Home / AWS / Guided Lab / SSH into EC2 Instance whose key pair is lost

SSH into EC2 Instance whose key pair is lost

Level: **Fundamental**

Amazon EC2 | Amazon Web Services

English

WHIZLABS

1h 29m 31s left

15 MIN

End Lab

Open Console

Validation

Lab Credentials

User Name

Whiz_User_80425.53874311

Password

c84927fc-ae3b-4a9c-9945-4700f152b6d6

Access Key

AKIAS2EJVXJBEBS5F35H

Secret Key

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

Lab Resources

No Lab Resources Found

Support Documents

1. FAQs and Troubleshooting
2. SSH into EC2 Instance
3. Labs - Instructions and Guidelines

Need help?

How to use Hands on Lab

Troubleshooting Lab

FAQs

Submit Feedback Share

Lab Overview | Lab Steps | Lab Validation

Cloud Administrator

Compute

Lab Steps

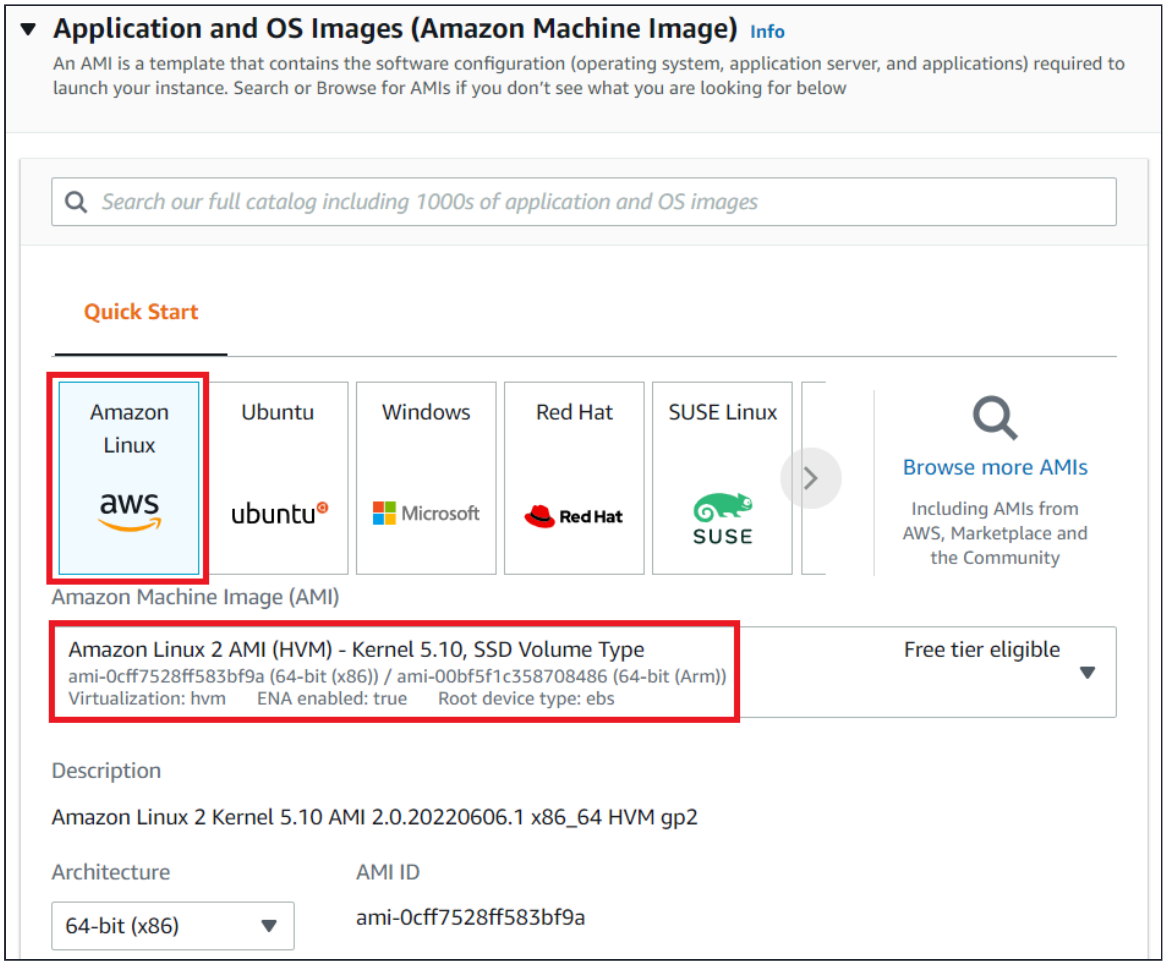
Task 1: Sign in to AWS Management Console

1. Click on the **Open Console** button, and you will get redirected to AWS Console in a new browser tab.
2. On the AWS sign-in page,
   - Leave the Account ID as default. Never edit/remove the 12 digit Account ID present in the AWS Console. otherwise, you cannot proceed with the lab.
   - Now copy your **User Name** and **Password** in the Lab Console to the **IAM Username and Password** in AWS Console and click on the **Sign in** button.
3. Once Signed In to the AWS Management Console, Make the default AWS Region as **US East (N. Virginia) us-east-1.**

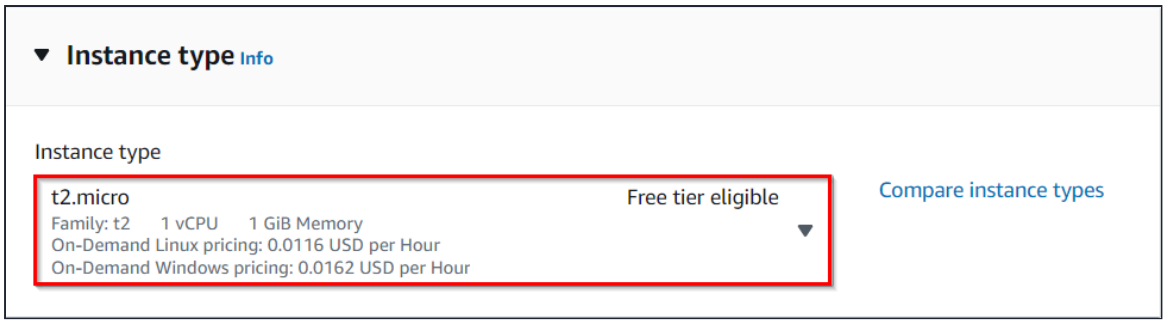
Task 2: Launching an EC2 Instance

In this task, our goal is to simply launch an EC2 Instance by providing specific details such as the instance name, AMI, instance type, key pair, and other necessary information.

