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# AWS Assignment

## Lab 4 - Working with EBS

I am going to write down about lab 4 and lab 5 which I have done and what I learnt I will explain with screenshots.

**Task 1:** I created a new **EBS volume** I started my lab and went to AWS Management Console where I chose **EC2** service. I successfully created volume (**Figure 1**).

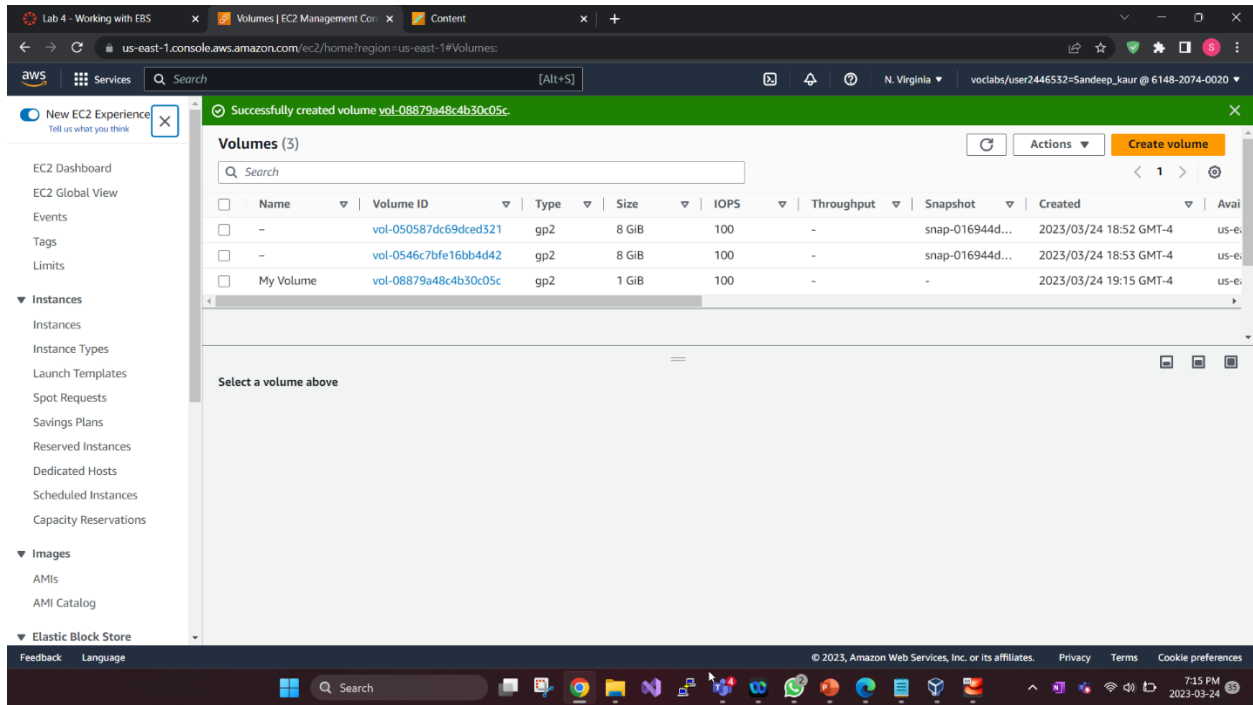


Figure 1 Created Volume

Task 2 Attach the Volume to an Instance: in this I selected my volume and went to action menu where I attached volume while following some steps (Figure 2).

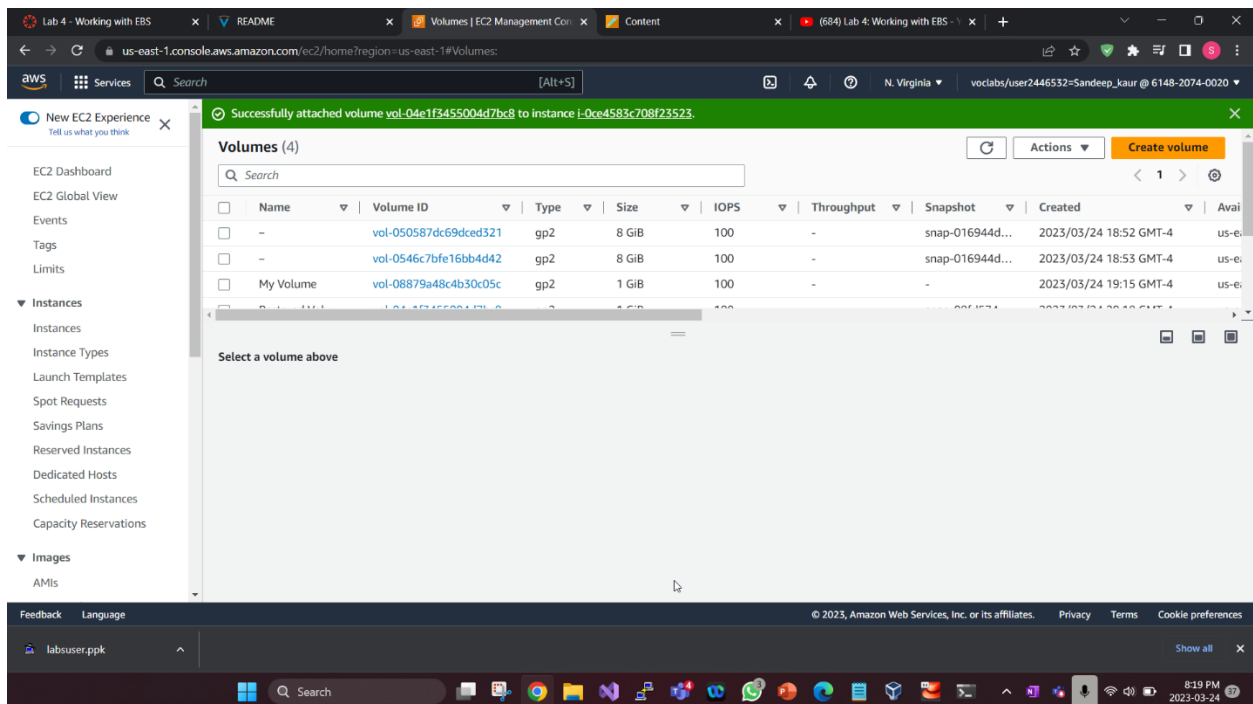


Figure 2 Attached volume.

