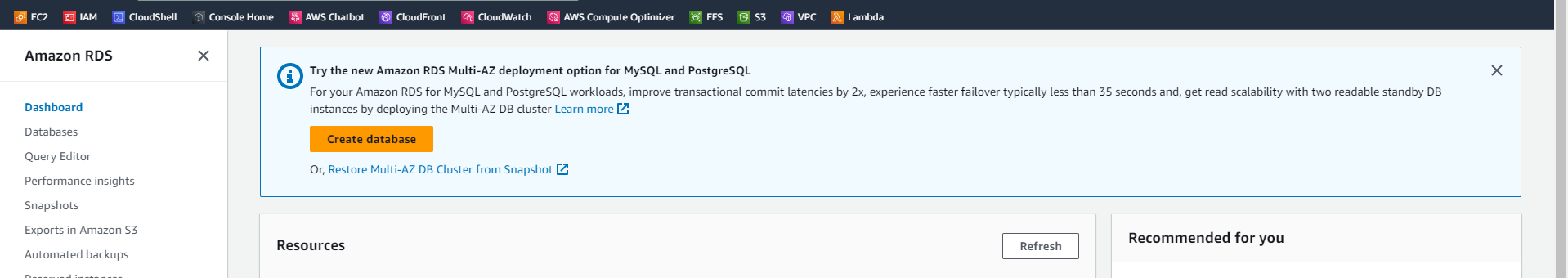
**Steps 4 :**  Now copy source code file to downloaded directory to Webserver /var/www/html using a tool “WINSCP” and delete index.html file

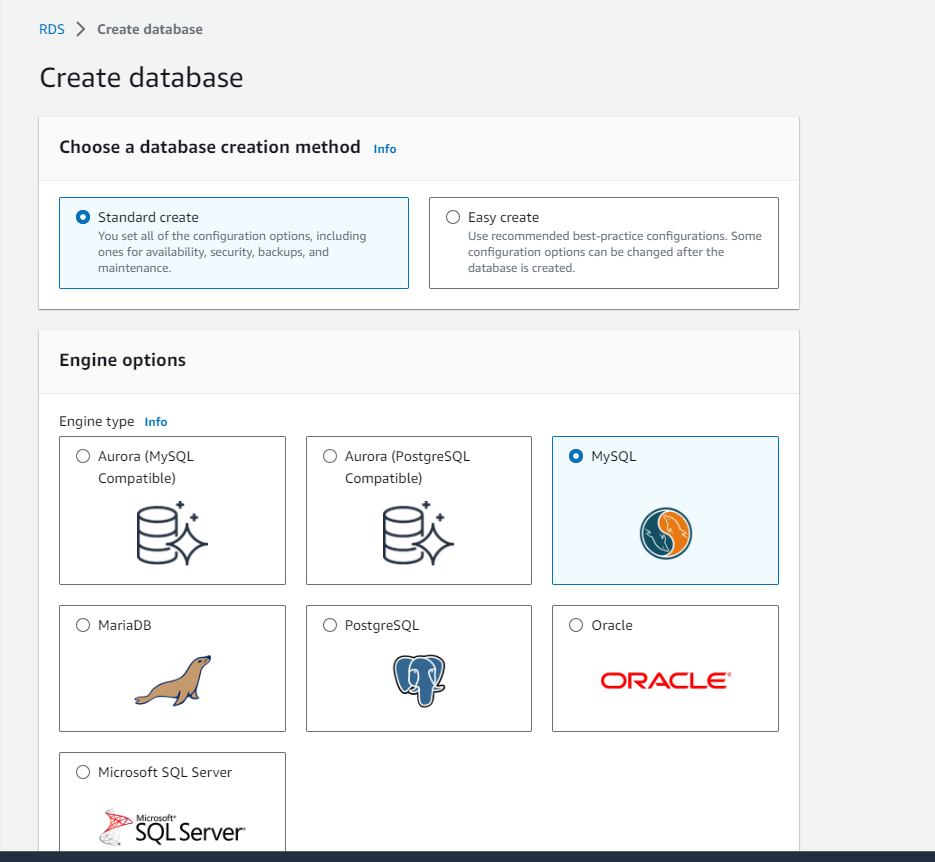
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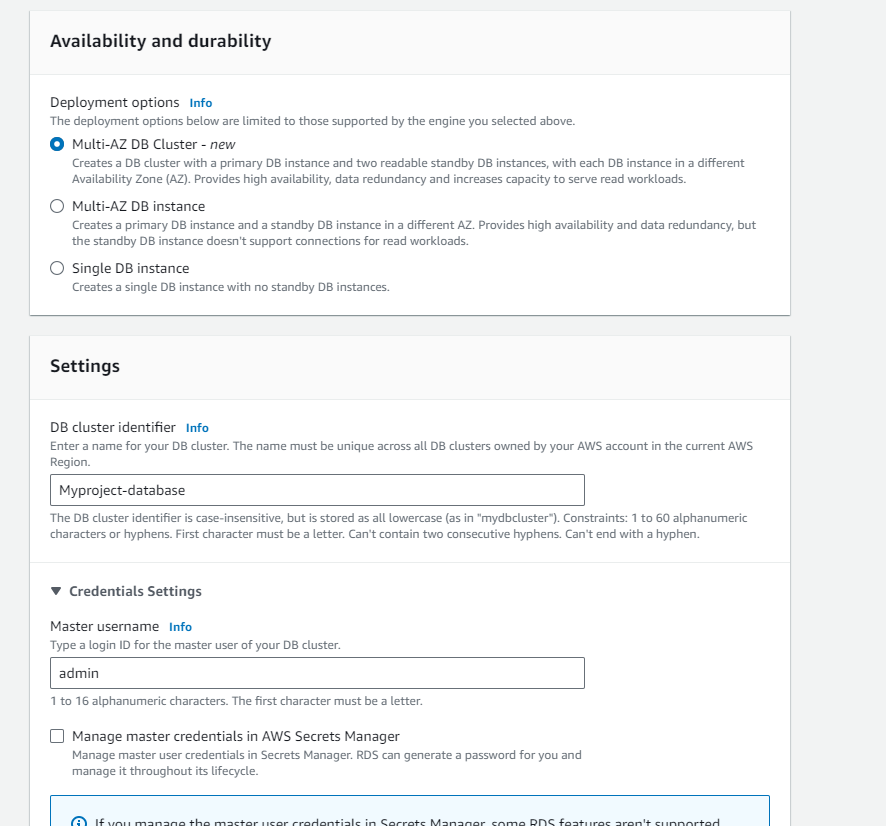
**Steps 5 :**  To check Webserver is working or now > Copy the public IP of Webserver and Paste in Browser and search, in my Scenario I’m able to access