1. Make sure you are in the **N. Virginia(us-east-1)** Region.
2. Navigate to **EC2** by clicking on the **Services** menu in the top left, then click on **EC2** in the **Compute** section.
3. Navigate to **Instances** from the left side menu and click on **Launch Instances** button.
4. Under the **Name and tags** section :
    - Name : ***Original_instance***
5. Under the **Application and OS Images (Amazon Machine Image)** section :
    - Select **Quick Start** tab and **Amazon Linux** under it
    - Amazon Machine Image (AMI) : select ***Amazon Linux 2 AMI***
    - **Note: if there are two AMI's present for Amazon Linux 2 AMI, choose any of them.**

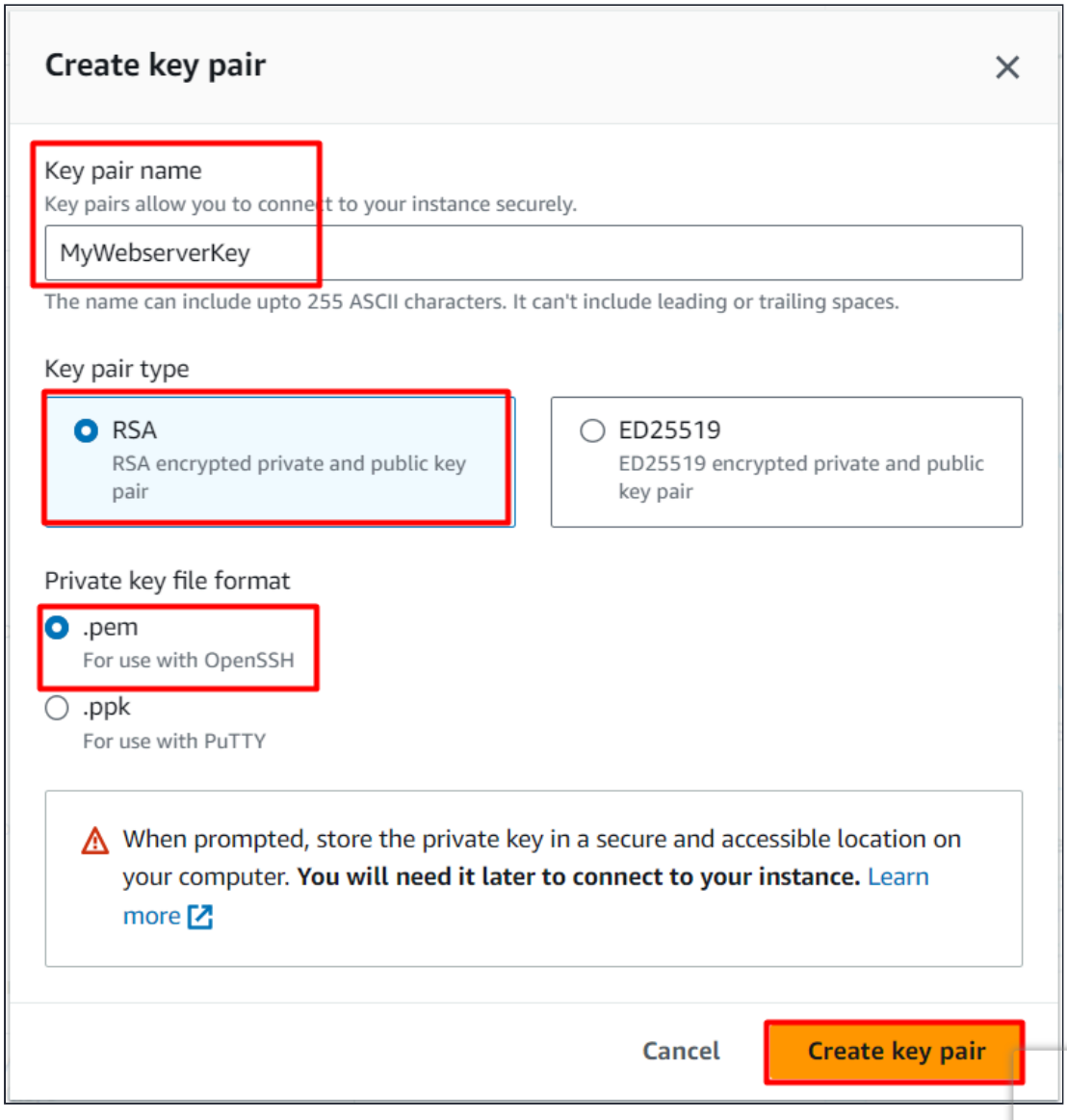


6. Under the **Instance Type** section **:**
    - Instance Type : Select **t2.micro**

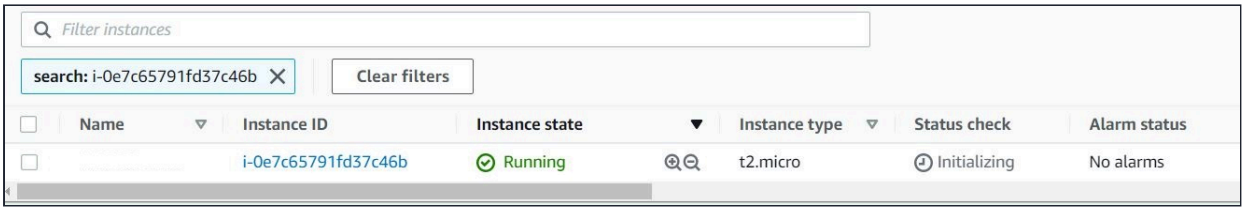


7. Under the **Key Pair (login)** section **:**

- Click on **Create new key pair** hyperlink
- Key pair name: ***MyWebserverKey***
- Key pair type: **RSA**
- Private key file format: **.pem** or **.ppk**
- Click on **Create key pair** and select the created key pair.



