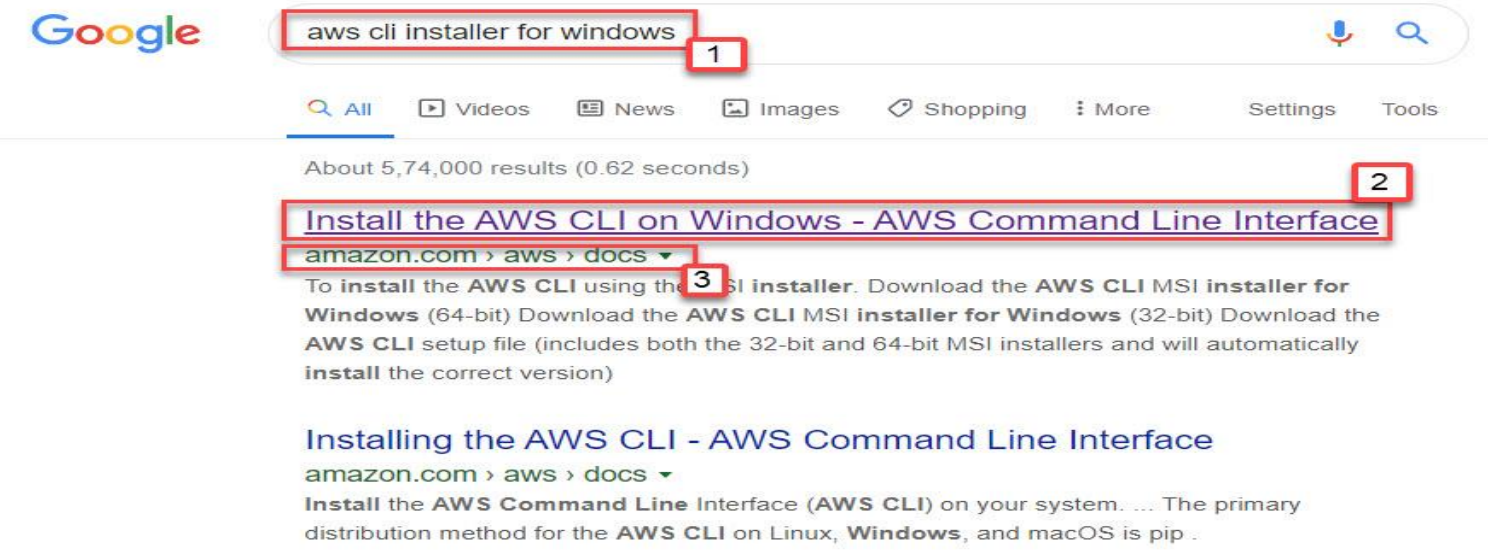
AWS CLI

GOAL

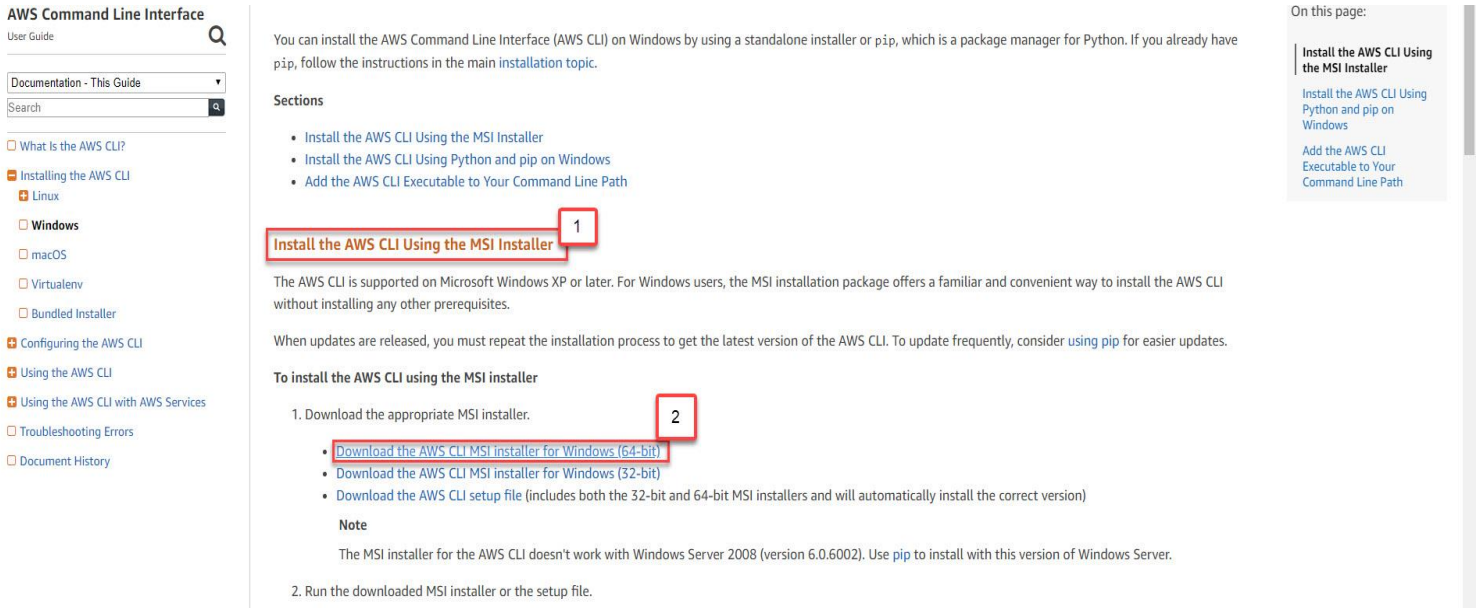
1. Install AWS CLI
2. Create EC2 Instance from CLI