Task 3 Connect to Your Amazon EC2 Instance: in this firstly I downloaded the file which I used to open **putty**. I followed all instructions, where I used all steps to connect with the putty and I showed in the images (**Figure 3**).

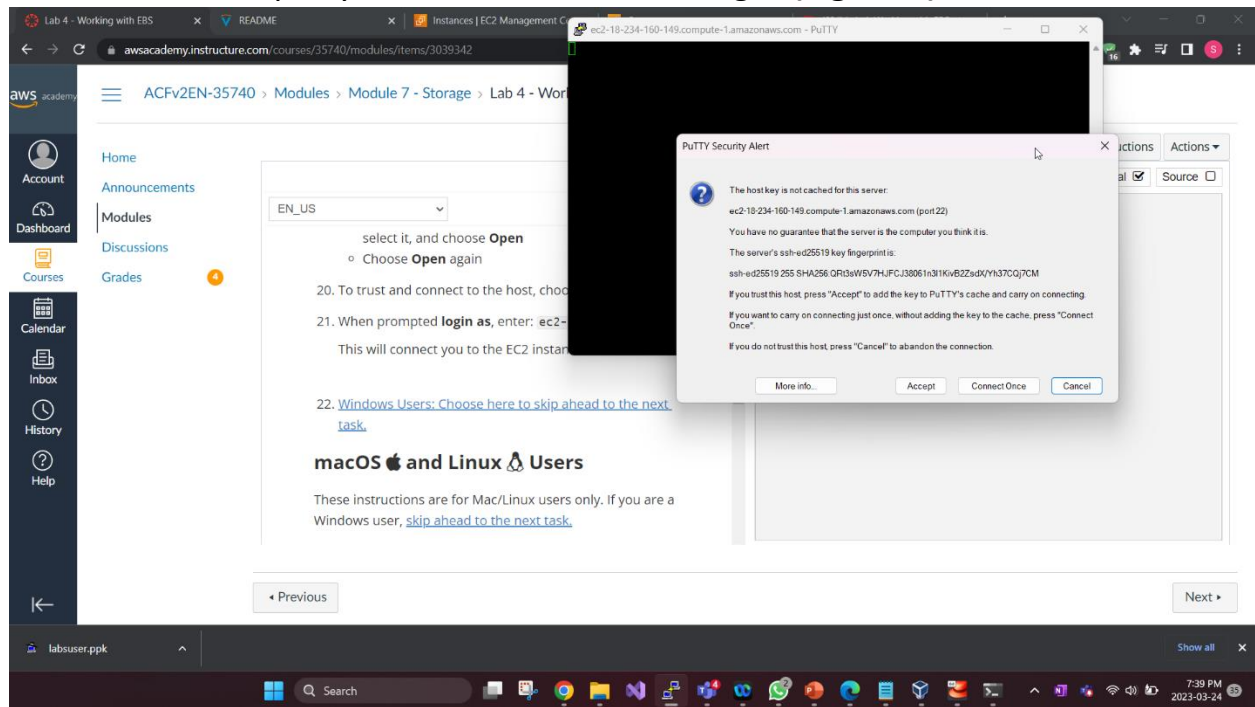


Figure 3 Connect with putty

I login with **ec2-user**. I showed in image. I opened the terminal and used commands (**Figure 4**).

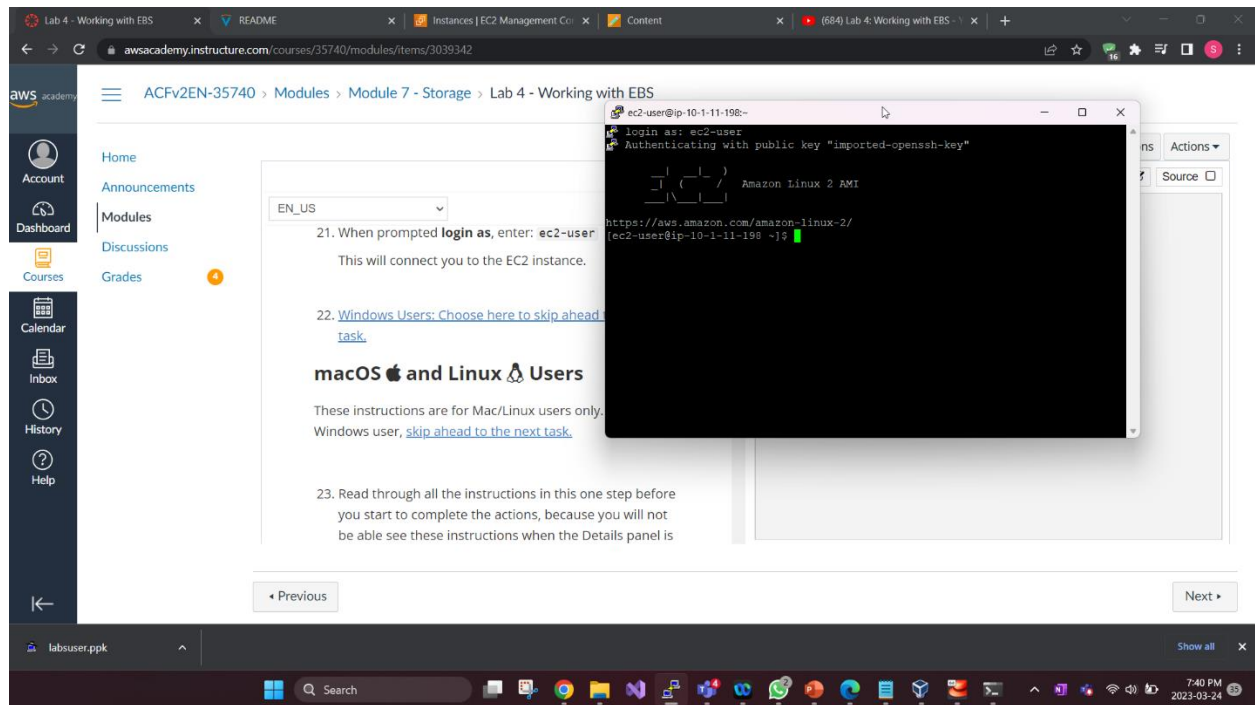


Figure 4 login

Task 4: Create and Configure Your File System after login I used commands. All commands show different things and at the end verified the text (Figure 5 and 6).



Task 5 Create an Amazon EBS Snapshot: in this step I open **AWS Management Console** where chose **volumes** and selected to use I created snapshot (Figure 7).