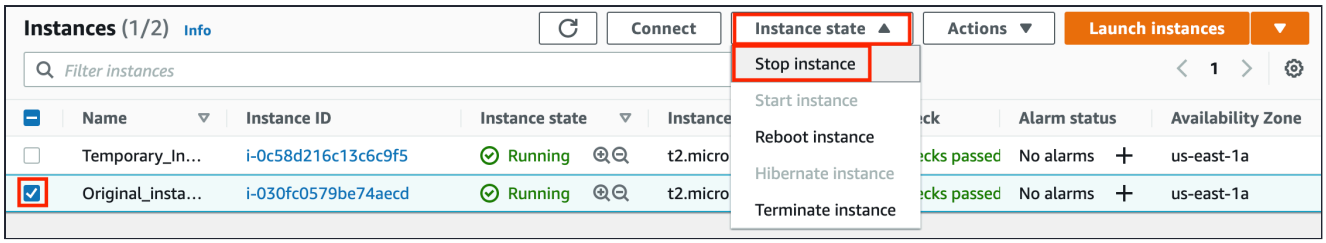
8. Under the **Network Settings** section **:**
    - Click on **Edit** button
    - Subnet**:** Select the Subnet having Availability zone **us-east-1a**
    - Auto-assign public IP: select ***Enable***
    - Firewall (security groups) : Select **Create a new security group**
    - Security group name : Enter ***MyEC2Server_SG***
    - Description : Enter ***Security Group to allow traffic to EC2***
    - To add **SSH:**
        - Choose Type: **SSH**
        - Source: **Anywhere** (From ALL IP addresses accessible)
9. Keep everything else as default and click on the **Launch instance** button.
10. **Launch Status:** Your instance is now launching, Navigate to **Instances** page from the left menu and wait until the status of the EC2 Instance changes to **running**.



Task 3: Stop the Original Instance

In this task, we are going to stop the created instance considering that it's key pair is lost.

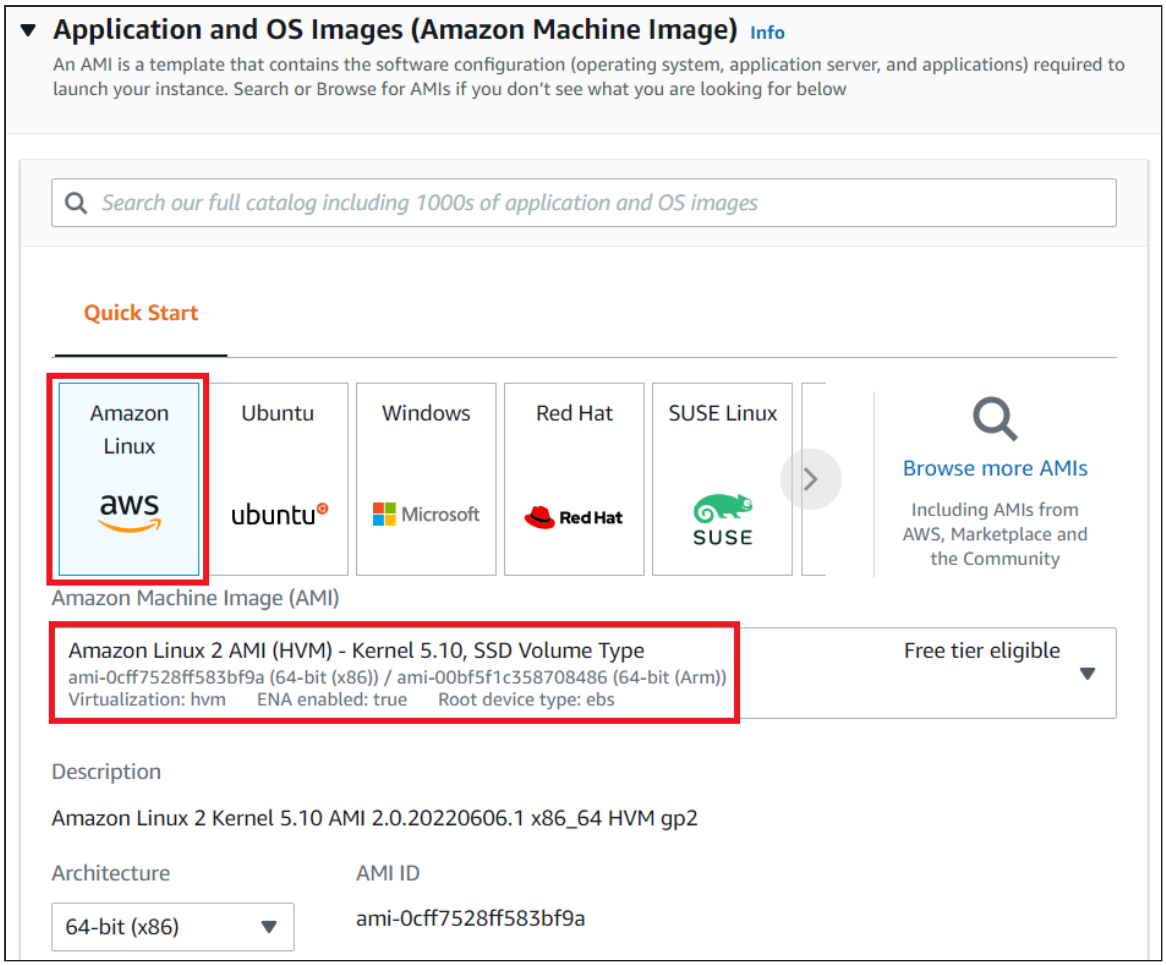
1. Suppose your key pair is lost. And, you want to SSH.
2. Stop the Instance first to detach the root volume.
3. To stop the instance follow the below steps:
    - **Select** the present instance.
    - Click on the **Instance state** present on the top.
    - Select **Stop instance** button.



Task 4: Launch a temporary instance

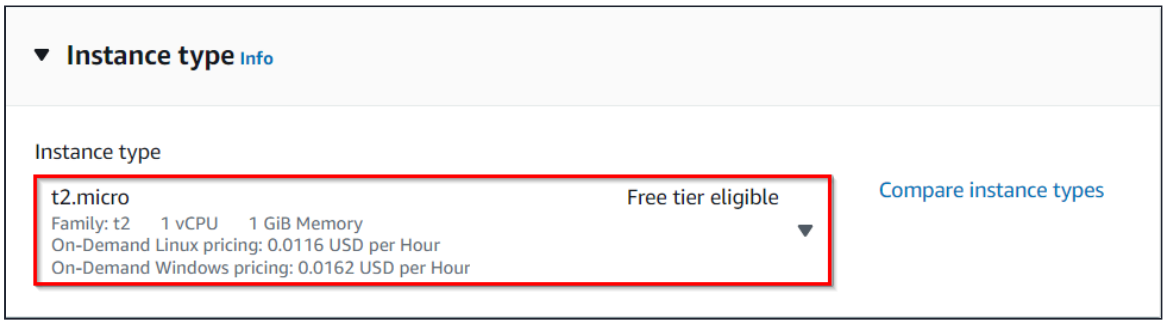
In this task, we are going to launch a temporary instance similar to the original instance.