Download aws CLI Installer from the aws website.

1. In to google search bar type aws cli installer for windows
2. Open First Searched link
3. Make Sure that Link must me amazon website.

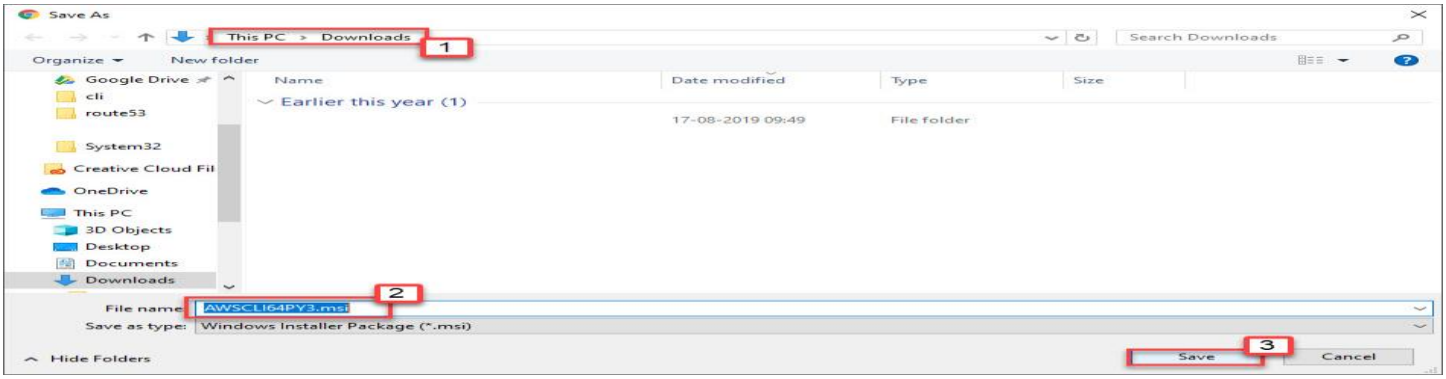


1. From the aws cli website go to Install AWS CLI Using the MSI Installer
2. Select download AWS CLI installer **(Select installer as per your desktop configuration)**