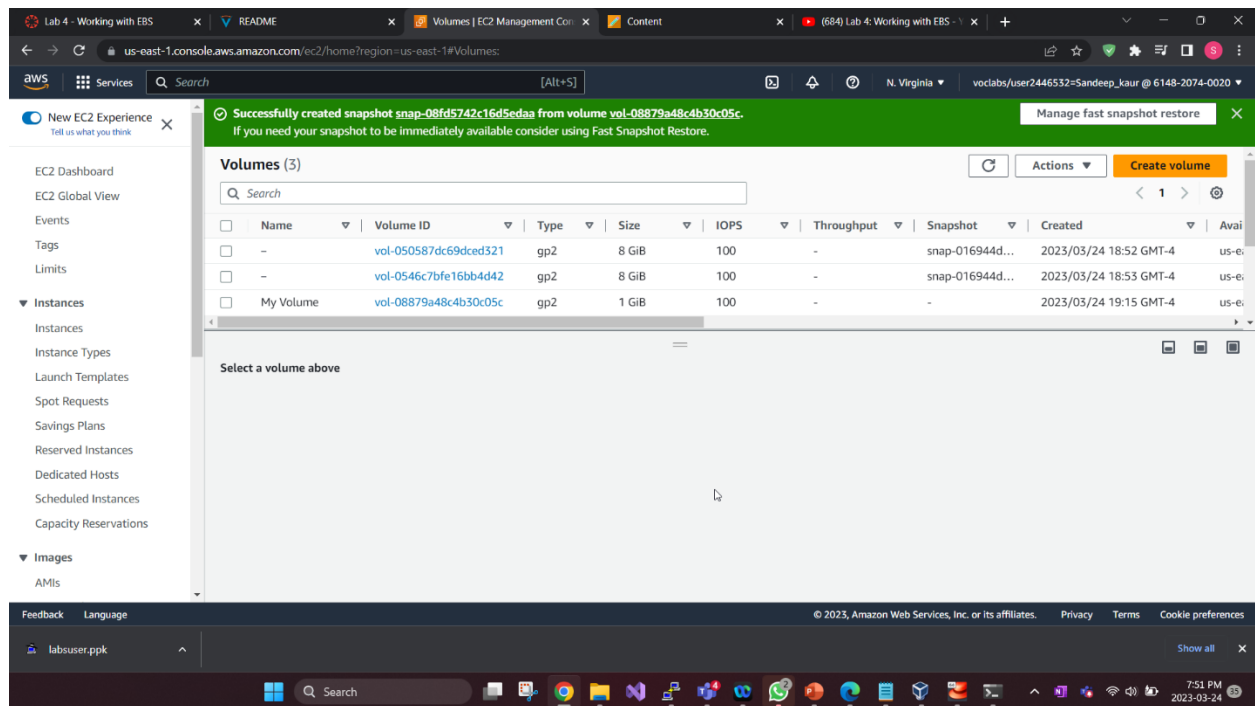


Figure 7 created snapshot

After using it I opened **SSH session**, and I deleted the file while using **rm** command and used **ls** command (Figure 8).

```
ec2-user@ip-10-1-11-198:~
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
65536 inodes, 262144 blocks
13107 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=268435456
8 block groups
32768 blocks per group, 32768 fragments per group
8192 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376

Allocating group tables: done
Writing inode tables: done
Creating journal (8192 blocks): done
Writing superblocks and filesystem accounting information: done

[ec2-user@ip-10-1-11-198 ~]$ sudo mkdir /mnt/data-store
[ec2-user@ip-10-1-11-198 ~]$ sudo mount /dev/sdf /mnt/data-store
[ec2-user@ip-10-1-11-198 ~]$
[ec2-user@ip-10-1-11-198 ~]$ echo "/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2" | sudo tee -a /etc/fstab
/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2
[ec2-user@ip-10-1-11-198 ~]$ cat /etc/fstab
#
UUID=9da90cbe-ac2c-449c-ba5c-c06e3466d676 / xfs defaults,noatime 1 1
/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2
[ec2-user@ip-10-1-11-198 ~]$
[ec2-user@ip-10-1-11-198 ~]$ df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        478M   0  478M   0% /dev
tmpfs           486M   0  486M   0% /dev/shm
tmpfs           486M  468K  485M   1% /run
tmpfs           486M   0  486M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.5G  6.5G  19% /
tmpfs           98M   0   98M   0% /run/user/0
tmpfs           98M   0   98M   0% /run/user/1000
/dev/xvdf       975M  60K  924M   1% /mnt/data-store
[ec2-user@ip-10-1-11-198 ~]$ sudo sh -c "echo some text has been written > /mnt/data-store/file.txt"
[ec2-user@ip-10-1-11-198 ~]$ cat /mnt/data-store/file.txt
some text has been written
[ec2-user@ip-10-1-11-198 ~]$
[ec2-user@ip-10-1-11-198 ~]$ sudo rm /mnt/data-store/file.txt
[ec2-user@ip-10-1-11-198 ~]$ ls /mnt/data-store/
lost+found
[ec2-user@ip-10-1-11-198 ~]$
```

Figure 8 used rm command.

Task 6: Restore the Amazon EBS Snapshot: as I ever wish it **retrieve data stored**, I can use **EBS volume**. I created a volume using snapshot (**Figure 9**).