1. Make sure you are in the **N. Virginia(us-east-1)** Region.
2. Navigate to **EC2** by clicking on the **Services** menu in the top left, then click on **EC2** in the **Compute** section.
3. Navigate to **Instances** from the left side menu and click on **Launch Instances** button.
4. Under the **Name and tags** section :
    - Name : ***Temporary_Instance***
5. Under the **Application and OS Images (Amazon Machine Image)** section :
    - Select **Quick Start** tab and **Amazon Linux** under it
    - Amazon Machine Image (AMI) : Select ***Amazon Linux 2 AMI***
    - **Note: if there are two AMI's present for Amazon Linux 2 AMI, choose any of them.**



6. Under the **Instance Type** section **:**

- Instance Type : Select **t2.micro**



7. Under the **Key Pair (login)** section **:**

- Click on **Create new key pair** hyperlink
- Key pair name: Enter ***Temp_key***
- Key pair type: **RSA**
- Private key file format: **.pem** or **.ppk**
- Click on **Create key pair** and select the created key pair.

8. Under the **Network Settings** section **:**

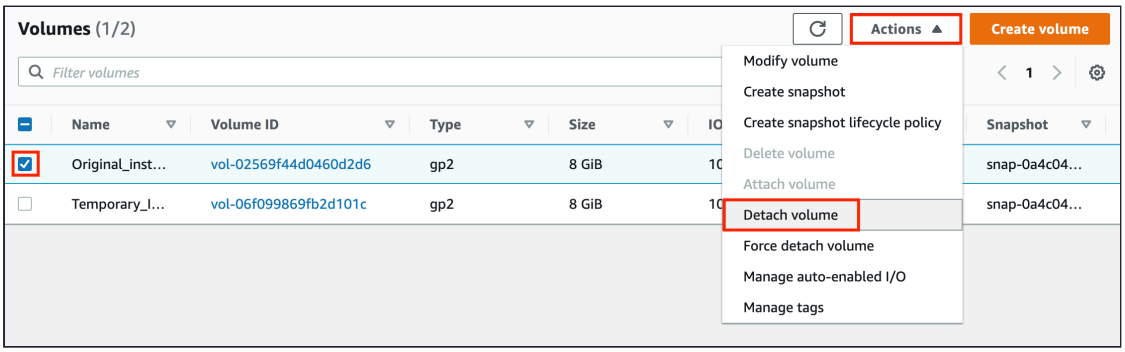
    - Click on **Edit** button.
    - **Subnet:** Select the Subnet having Availability zone **us-east-1a**
    - Auto-assign public IP: Select ***Enable***
    - Firewall (security groups) : Select **Select an existing security group**
    - Common security groups : Select Security group with name **MyEC2Server_SG**

9. Keep everything else as default and click on the **Launch instance** button.
10. **Launch Status:** Your instance is now launching, Navigate to **Instances** page from the left menu and wait until the status of the EC2 Instance changes to **running**.

Task 5: Detach the root volume of the first instance and attach it to the temporary instance

1. In the navigation panel, choose **Volumes** present below the **Elastic Block Store.**
2. Select the volume of the Original instance and detach.
3. To detach the volume, follow the steps below:

    - **Select the volume of Original_instance**
    - Click on the **Actions** button
    - Choose the option of **Detach volume**.



    - Click on **Detach** button.

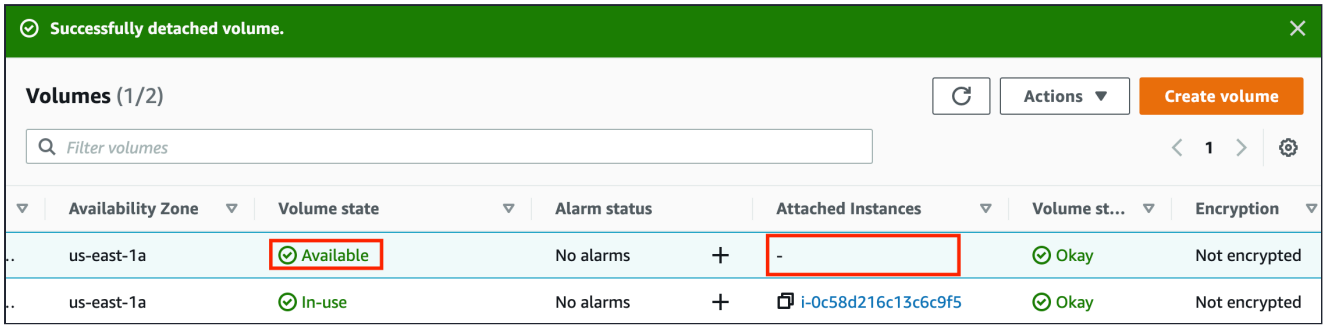
4. If you are getting errors like this, this means you have not stopped the Instance.

Failed to detach volume.

- vol-02569f44d0460d2d6: Unable to detach root volume 'vol-02569f44d0460d2d6' from instance 'i-030fc0579be74aecd'

5. If the instance is stopped, then the volume will be detached immediately.

6. Volume state has been changed to **Available** now and In the Attached Instance option, there will be **no instance ID**. Scroll towards the right side to see.