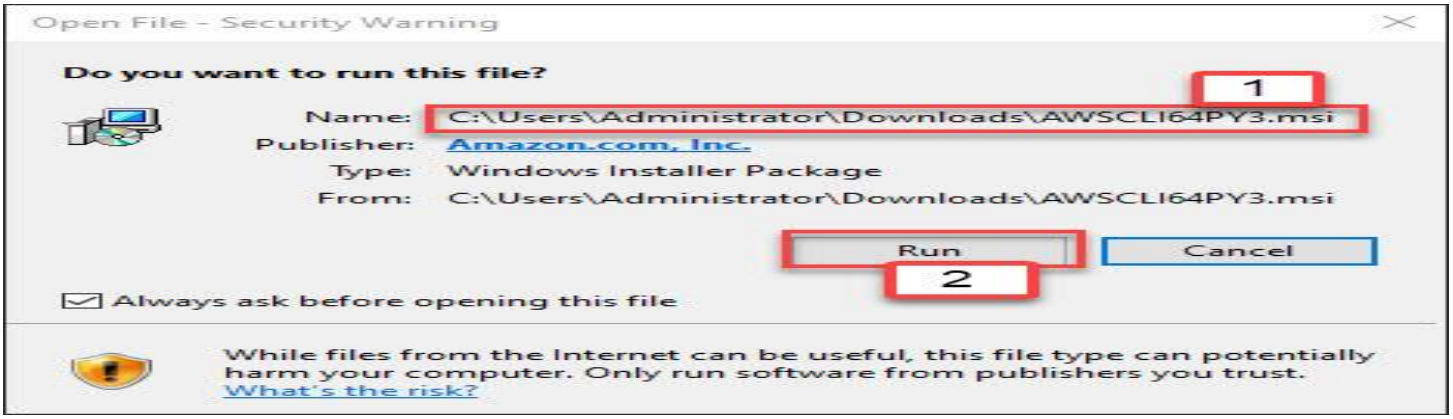
AWS CLI

1. Select download location and note down.
2. Now down MST File Name
3. Click Save

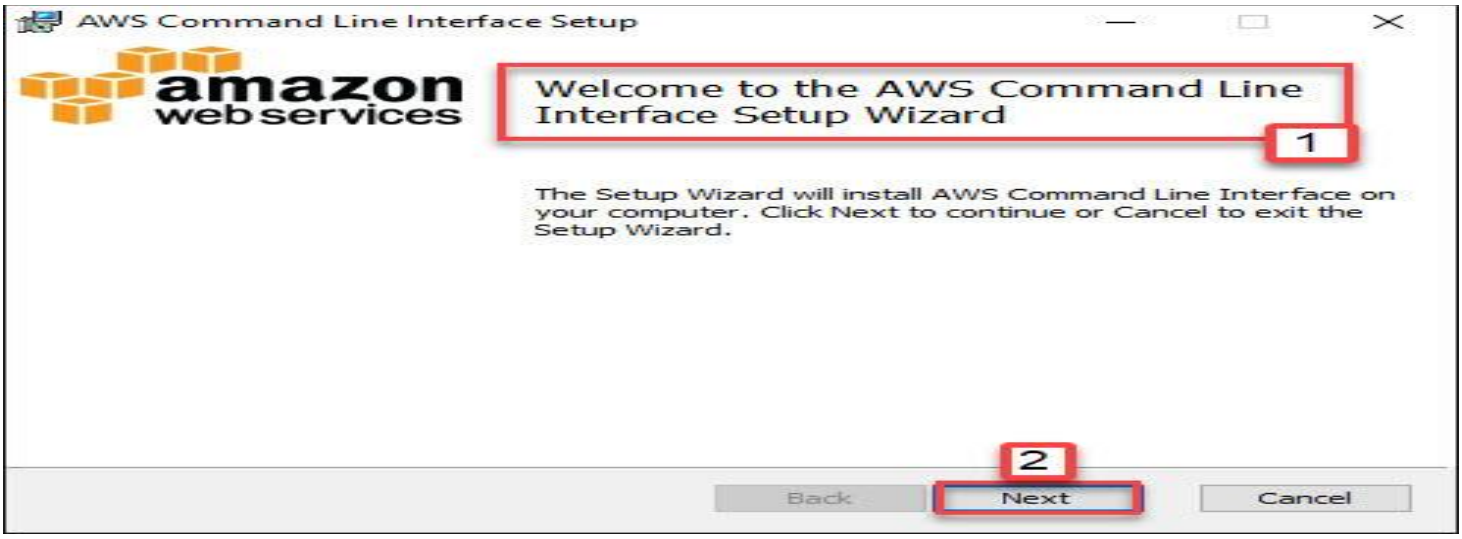


Double Click AWSCLI64PY3.MSI once download completed

1. Make Sure about file name.
2. Click Run

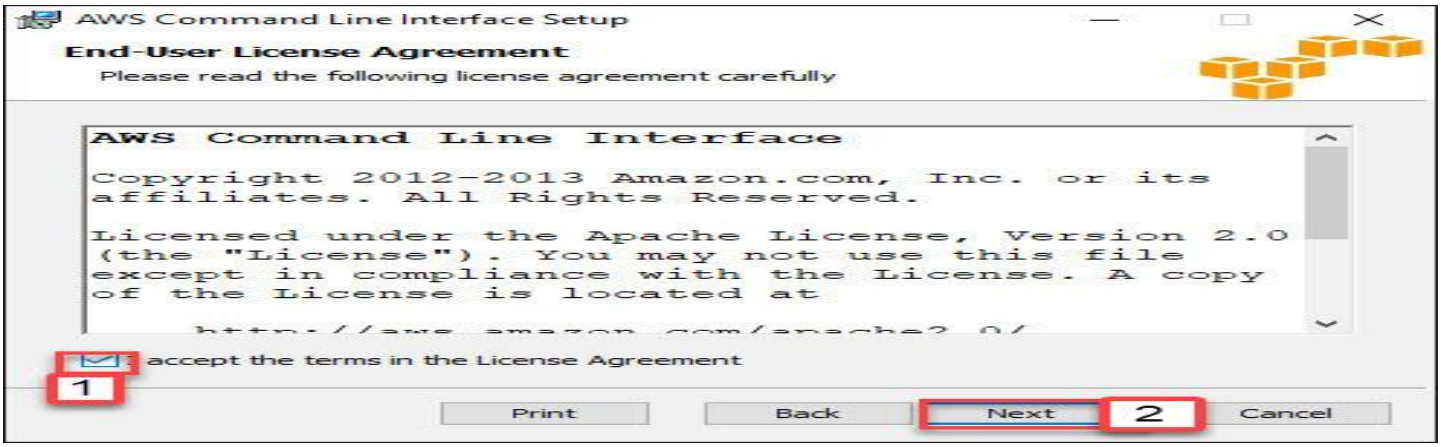


1. Make sure you are installing aws CLI
2. Click Next

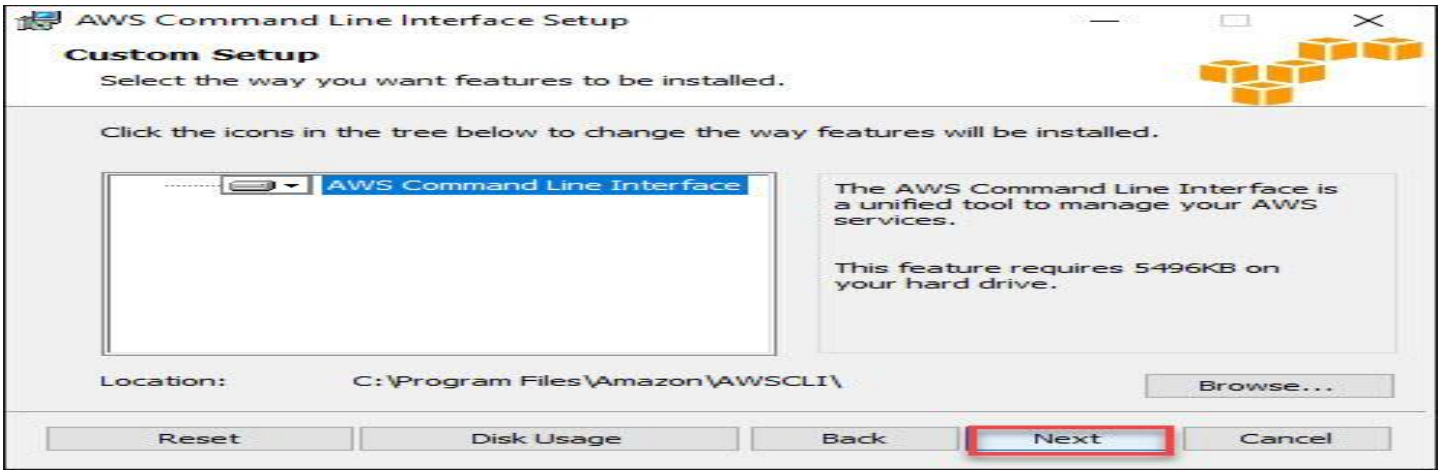