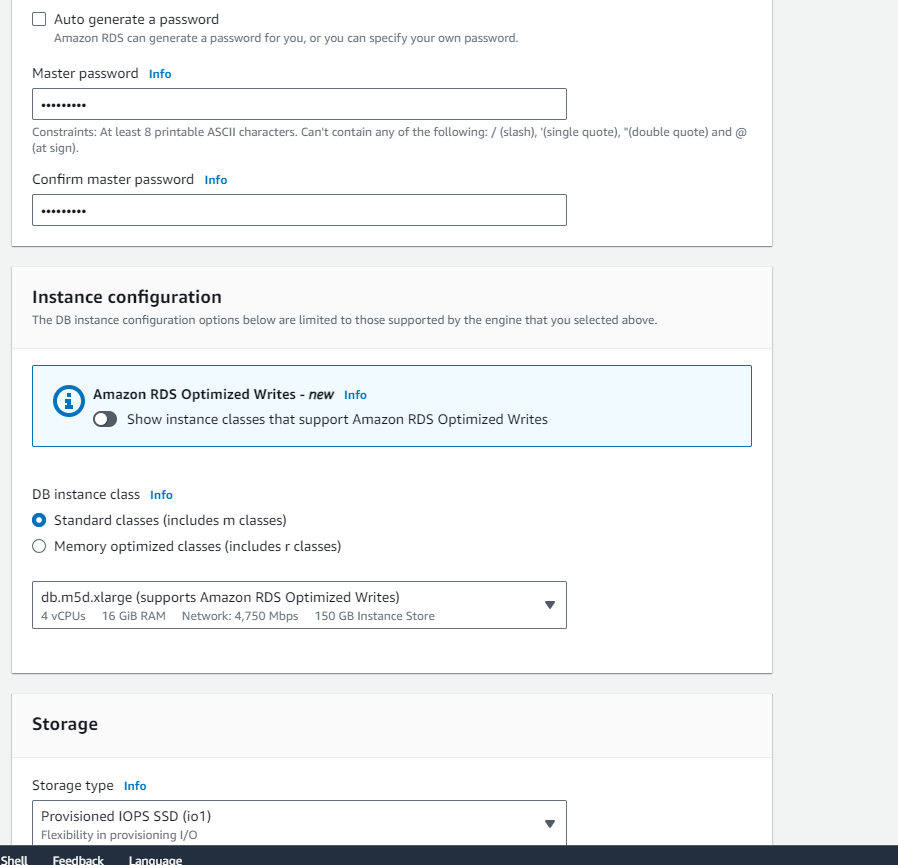
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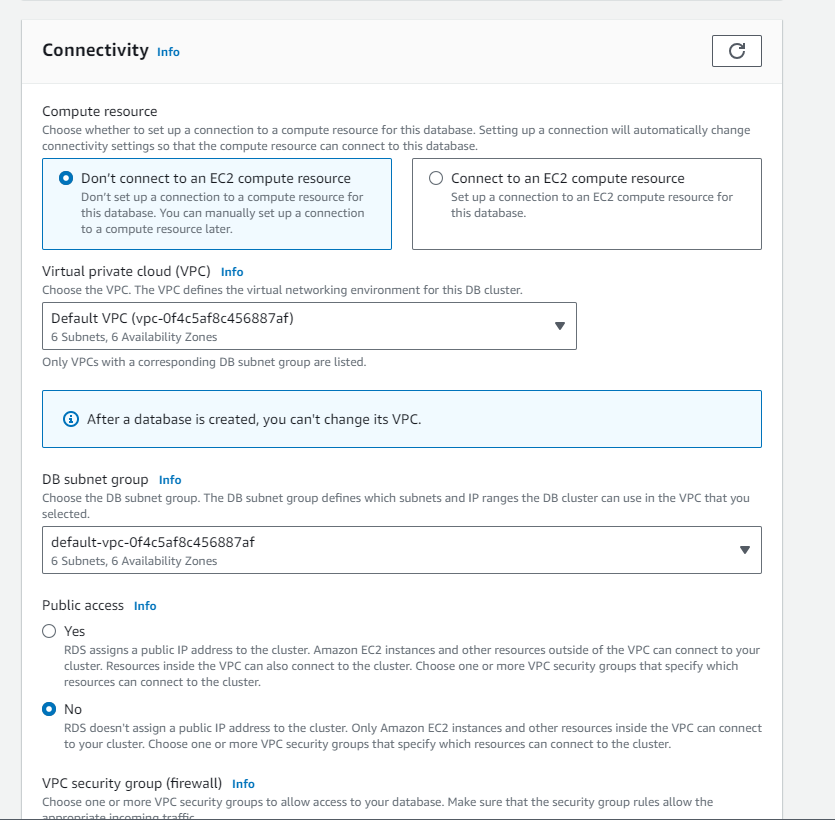
**Steps 6 :**  Create Database > go to RDS > Select Database Engine MySQL > Select Multi AZ DB cluster > Give the name of DB instance Identifier > Give the Master user name “admin” > give the master password “Admin1234” > Select Connectivity > VPC as same as Webserver > Public access No > Now Create SG where Inbound traffic allowed only from webserver SG > Create Database.