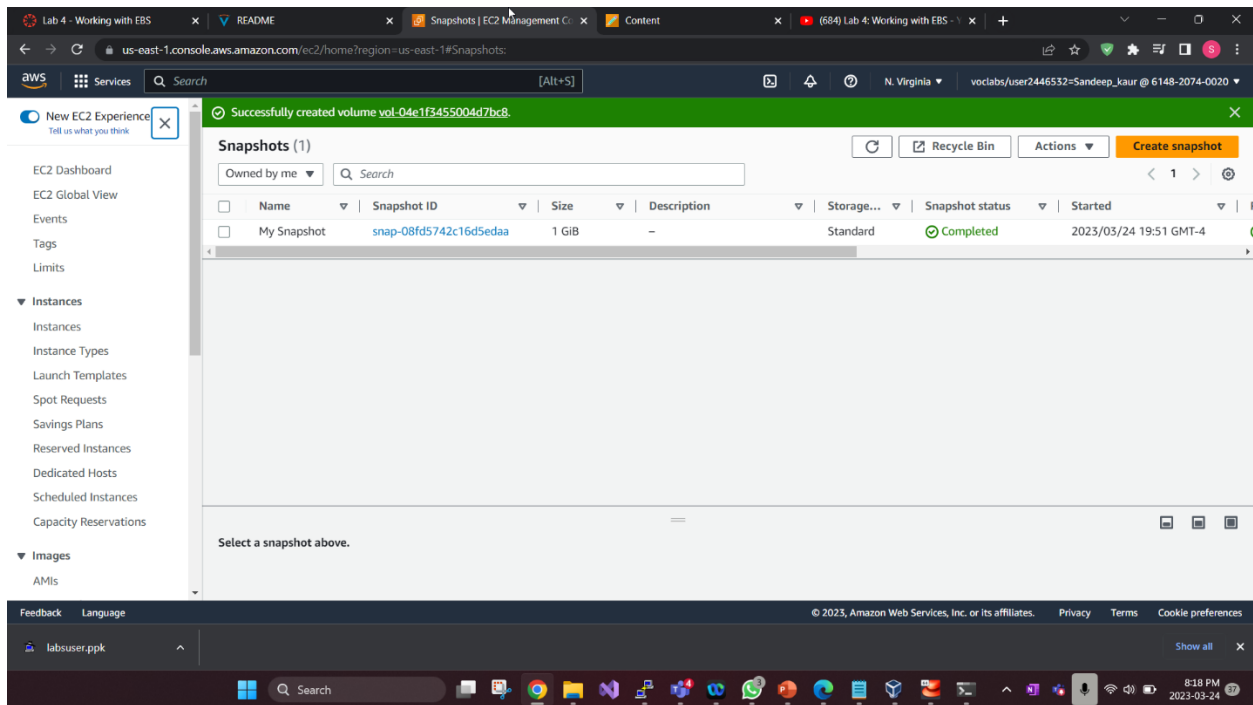


Figure 9 created volume.

Following all steps **created volume** along with it I attached volume (**Figure 10**).

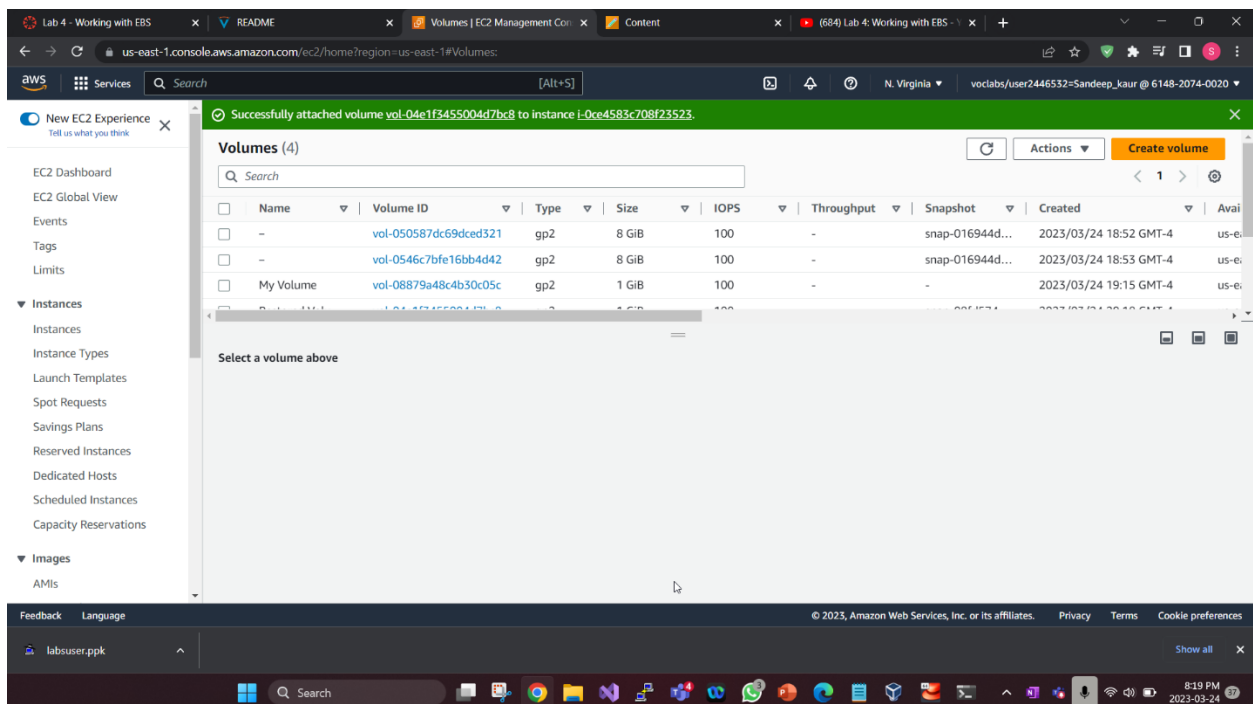


Figure 10 attached volume

Again, gave commands for **file.text** (**Figure 11**).