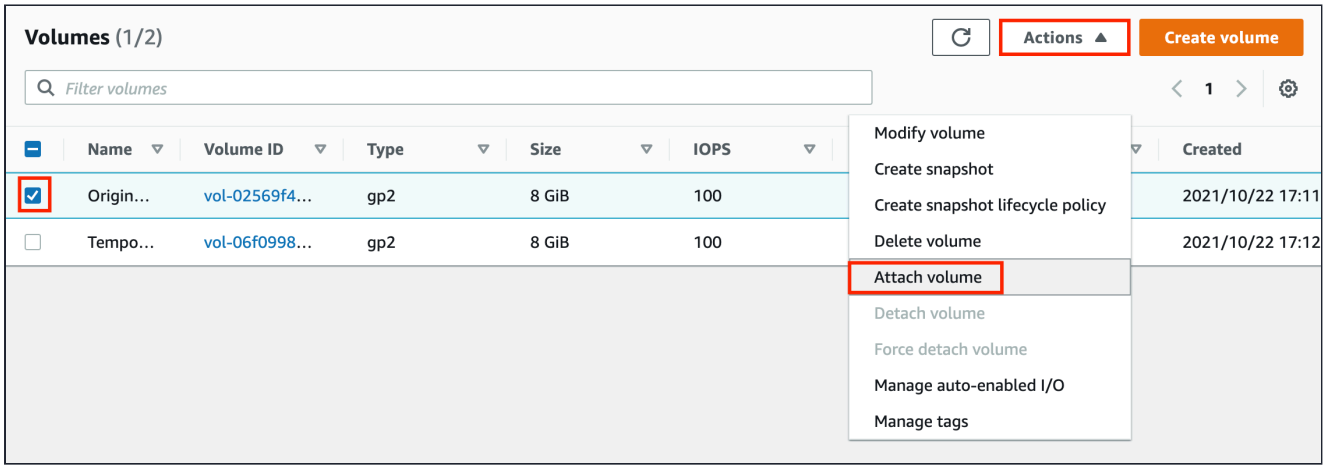


7. Once the instance volume is in an Available state, it means it can be attached with any instance.

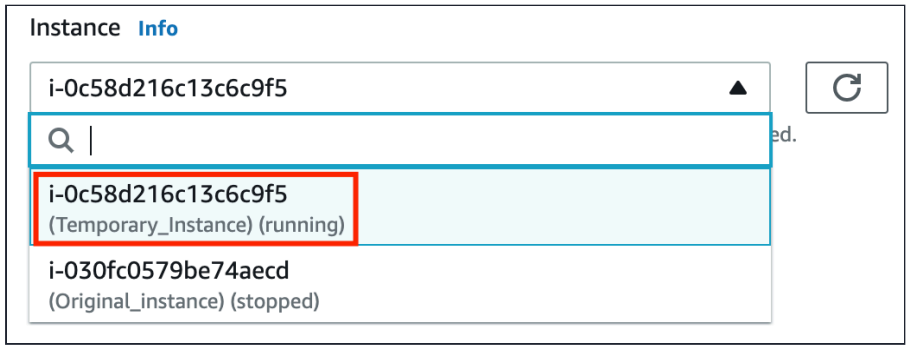
8. Select the same volume and attach it with the **Temporary_instance**.

9. To attach follow the steps mentioned below.

- Select the volume of **Original_instance**
- Click on the **Actions** button
- Choose the option of **Attach volume**.



10. In the next menu, select the Instance as **Temporary_instance** having **running** as a state.

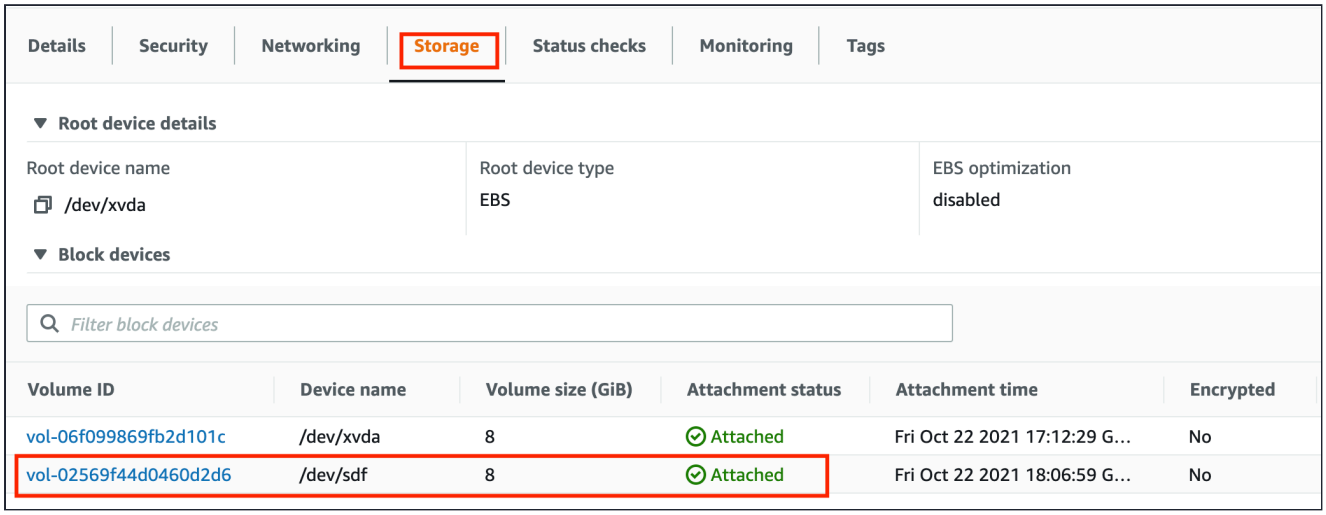


11. Let the device name be the same as the default and click on the **Attach volume** button.

12. The volume will be attached to the temporary instance.

13. Go to the instance page, and click on the Temporary instance's instance-id. The instance will be running state.

14. Confirm that volume is attached to the **temporary_instance** by clicking on the **Storage** tab below.



Task 6: Add the new public key information to the Original_instance

1. Suppose your key pair is lost. And, you want to SSH.
2. SSH into the temporary instance using the new key pair, Temp_key.
3. Mount the new volume to access the file system.
4. The name of the new volume is /dev/sdf, and you will mount it on /mnt/newvol.
5. To determine the name of all the partitioned, run the below command:

```
lsblk
```

```
[ec2-user@ip-172-31-88-125 ~]$ lsblk
NAME    MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda    202:0    0   8G  0 disk
`-xvda1 202:1    0   8G  0 part /
xvdf    202:80   0   8G  0 disk
`-xvdf1 202:81   0   8G  0 part
[ec2-user@ip-172-31-88-125 ~]$
```