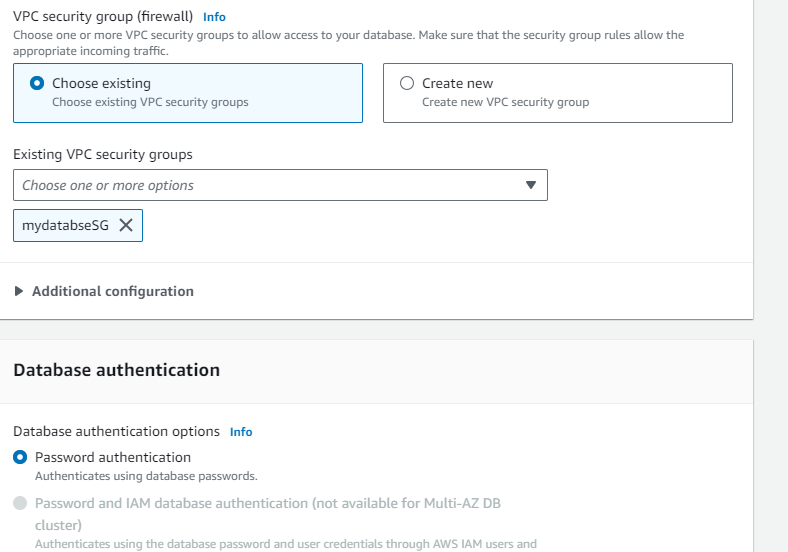
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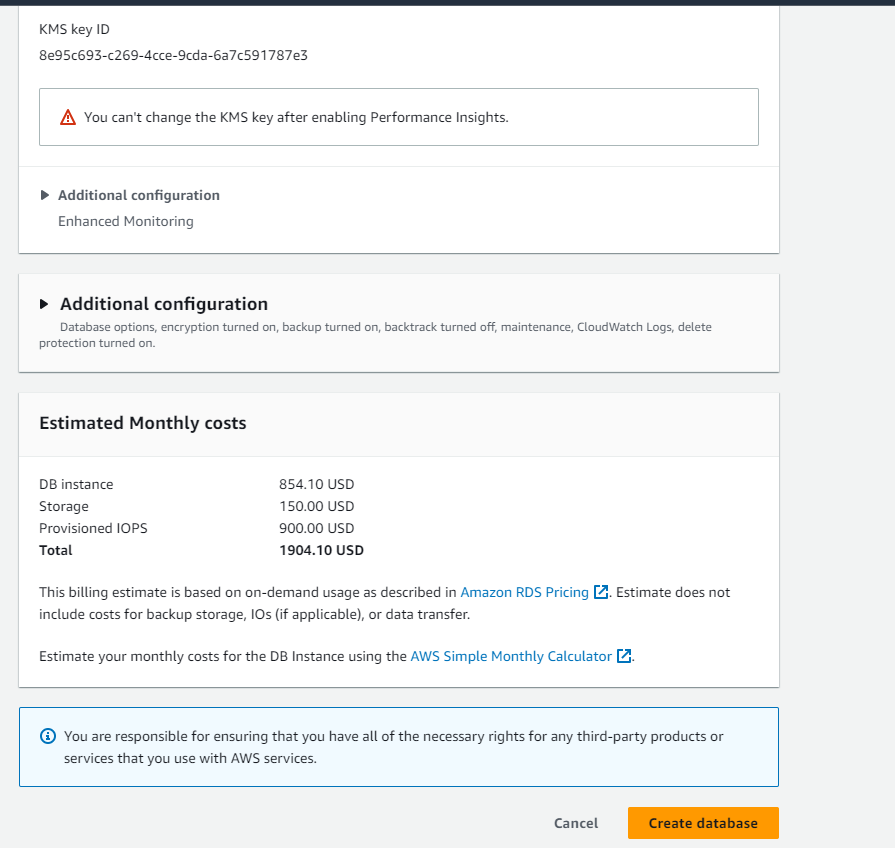
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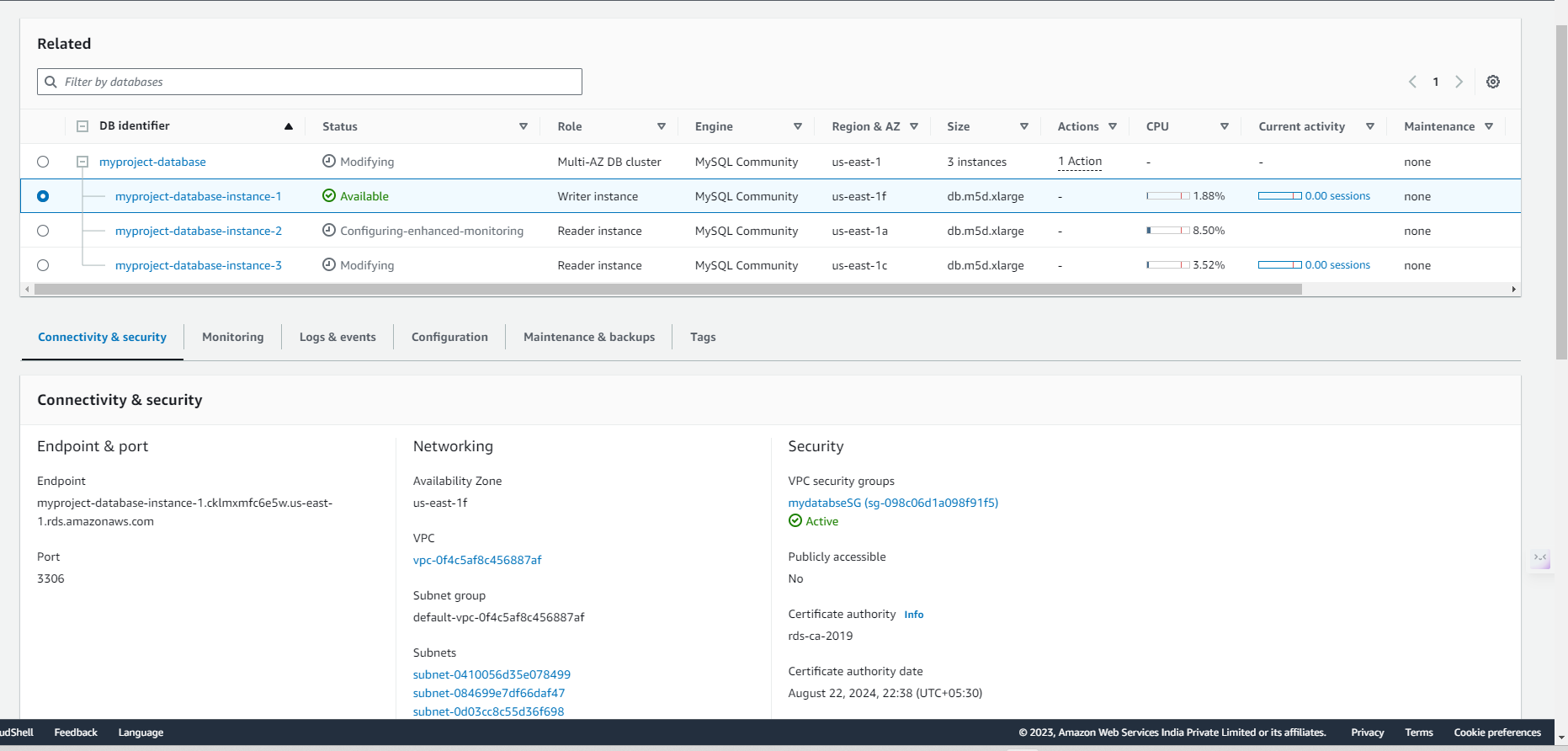
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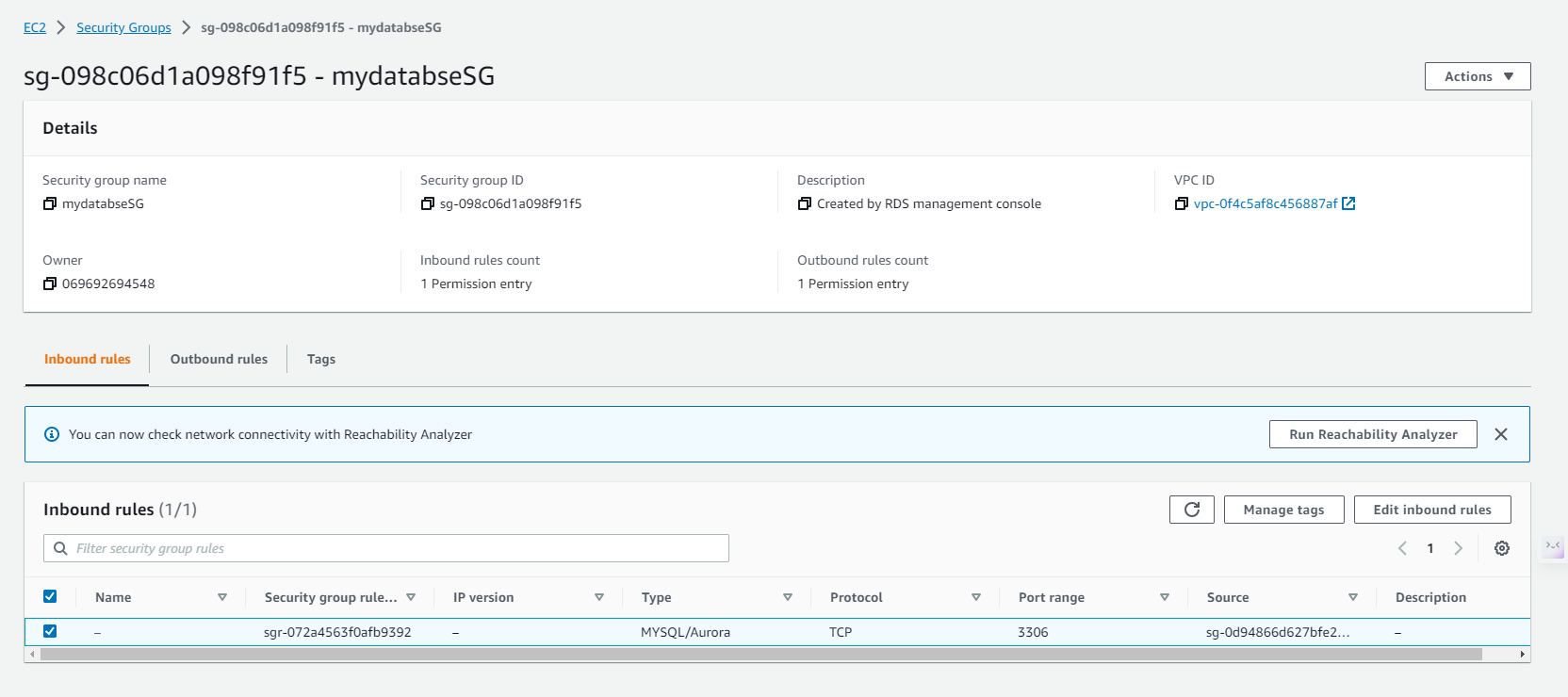
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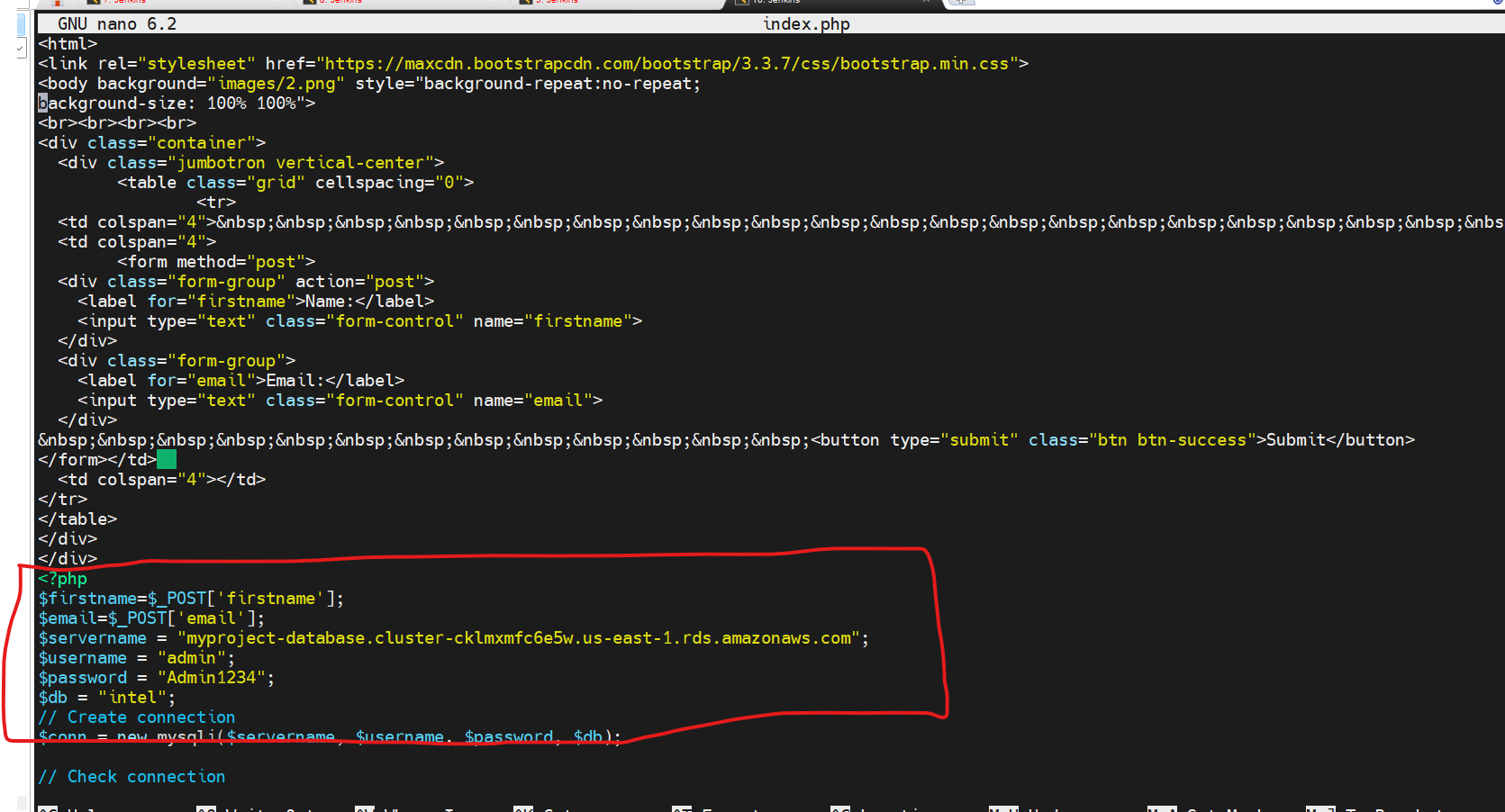
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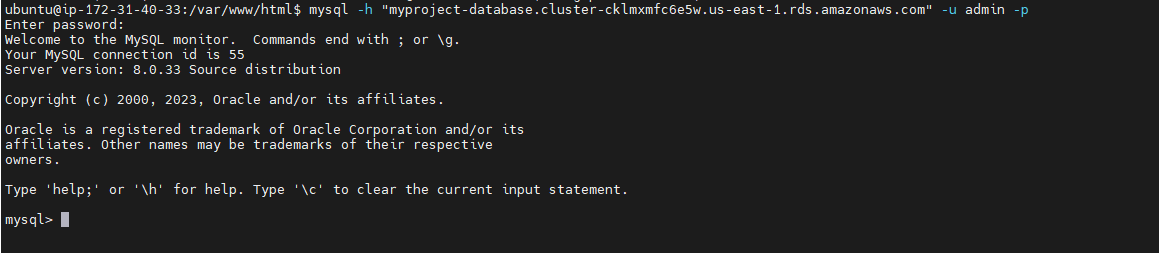
**Steps 7:**  Now go back to Webserver and Edit index.php > replace server name with Database writer endpoint “myproject-database-instance-1.cklmxmfc6e5w.us-east-1.rds.amazonaws.com” > Replace Username as you created for database “admin” > Now Replace password which Created for Database “Admin1234” > Now replace DB which will create with name “intel” > Now save the file.