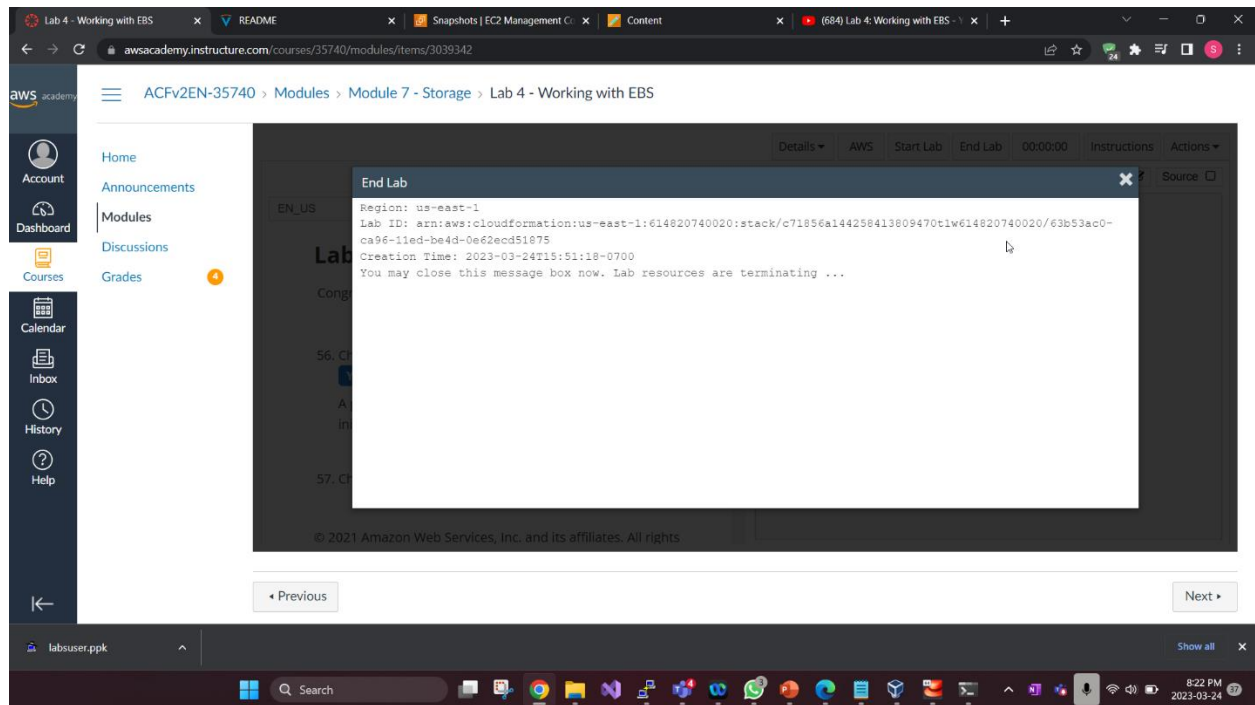


Figure 13 end lab

## Lab 5 - Build a Database Server

Task 1 Create a Security Group for the RDS DB Instance in this I used VPC service where I created **security group (Figure 14)**.

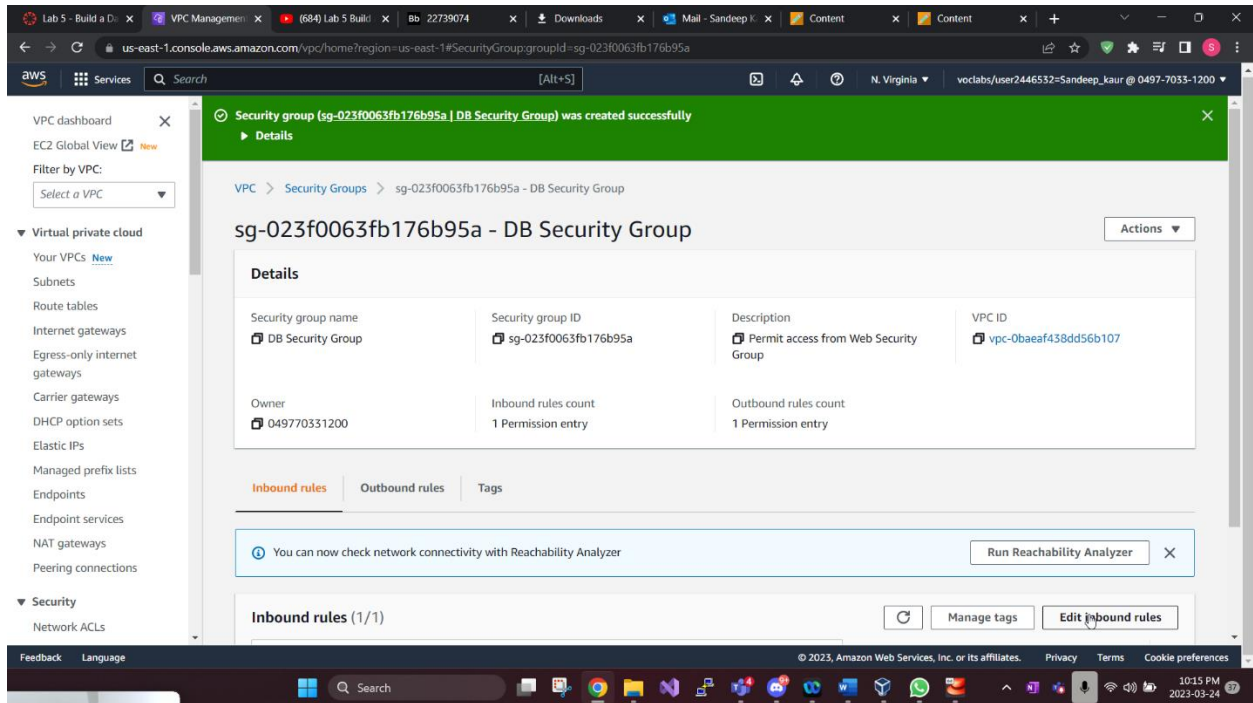


Figure 14 Security Group

Task 2 Create a DB Subnet Group: I chose RDS service to create a database (Figure 15).