6. Create a temporary directory for the new volume to mount using the below command.

```
sudo mkdir /mnt/newvol
```

7. Mount the volume at the temporary mount point.

```
sudo mount -o nouuid /dev/xvdf1 /mnt/newvol
```

8. Copy the new SSH key information from root device of temporary_instance to new volume

```
cp .ssh/authorized_keys /mnt/newvol/home/ec2-user/.ssh/authorized_keys
```

Task 7: Unmount and detach temporary volume and attach to the original instance

1. To Unmount, run the following command:

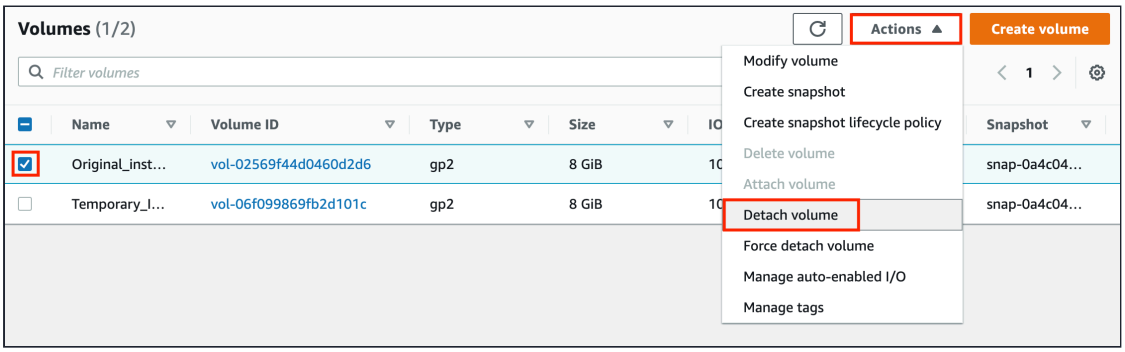
```
sudo umount /mnt/newvol
```

2. Detach the volume from the temporary instance and attach it to the original instance.

3. To detach the volume, In the navigation panel, choose **Volumes** present below the **Elastic Block Store.**

4. Select the volume of the Original instance and detach by following the below steps.

   - **Select the volume of Original_instance**
   - Click on the **Actions** button
   - Choose the option of **Detach volume**.

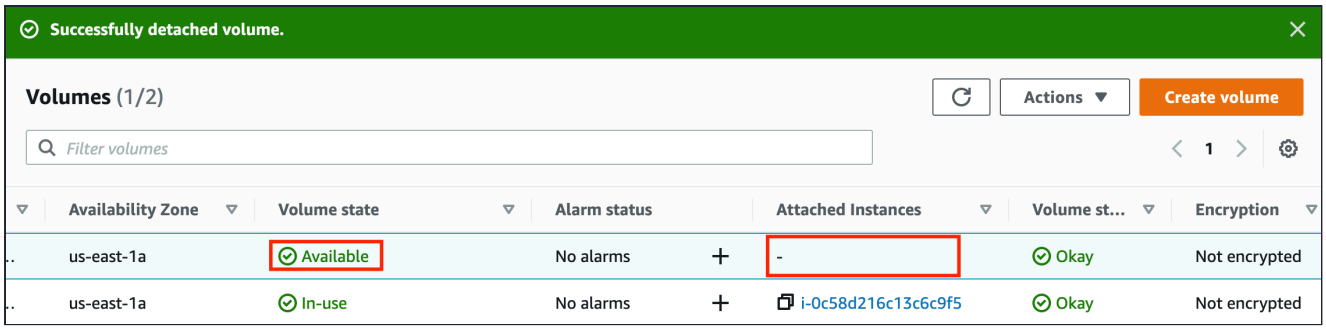


5. If you are getting errors like this, this means you have not stopped the Instance.

Failed to detach volume.
- vol-02569f44d0460d2d6: Unable to detach root volume 'vol-02569f44d0460d2d6' from instance 'i-030fc0579be74aecd'

6. If the instance is stopped, then the volume will be detached immediately.

7. Volume state has been changed to **Available** now and In the Attached Instance option, there will be **no instance ID**. Scroll towards the right side to see