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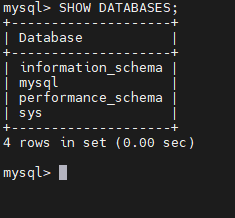
**Steps 7 :**  Now Connected database with webserver using below command

#mysql -h “myproject-database-instance-1.cklmxmfc6e5w.us-east-1.rds.amazonaws.com” -u admin -p

Now Given database password

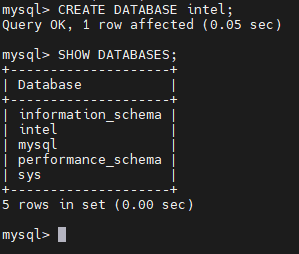
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* **Now here I have connected and there is no database created**

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**Steps 8 :**  Create DB name with Intel, Use Created DB and Create a table name with data using below commands

#CREATE DATABASE intel;

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* **Use created DB**

**#USE intel;**

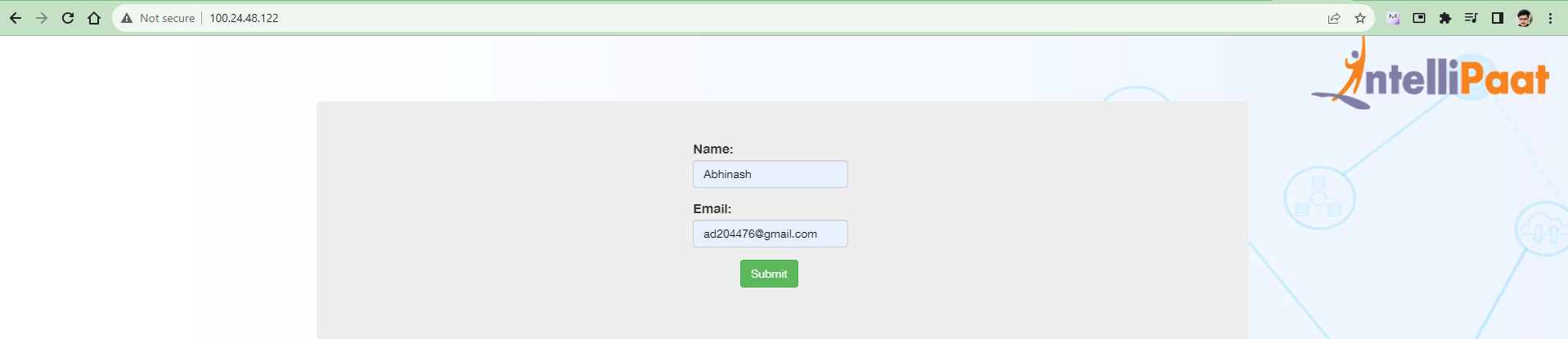
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* **Now Create a table name with data**

**#CREATE TABLE data (firstname VARCHAR(20), email VARCHAR(20));**

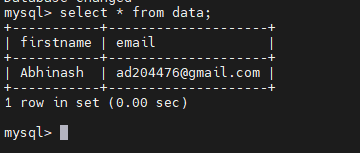
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* **Now go back on website and file the data and submit**

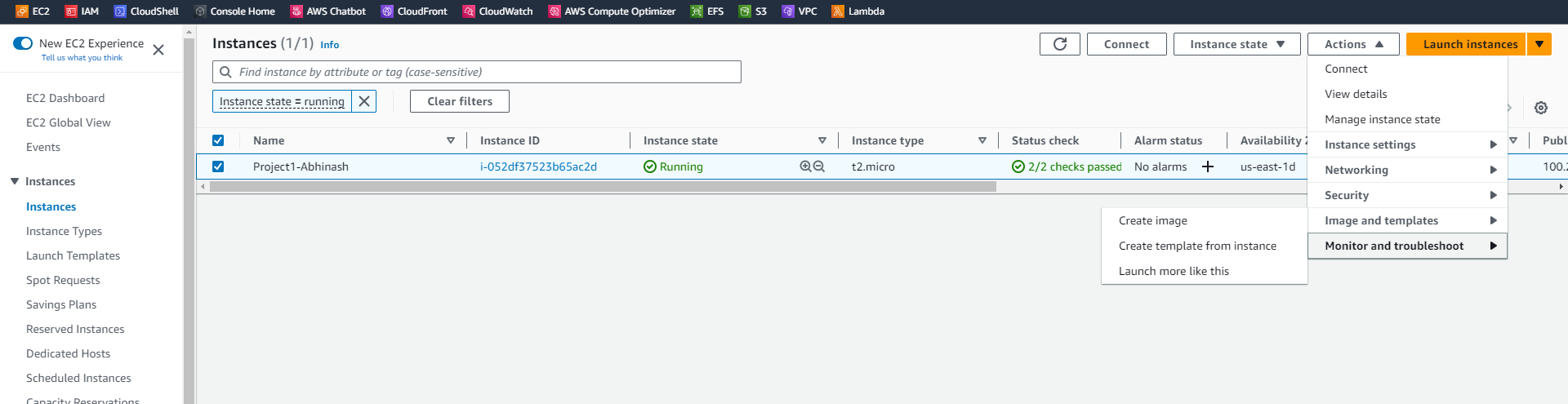
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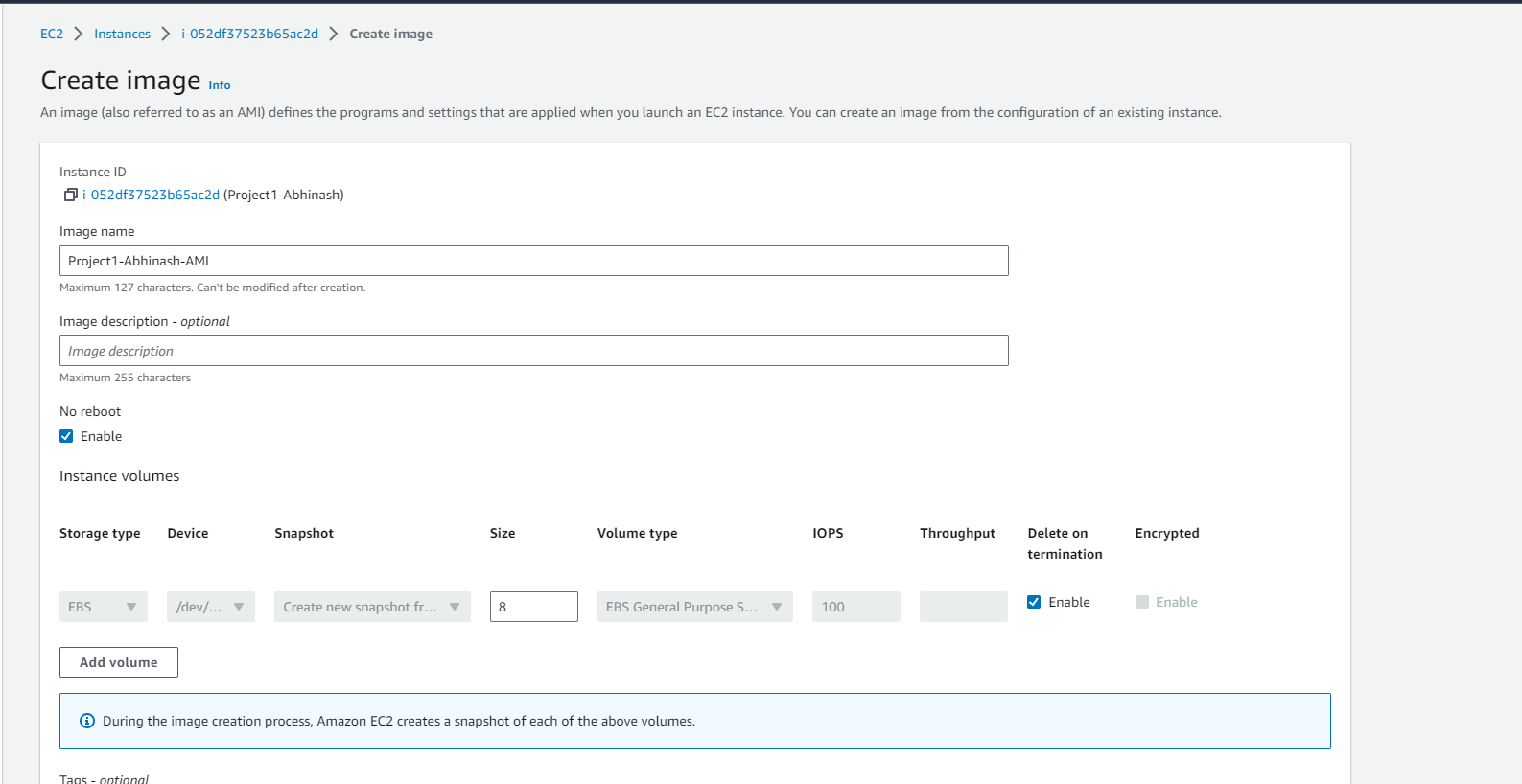
* **Now see the filled data**