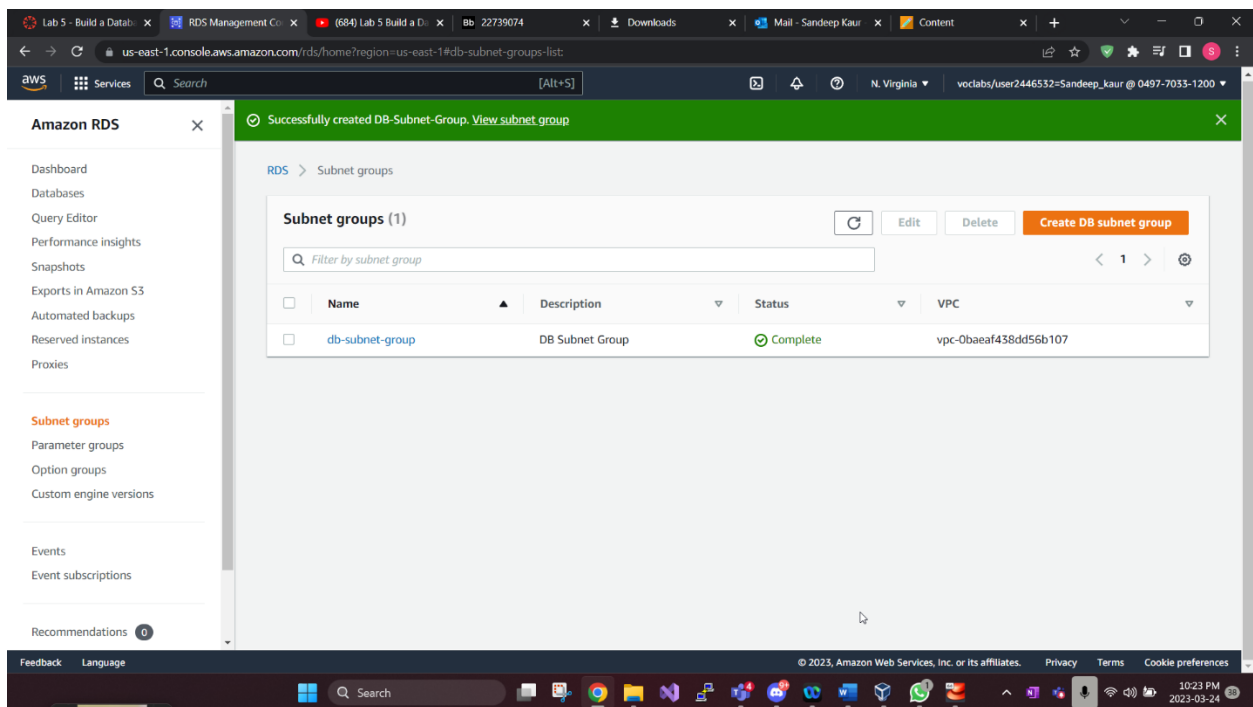
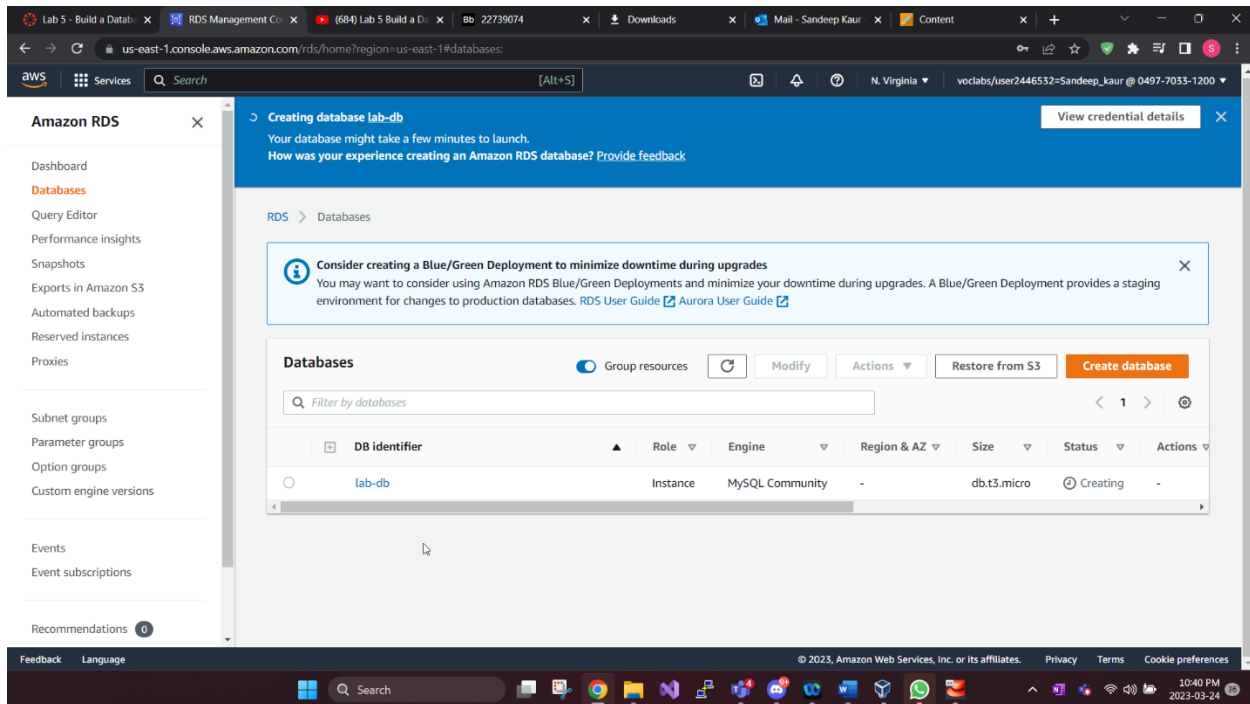


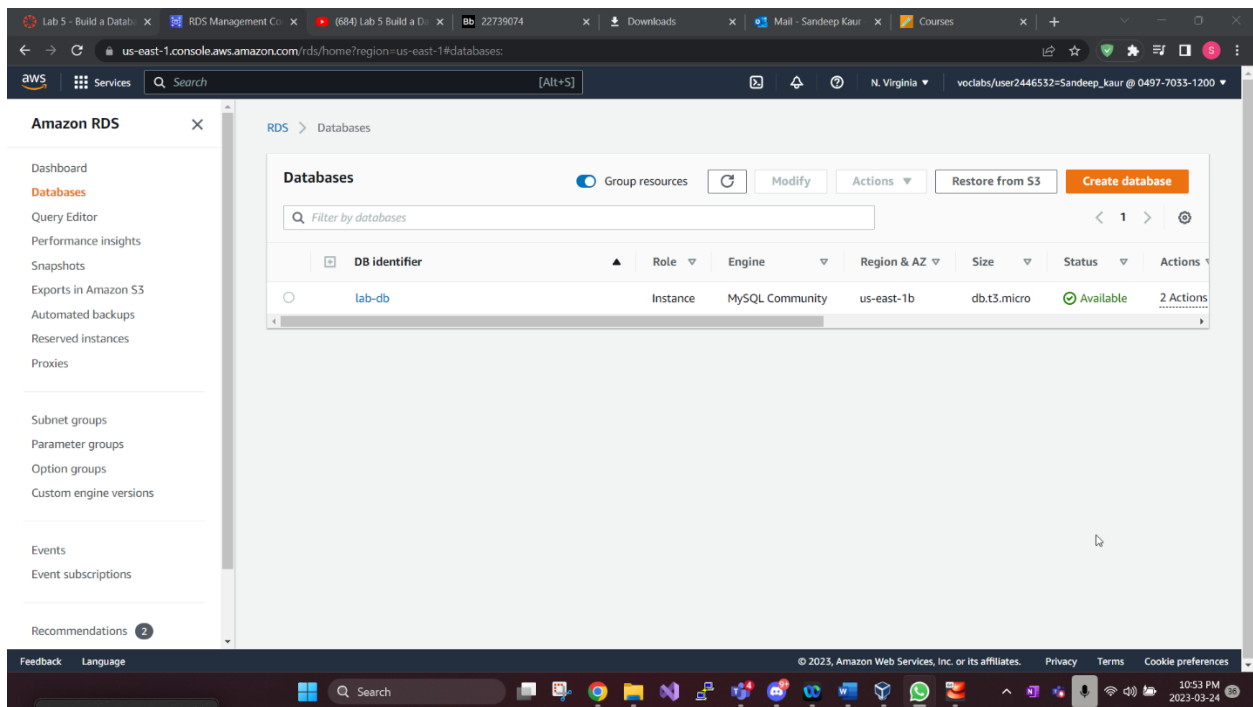
Figure 15 Created DB subnet.