AWS CLI

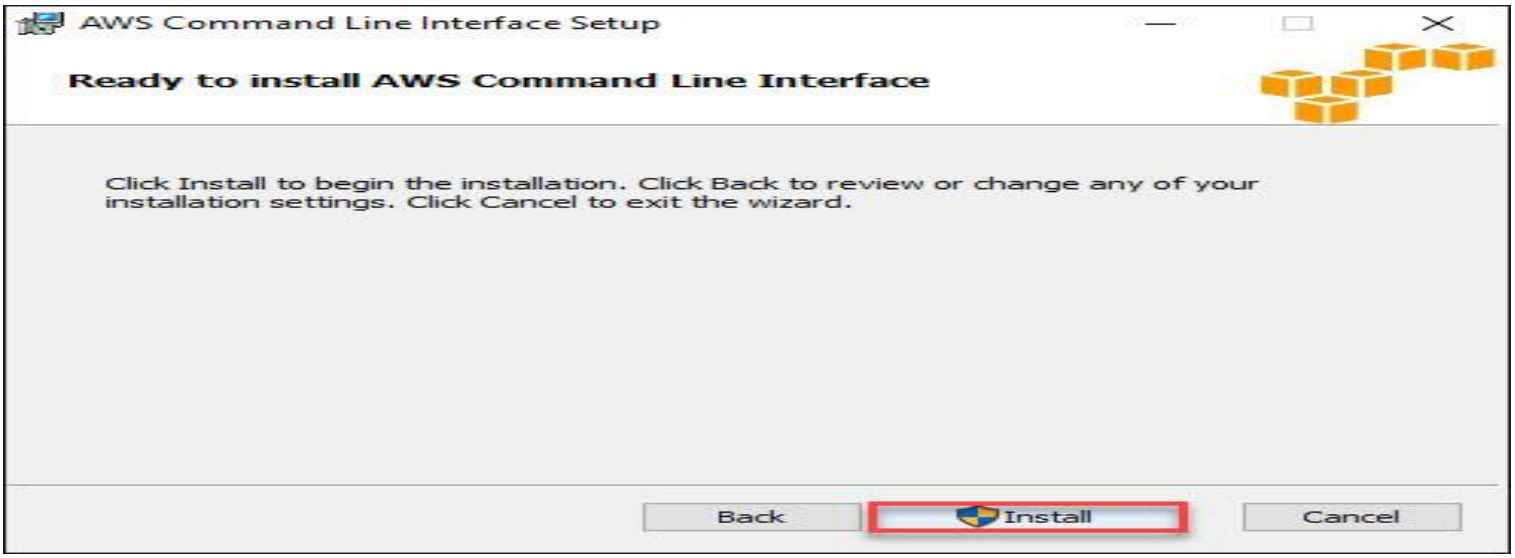
1. Accept the terms in the License Agreement
2. Next



Click Next



Click Install



Wait for installation to complete.

AWS CLI

AWS CLI is Installed in our system.

Now in the following step we will create EC2 Instance from CLI.

To Open AWS CLI

1. Type AWS Configure on windows command prompt and press enter.

Here you have to provide Access Key ID and Security Key