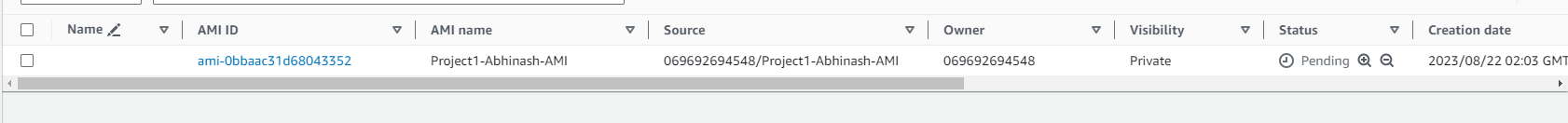
**#select \* from data;**

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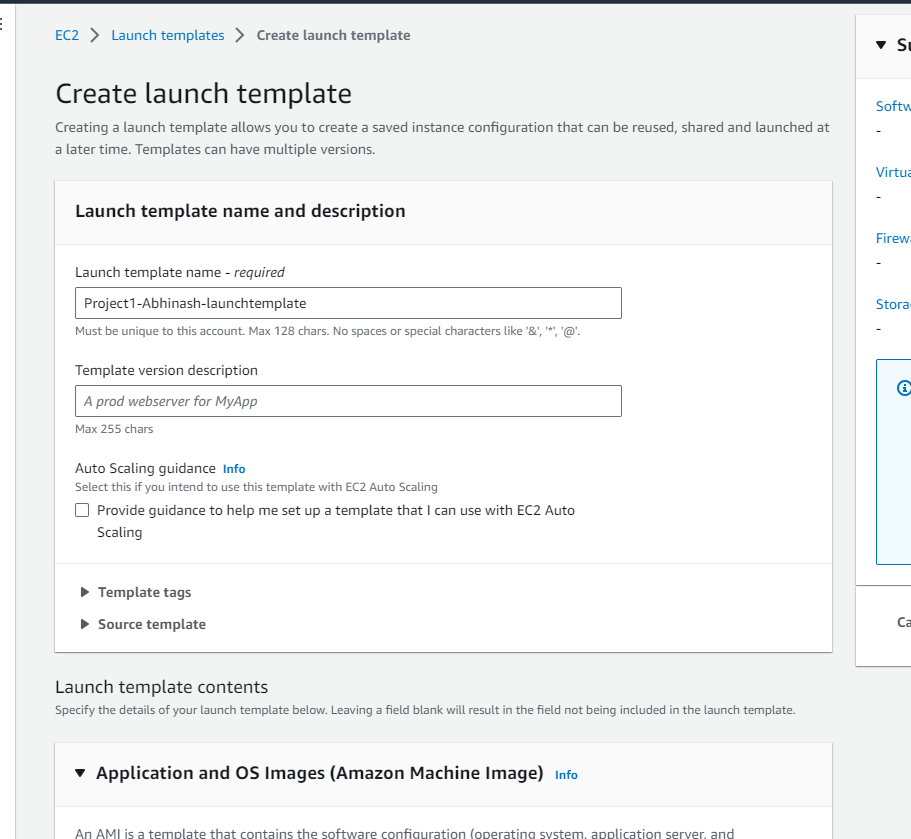
**Steps 9 :**  Now Created a Image with running webserver