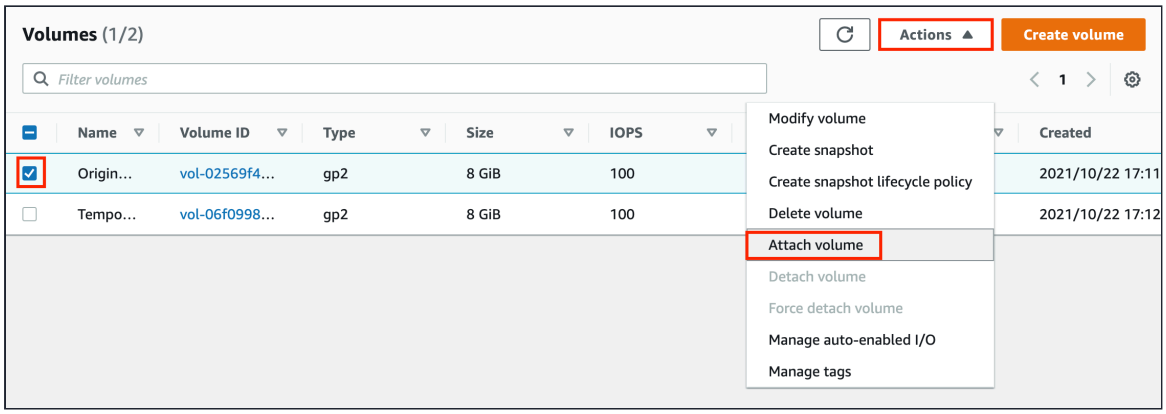


8. Once the volume is in an Available state, it can be attached to any instance.

9. Let's attach it with the Original_instance, which is in a Stopped state.

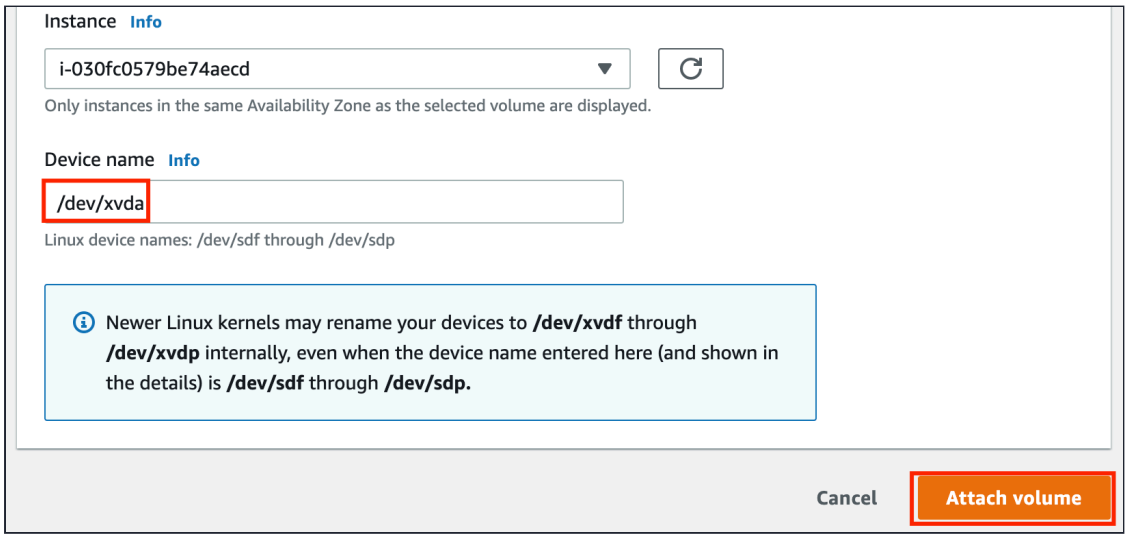
10. To attach follow the steps mentioned below.

- Select the volume of **Original_instance**
- Click on the **Actions** button
- Choose the option of **Attach volume**.



11. In the next menu, select the Instance as **Original_instance** having **running** as a state.

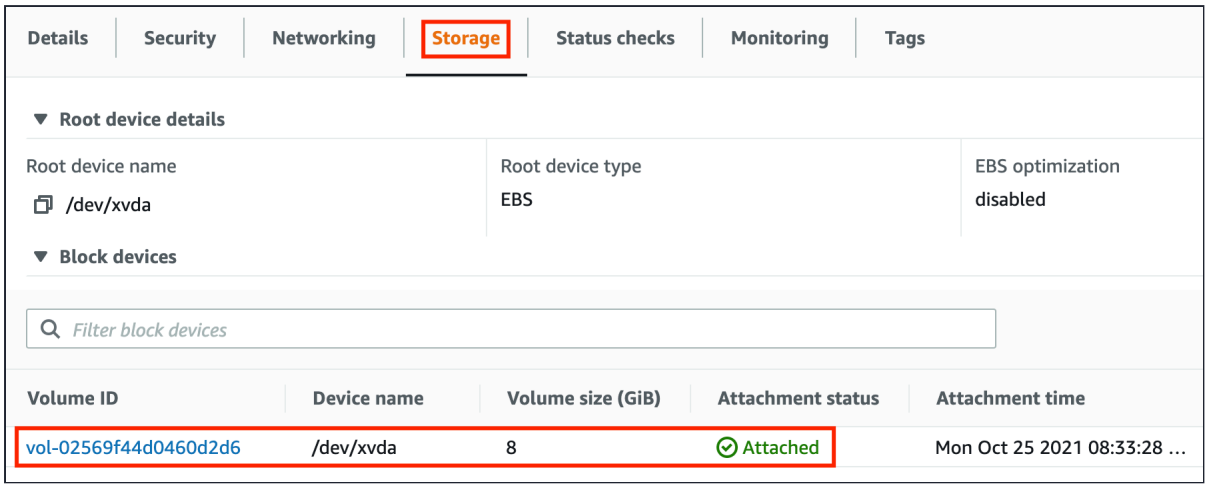
12. Change the device name to **/dev/xvda** and click on the **Attach volume** button.



13. The volume will be attached to the original instance.

14. Go to the instance page, and click on the Original instance's instance-id.

15. Confirm that volume is attached to the Original_instance by clicking on the **Storage** tab below.



Task 8: SSH into Original_instance using Temp key pair

1. Start the Instance first.
2. To start the instance, follow the steps listed below:
    - **Select** the Original EC2 Instance
    - Click on the **Instance state**
    - Choose the **Start instance** option.
3. Wait for the Instance to be in the Running state. Remember to SSH into the Original Instance using **Temp_key** which we have created for the temporary instance.

    Example: ssh -i "Temp_key.pem" ec2-user@<original instance public IP address>

    Note: because we have copied the temporary instance public key to the original instance, so we can only able to SSH only using the **Temp_key.**

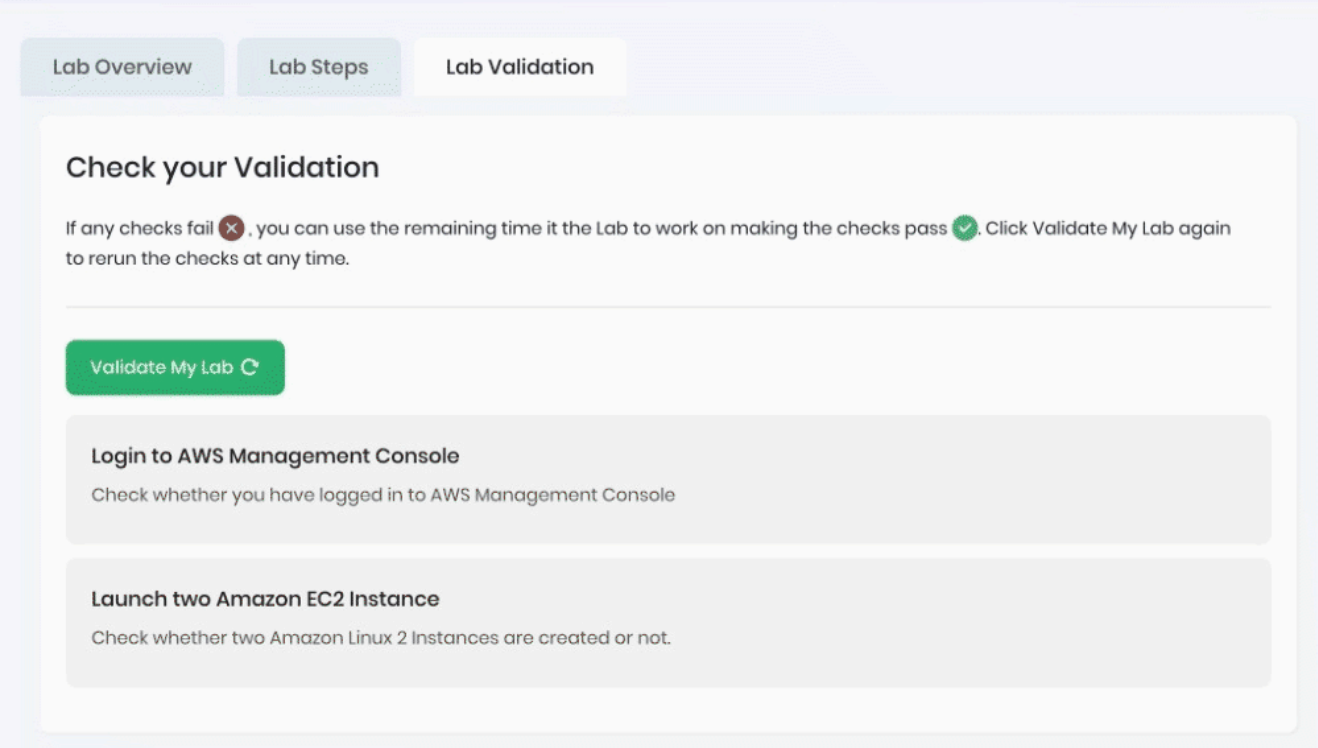
4. To SSH use the key pair of the 2nd instance, follow the guide **/labs/support-document/ssh-into-ec-instance**