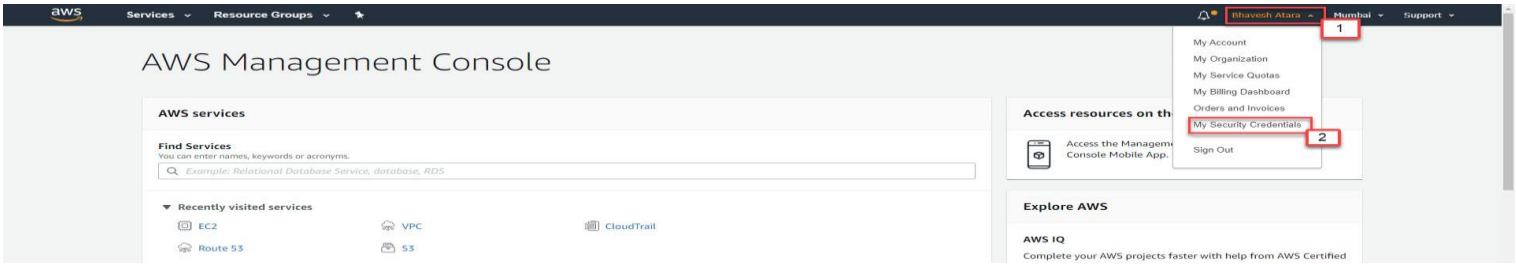
If you already having Access Key ID and Security Key enter it here

If You don't have Access Key ID and Security Key for Your root account minimize command line windows here and go for next step in which you will get access key and security key.

To Download Access Key and Security Key

Log on to your aws GUI console using your username and password.