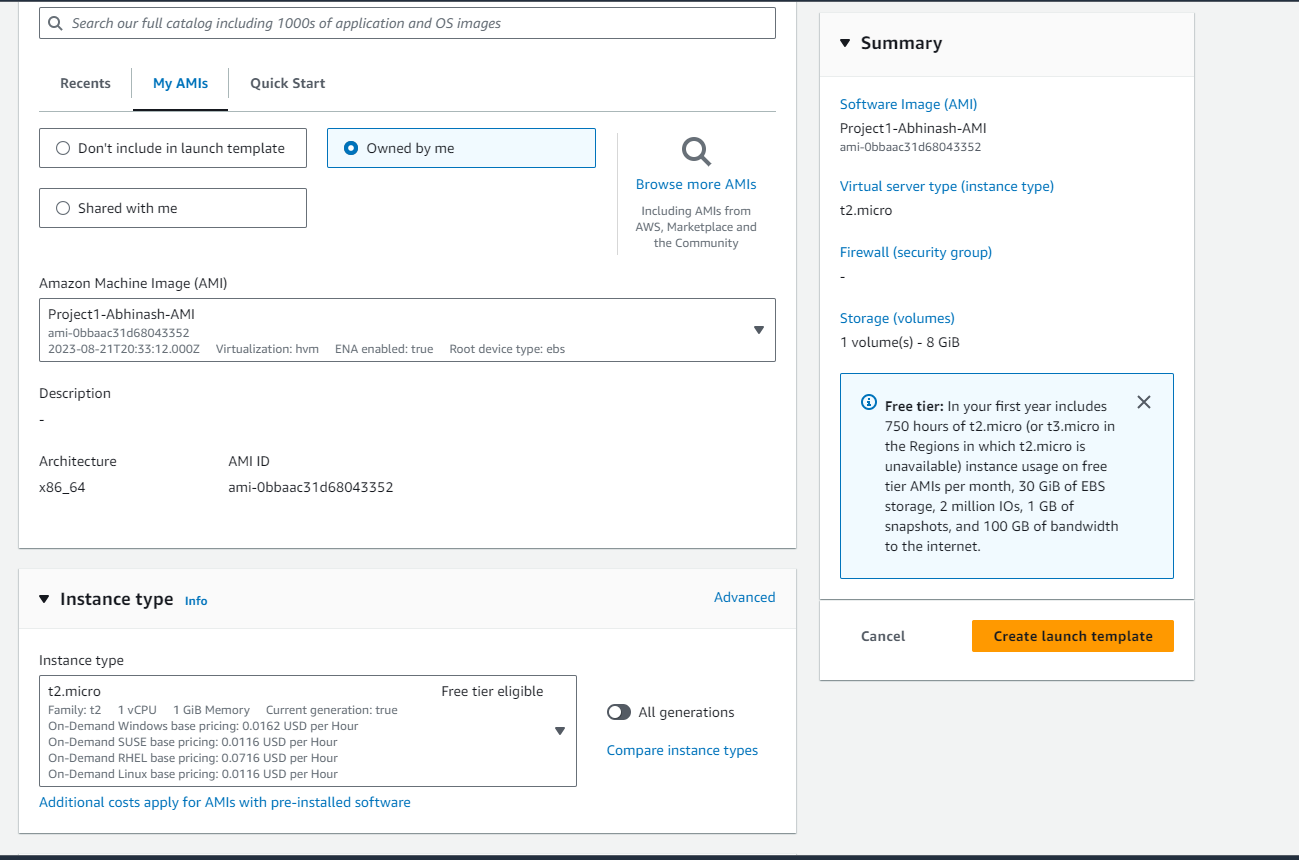
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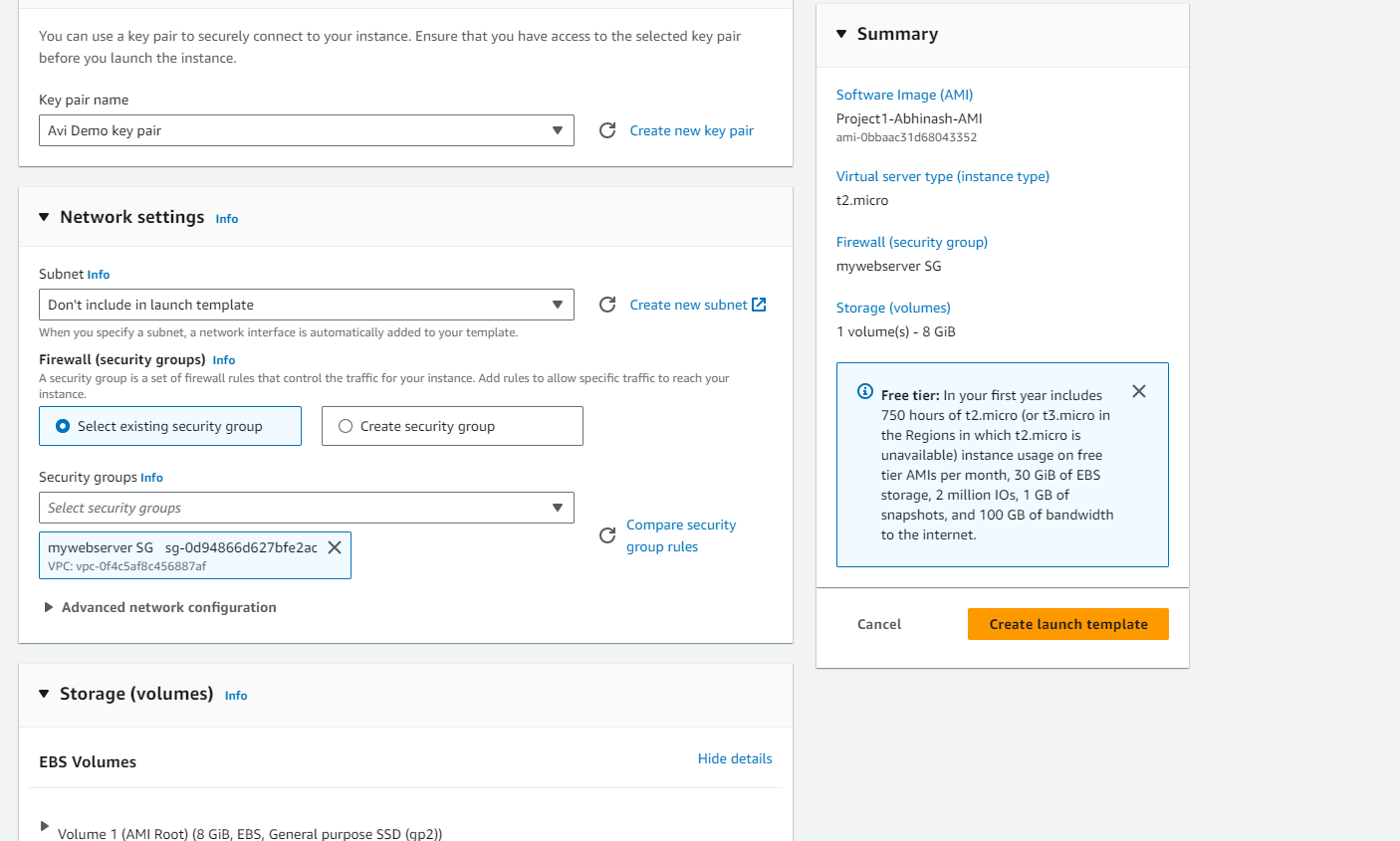
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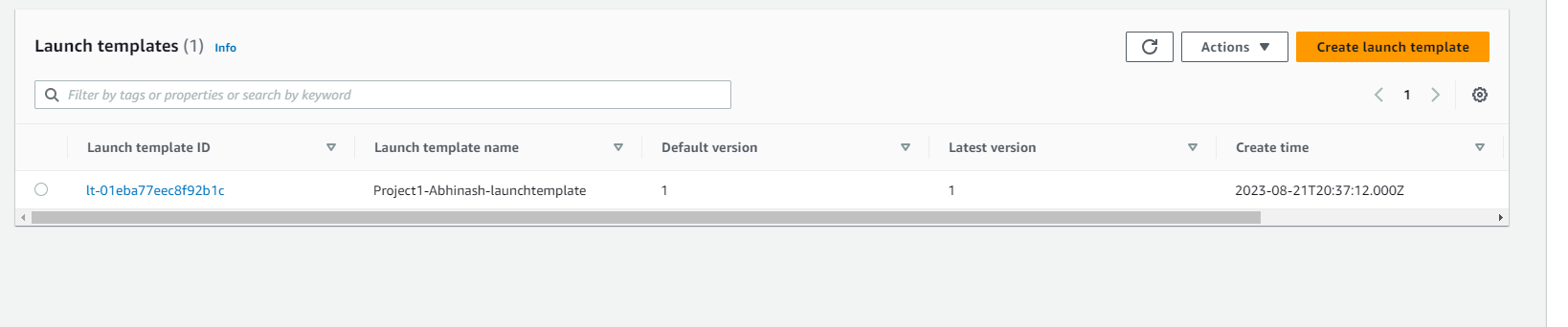
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**Steps 10 :**  Now Created A Launch Template in same VPC and Same SG as running Webserver