Task 3 Create an Amazon RDS DB Instance: in the left navigation panel I used databases when I used **MySQL** and under settings, I made some changes. After completing all steps, I created database. At the end I got a Endpoint field which I copied for having uses (**Figure 16**).



It took some time. (**Figure 17**)

Figure 17 lab-db



**Task 4 Interact with Your Database:** in this task I opened web server and used RDS link, opened it I used ip address and pasted in another browser (**Figure 18**).

Figure 18 GOT webservice

The screenshot shows the AWS Academy interface for a lab titled "Lab 5 - Build a Database Server". A modal window is open, displaying session details:

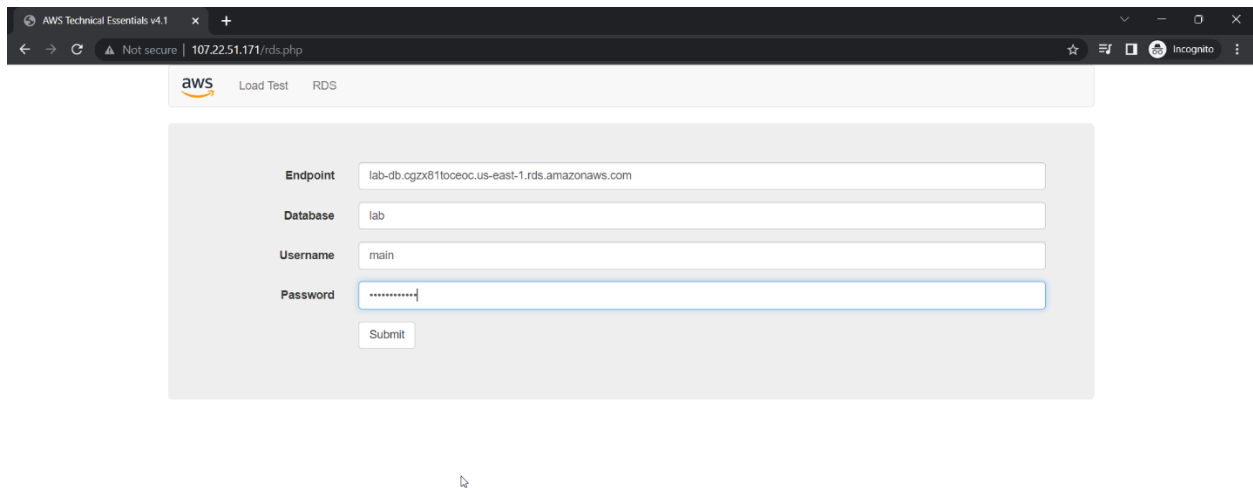
- Session started at: 2023-03-24T19:00:35-0700
- Session to end at: 2023-03-24T20:30:35-0700
- Accumulated lab time: 00:55:00 (55 minutes)
- (1) ips -- public:54.144.55.40, private:10.0.0.18 (2) ips -- public:107.22.51.171, private:10.0.2.148
- SSH key: [Show] [Download PEM] [Download PPK]
- AWS SSO: [Download LRI]

Below the modal, a table displays metadata for the database instance:

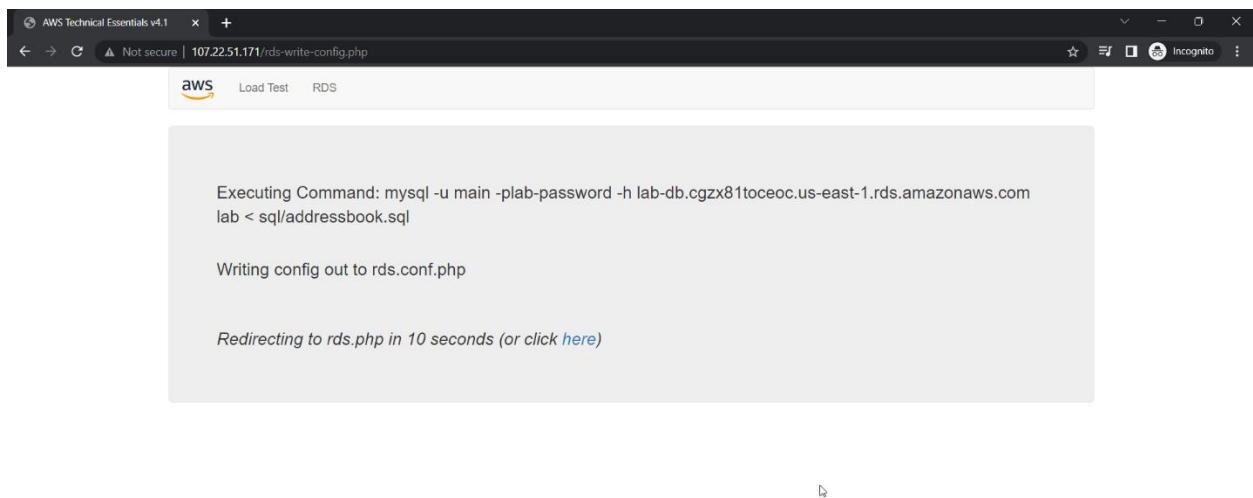
Meta-Data	Value
InstanceId	i-01e75366626c4bc1
Availability Zone	us-east-1b