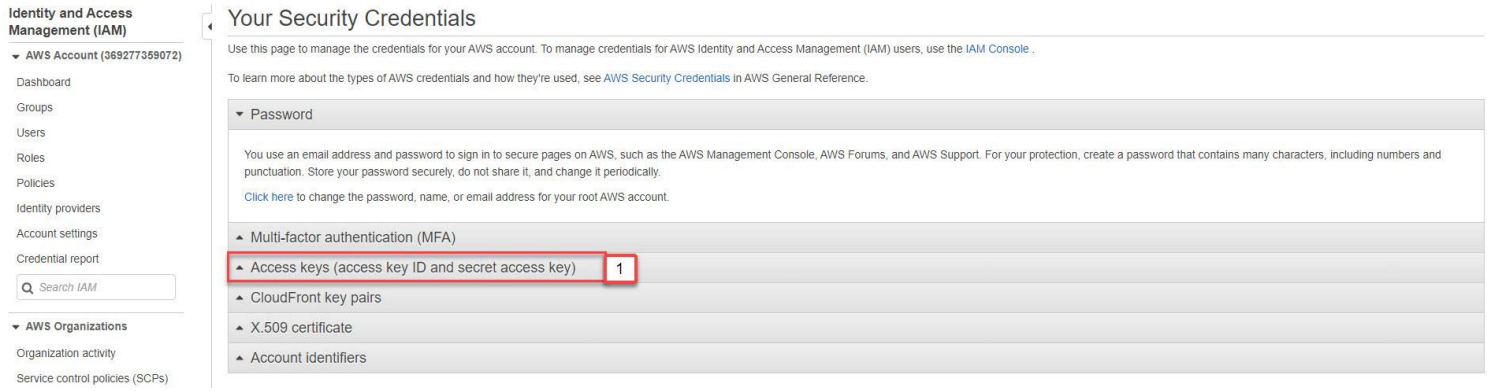
1. Click On your account name (Upper right corner)
2. Click My Security Credentials