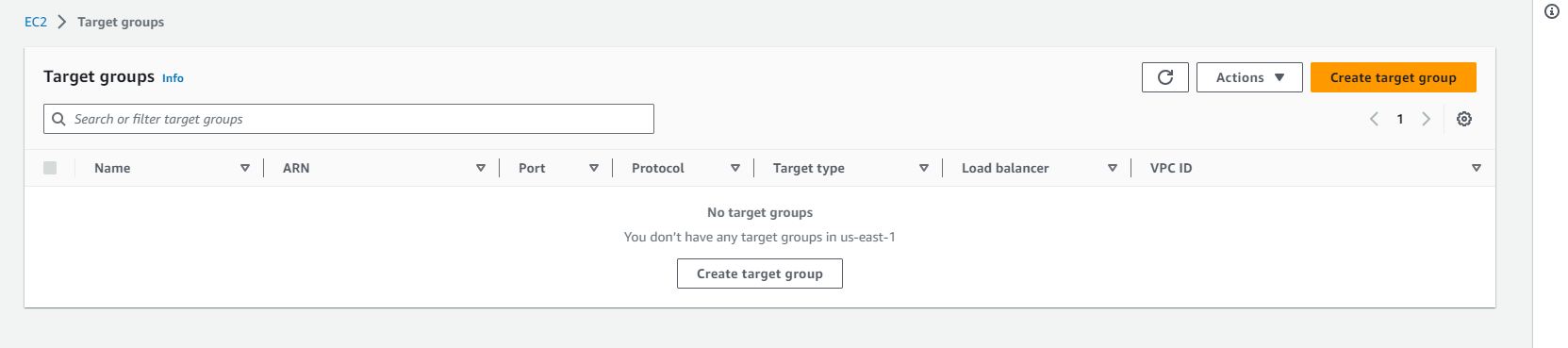
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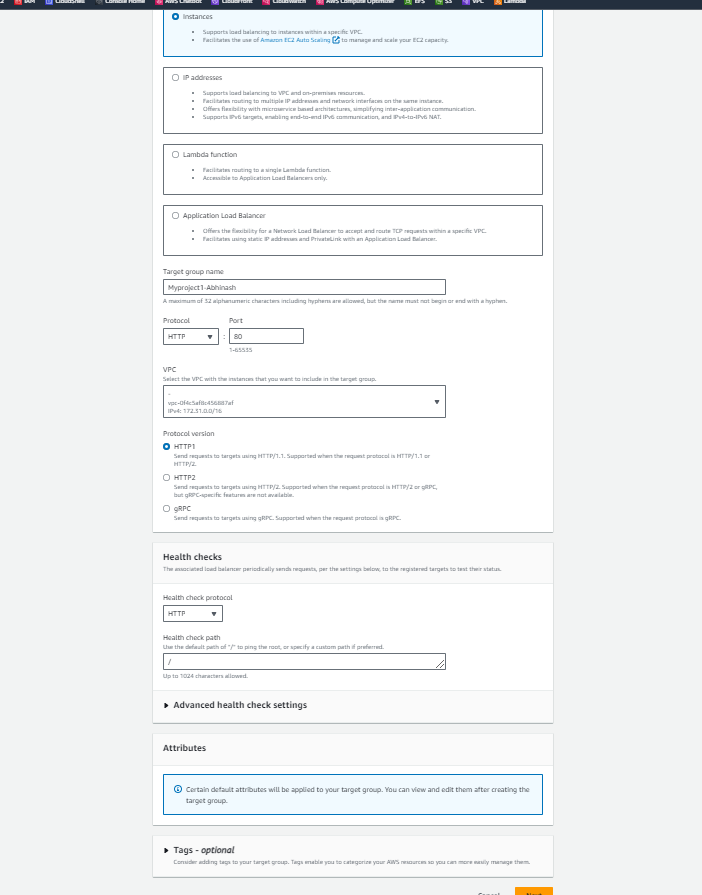
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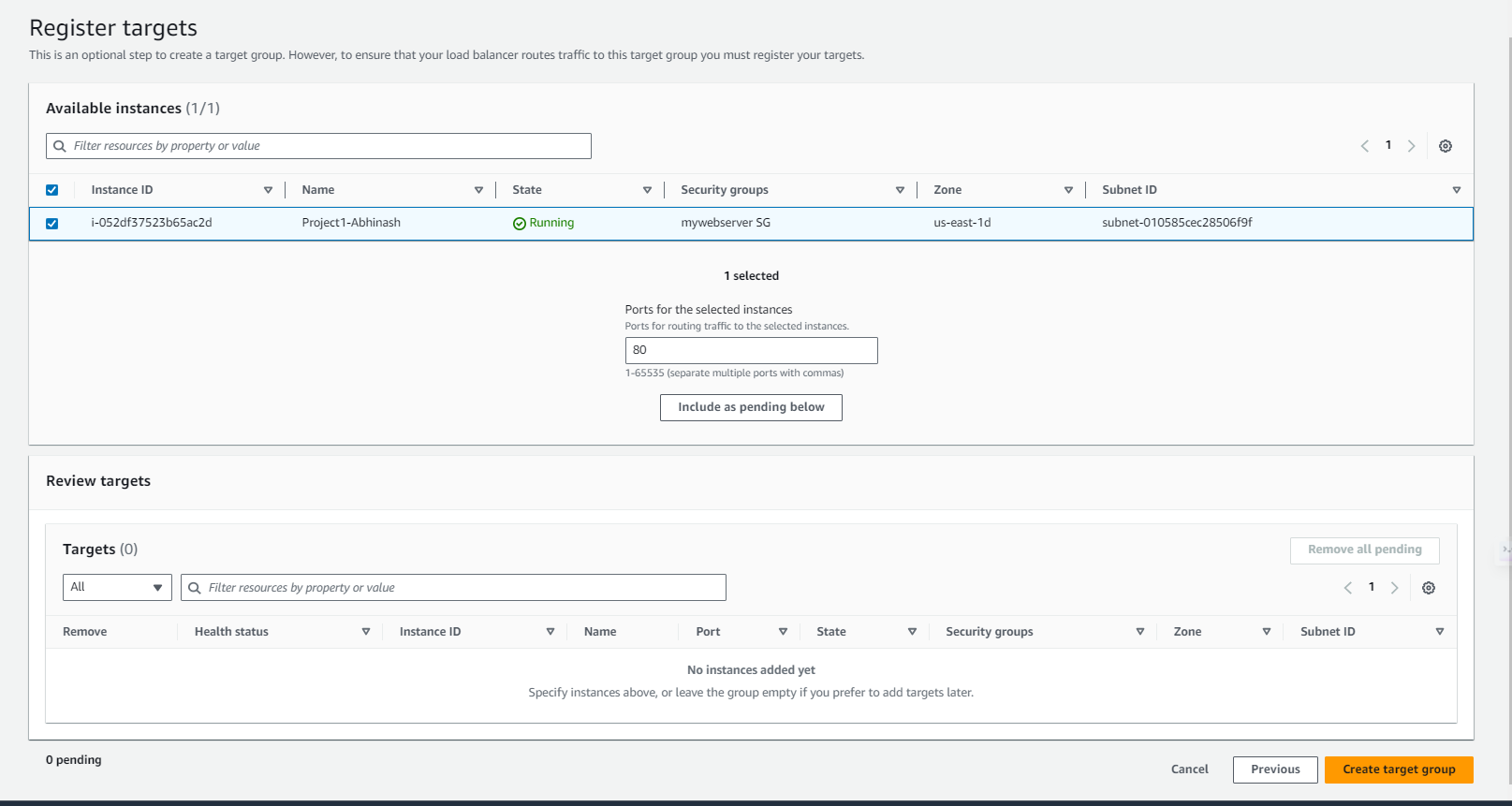
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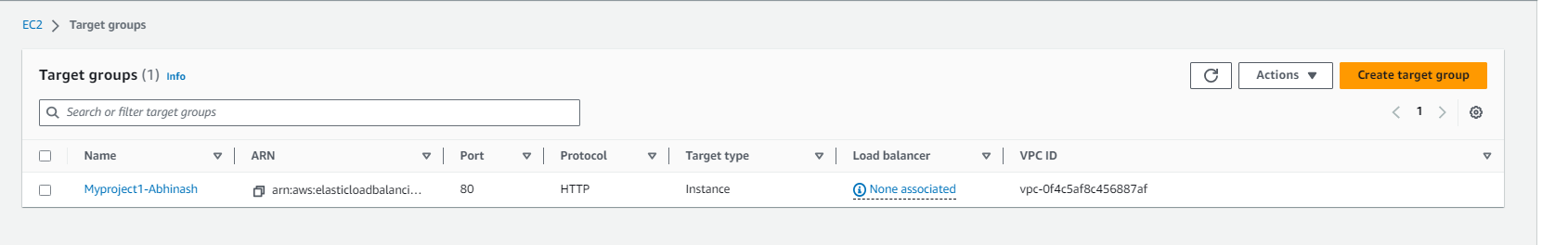
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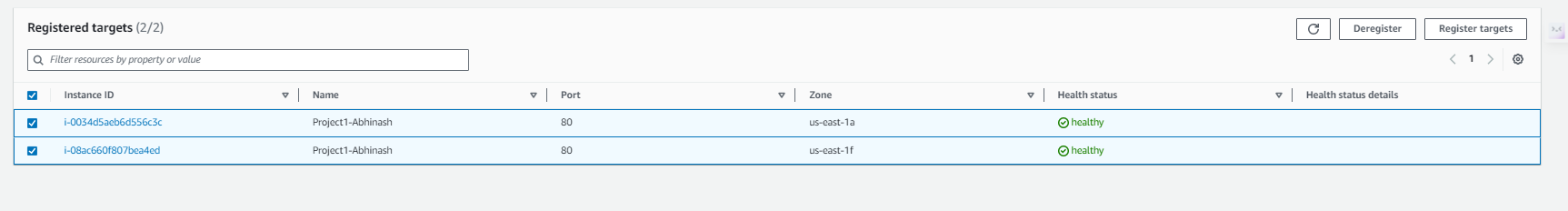
**Steps 11:**  Now Create target group and register webservers