Current CPU Load: 0%

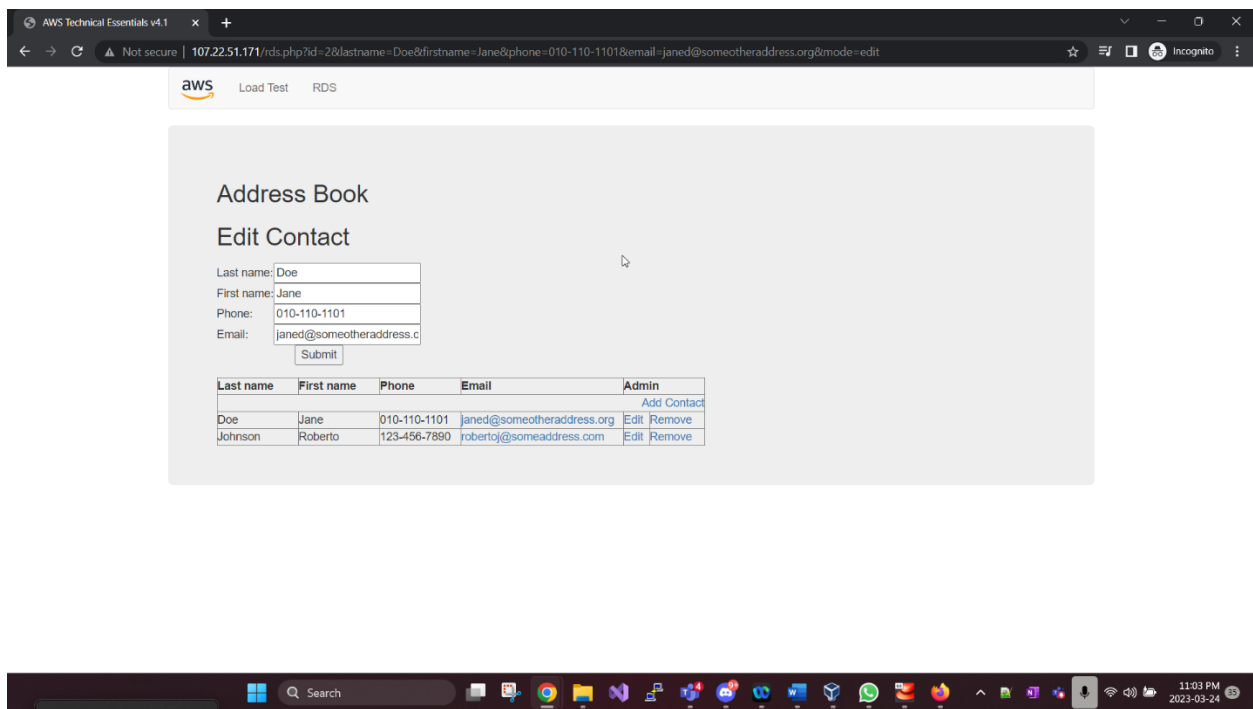
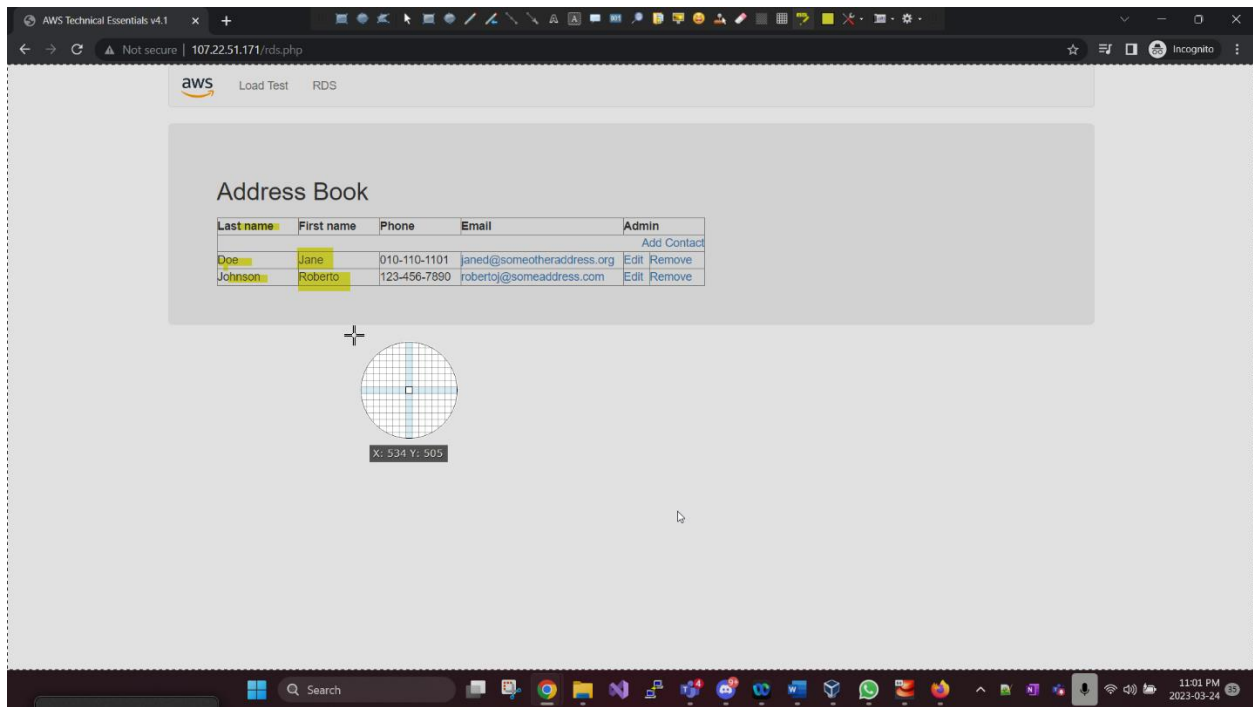
I got an **Address box** where I added **endpoint** and **database, username, password**.



along with it I made some changes.



I completed this lab after editing.





aws Load Test RDS

## Address Book

Data Updated!

Last name	First name	Phone	Email	Admin
Johnson	Roberto	123-456-7890	roberto@someaddress.com	<a href="#">Add Contact</a>
Sandeep	Kaur	010-110-1101	janed@someotheraddress.org	<a href="#">Edit</a> <a href="#">Remove</a>

## Lab Completed

Lab 5 - Build a Database Server

EN\_US

The data is being persisted to the database and is automatically replicating to the second Availability Zone.

### Lab Complete

Congratulations! You have completed the lab.

37. Choose End Lab at the top of this page and then choose Yes to confirm that you want to end the lab.

A panel will appear, indicating that "DELETE has been initiated... You may close this message box now."

38. Choose the X in the top right corner to close the panel.

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ACFv2EN-35... > Modules > Module 8 - D... > Lab 5 - Build a Database Server

Details

AWS

Start Lab

End Lab

00:00:00

Instructions

Actions

EN\_US

Lab ID: arn:aws:cloudformation:us-east-1:049770331200:stack/c71856a144259013809916t1w049770331200/d4243170-cab0-11ed-a005-0a8d1540dabd

Creation Time: 2023-03-24T19:00:34-0700

You may close this message box now. Lab resources are terminating ...

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11:09 PM

2023-03-24