1. Continue to Security Credentials

AWS CLI

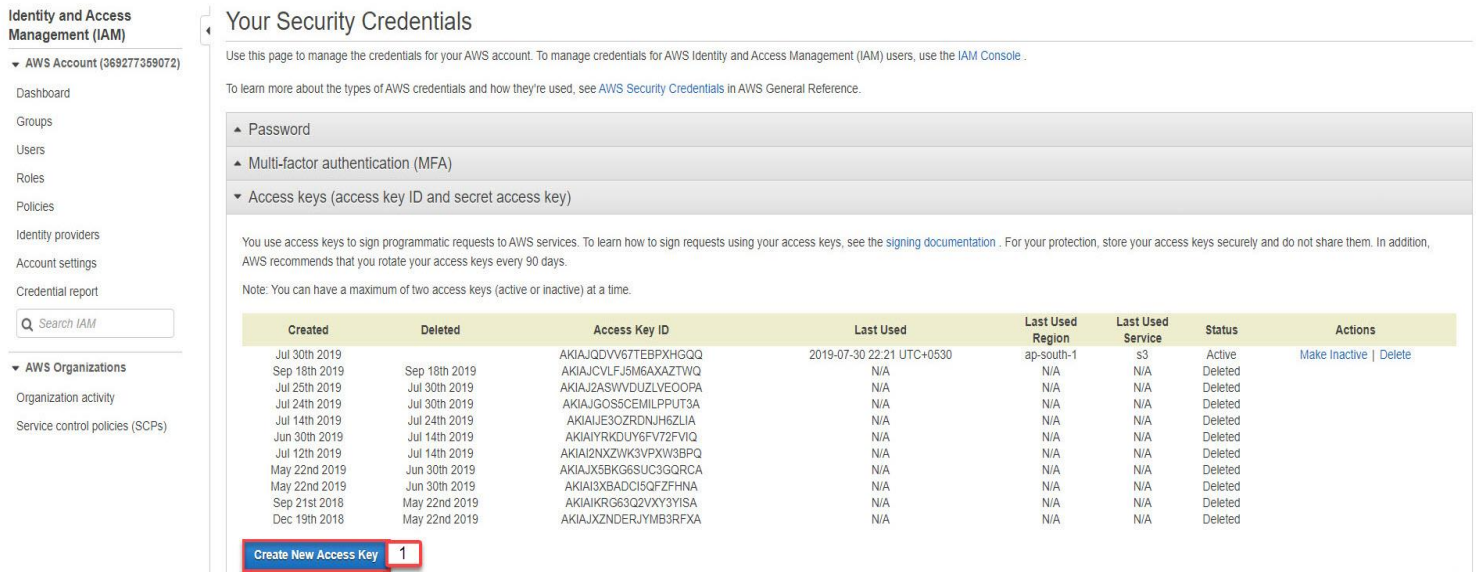
1. Click On Access-Keys



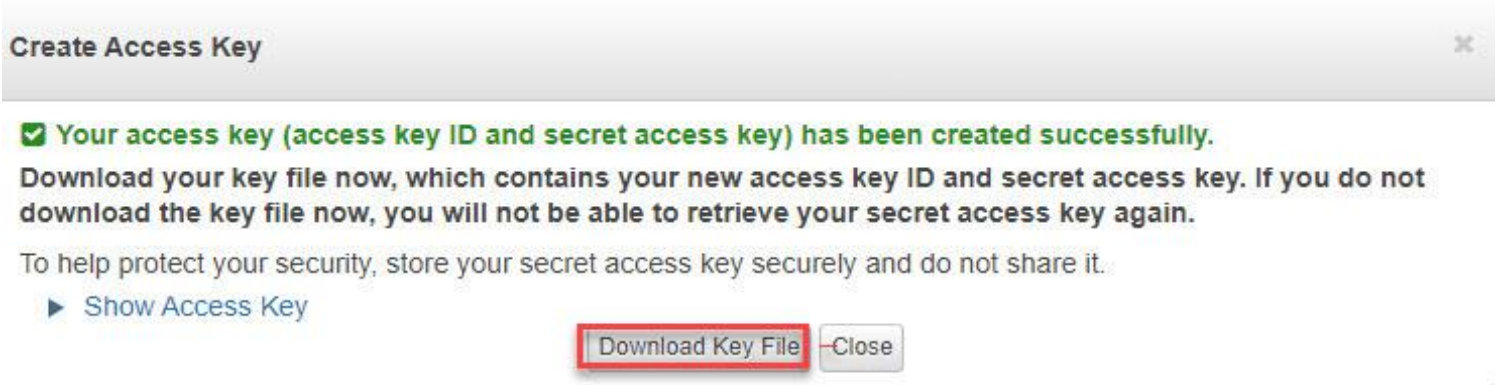
1. Click Create New Access Key

Note – If Create New Access Key is Greyed out it means you are already having 2 active key in this case either you have to use your old key or you can delete existing active key and create new.

as per aws rule use can create maximum 2 access key.



Click Download Key File.