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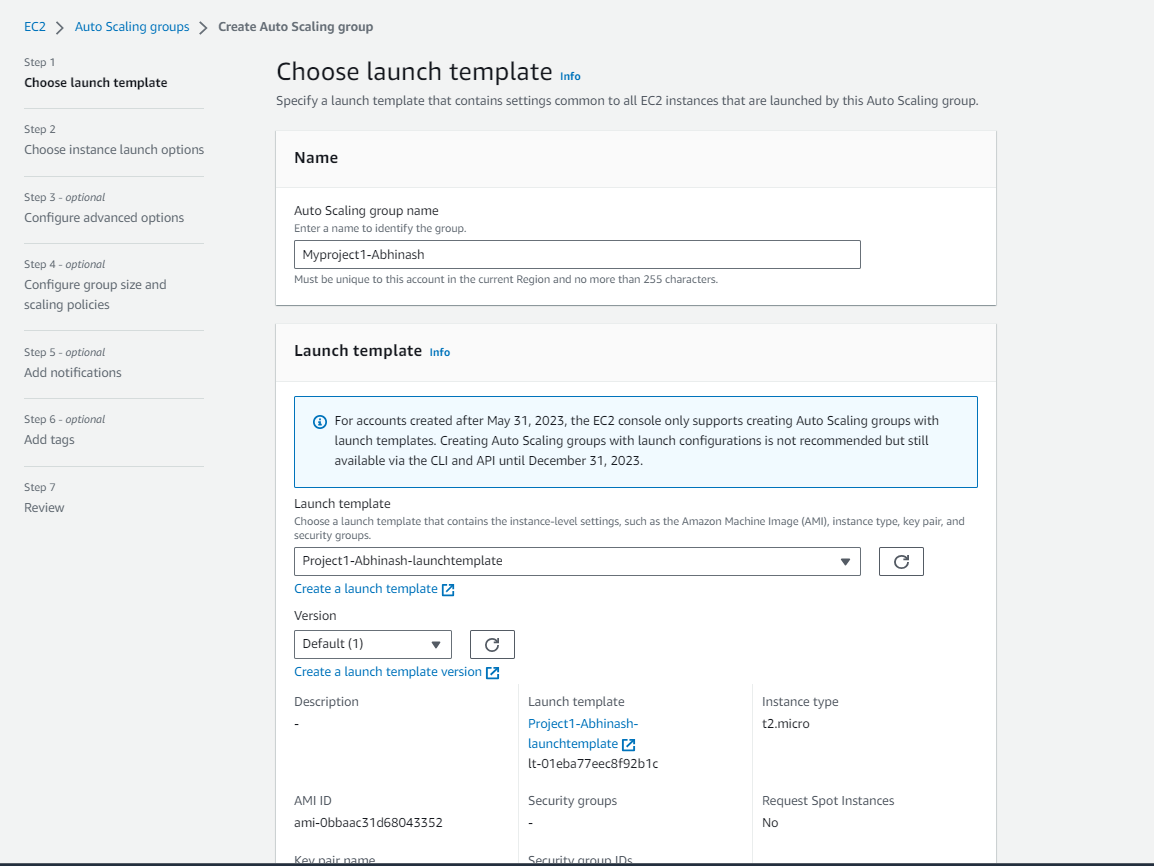
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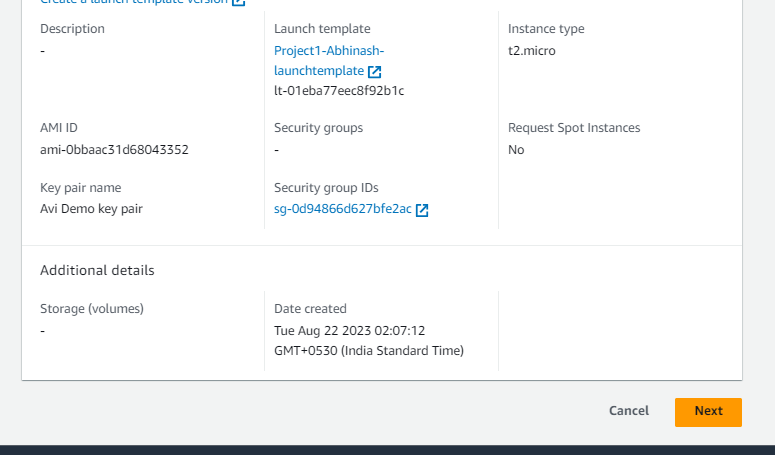
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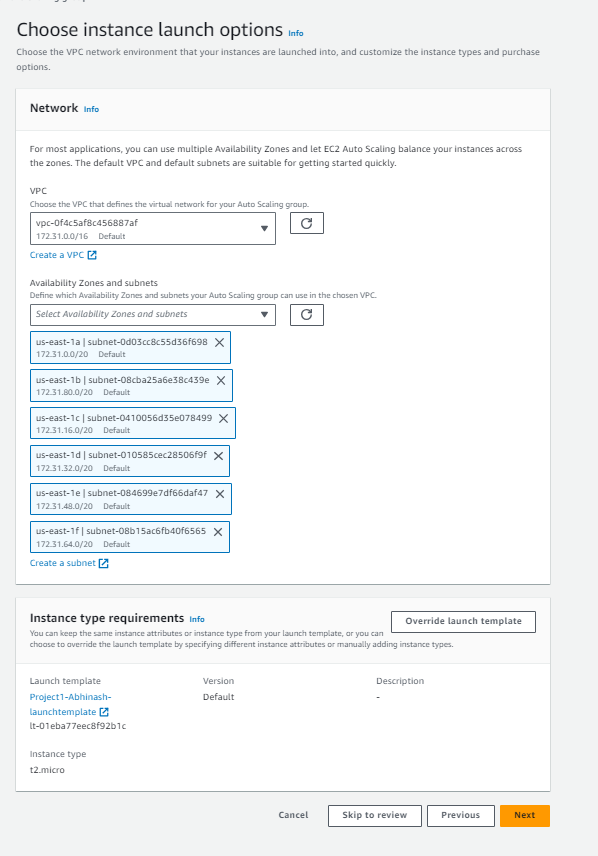
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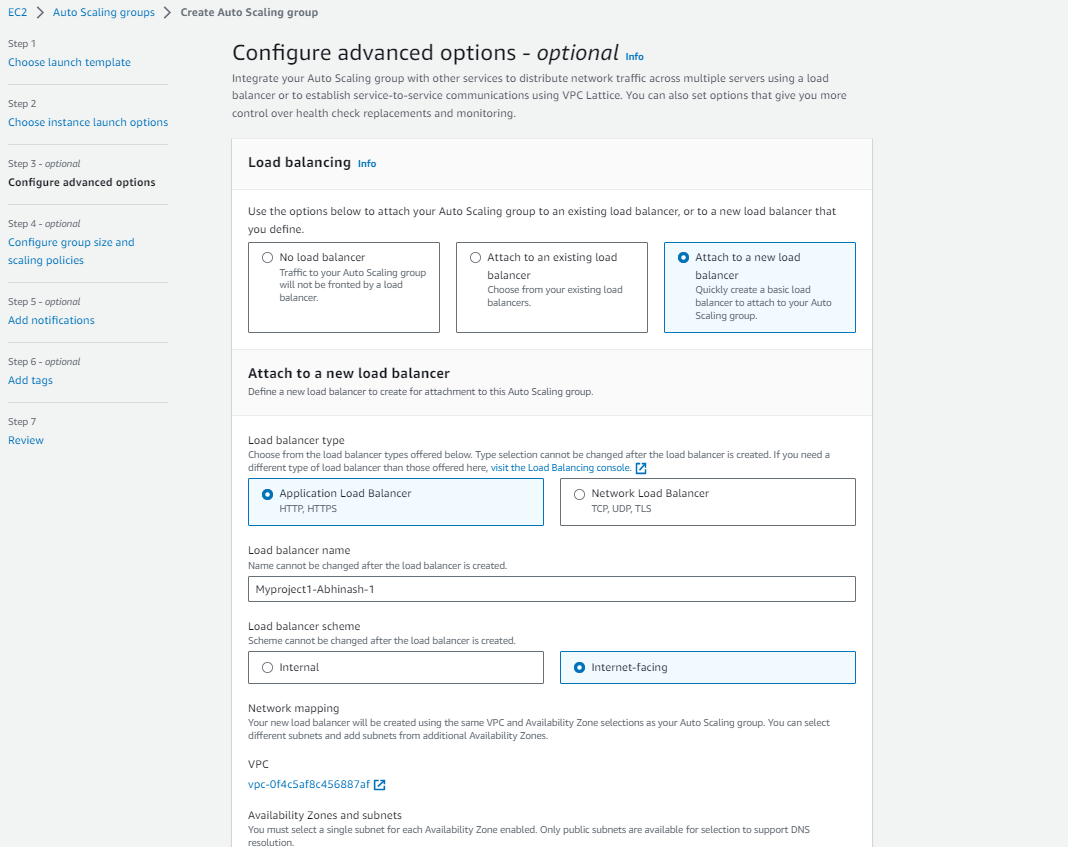
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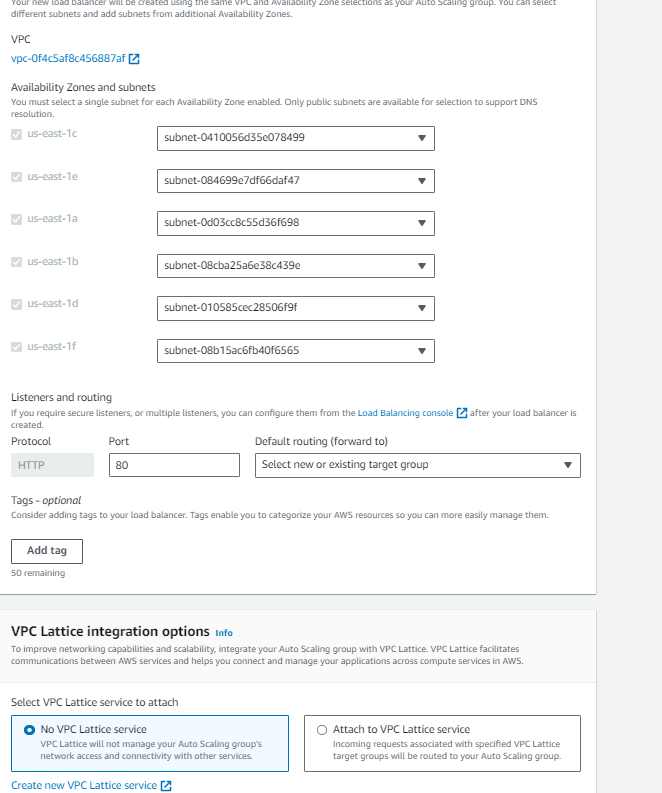
**Steps 12:**  Now Created Auto scaling Group using Created Launch template with Webserver AMI and configure group Size 2 minimum

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