Do You Know?

AWS key pairs use public key cryptography for secure communication. The public key is used for encryption, and the private key is used for decryption.

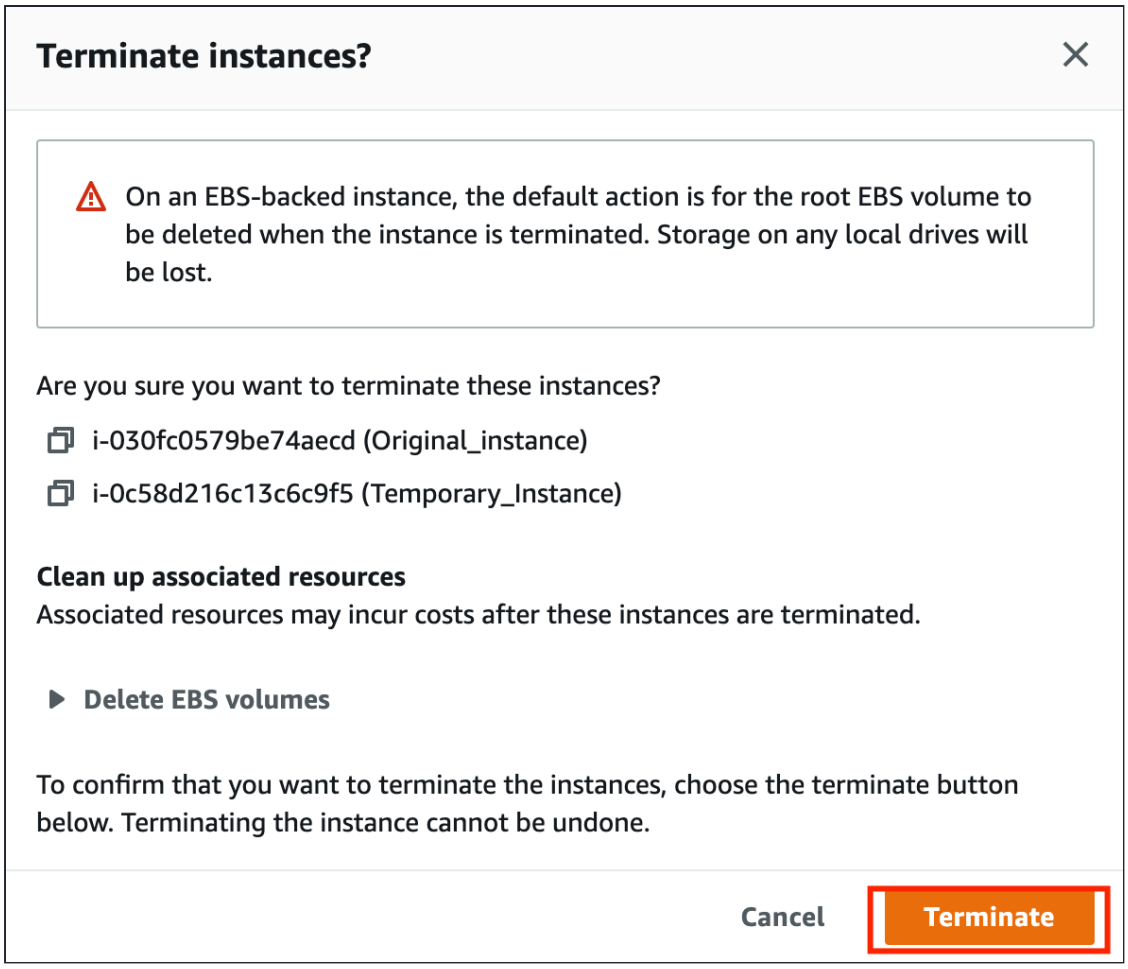
Task 9 : Validation of the Lab

1. Once the lab steps are completed, please click on the **Validation** button on the left side panel.
2. This will validate the resources in the AWS account and displays whether you have completed this lab successfully or not.
3. Sample output :



Task 10: Delete the AWS Resouces

1. Navigate to **EC2** by clicking on the **Services** menu in the top left, then click on **EC2** in the **Compute** section.
2. Navigate to **Instances** on the left panel.
3. To terminate both the EC2 Instances, perform the below steps
    - Select both the Instances
    - Click on the **Instance state**
    - Choose the option of **Terminate Instance**
    - Click on the **Terminate** button in the pop-up menu. The instance will be terminated in a few minutes.



Completion and Conclusion

1. You have successfully created and launched 2 Amazon EC2 instances.
2. You have successfully detached the volume from the Original instance which is in a stopped state and attached it with the temporary instance.
3. You have successfully mounted the new volume into the temporary instance and copied the key pair information.
4. You have successfully unmounted the new volume and detached it from the temporary instance and attached it with the original instance.
5. You have successfully accessed the EC2 instance by SSH using new key pair.

End Lab

1. Sign out of AWS Account.
2. You have successfully completed the lab.
3. Once you have completed the steps, click on **End Lab** from your whizlabs dashboard.