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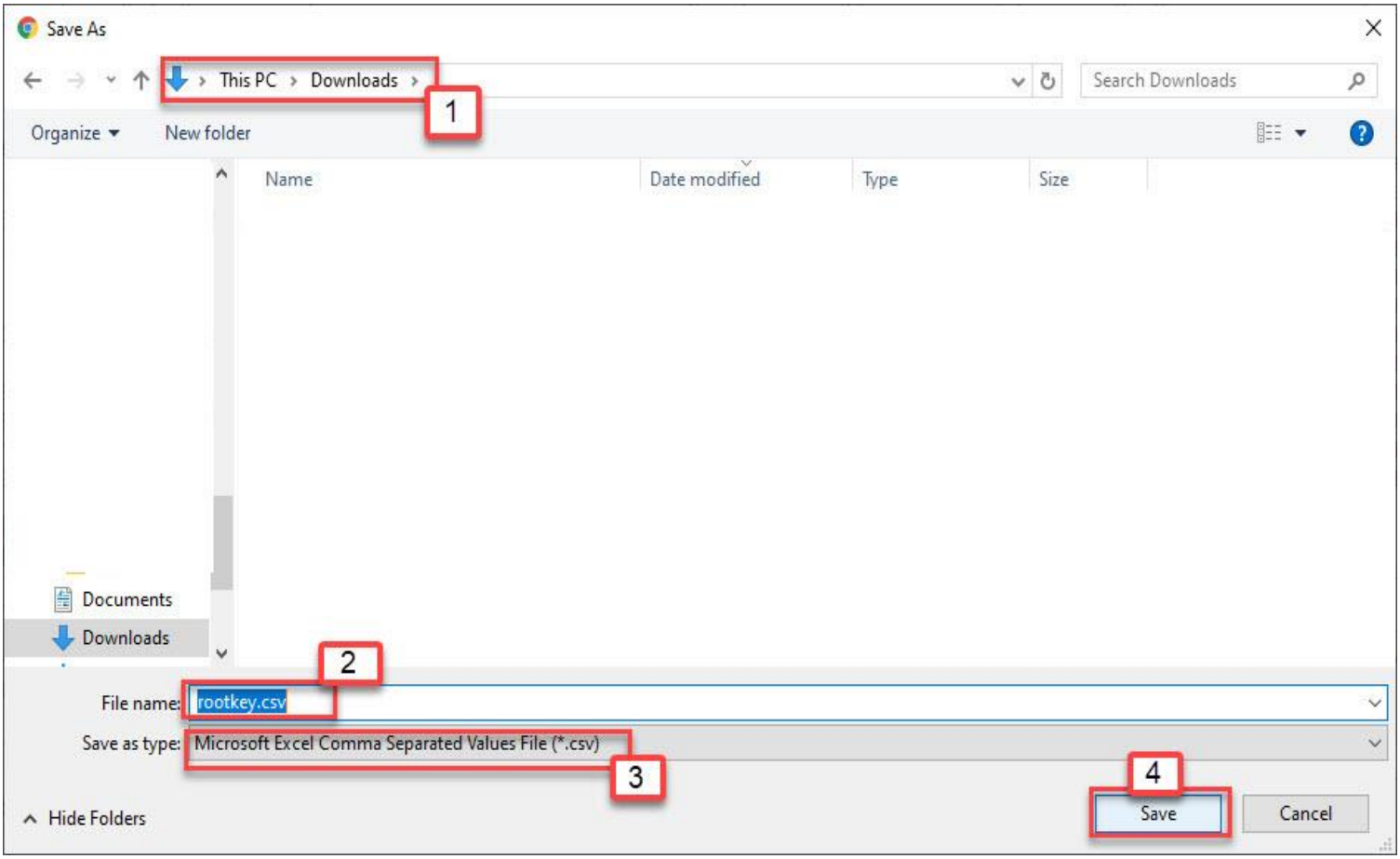
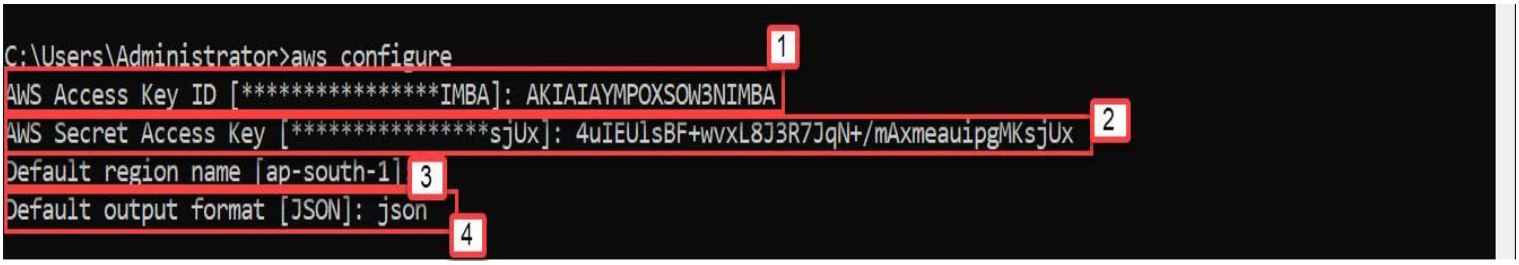
1. Select and note down location of Root key files.
2. Note down name of Root Key Files.
3. Note down format of Root Key files.
4. Click Save.



Now You have root access key and secret key open CSV file. Copy both key step by step and paste it into aws CLI.

1. Access Key you will get from rootkey.csv file we downloaded earlier
2. Secret Key you will get from rootkey.csv we downloaded earlier.
3. If you want to set region you can write here but make sure that region code should be 100% right. Or you can press enter for default region.
4. Output format make sure that output format file name must be in lowercase. Sometime default selection is in upper case which creates problem so if default selection is in upper case write down in lowercase and press enter.



AWS CLI

Now we will create EC2 Windows Instance Using command line.

But before we create instance we required to create

1. Security group.
2. Add Rule to Security Group.
3. Create Key Pair.

To create Security Group type following command on aws cli

1. Give following command

aws ec2 create-security-group --group-name awsclitraining --description "test sg from cli"

For error free practice copy command from here and paste it at aws cli

You can change security group name and description as per you convince.

Do not forget to notedown Security Group ID.

```
C:\Users\Administrator>aws configure
AWS Access Key ID [****************IMBA]: AKIAJ3AJAWULIRE3UVYQ
AWS Secret Access Key [****************sjUx]: 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
Default region name [ap-south-1]:
Default output format [json]:

C:\Users\Administrator>aws ec2 create-security-group --group-name awsclitraining --description "test sg from cli"
{
    "GroupId": "sg-028026cc8df2faaeb"
}

C:\Users\Administrator>
```

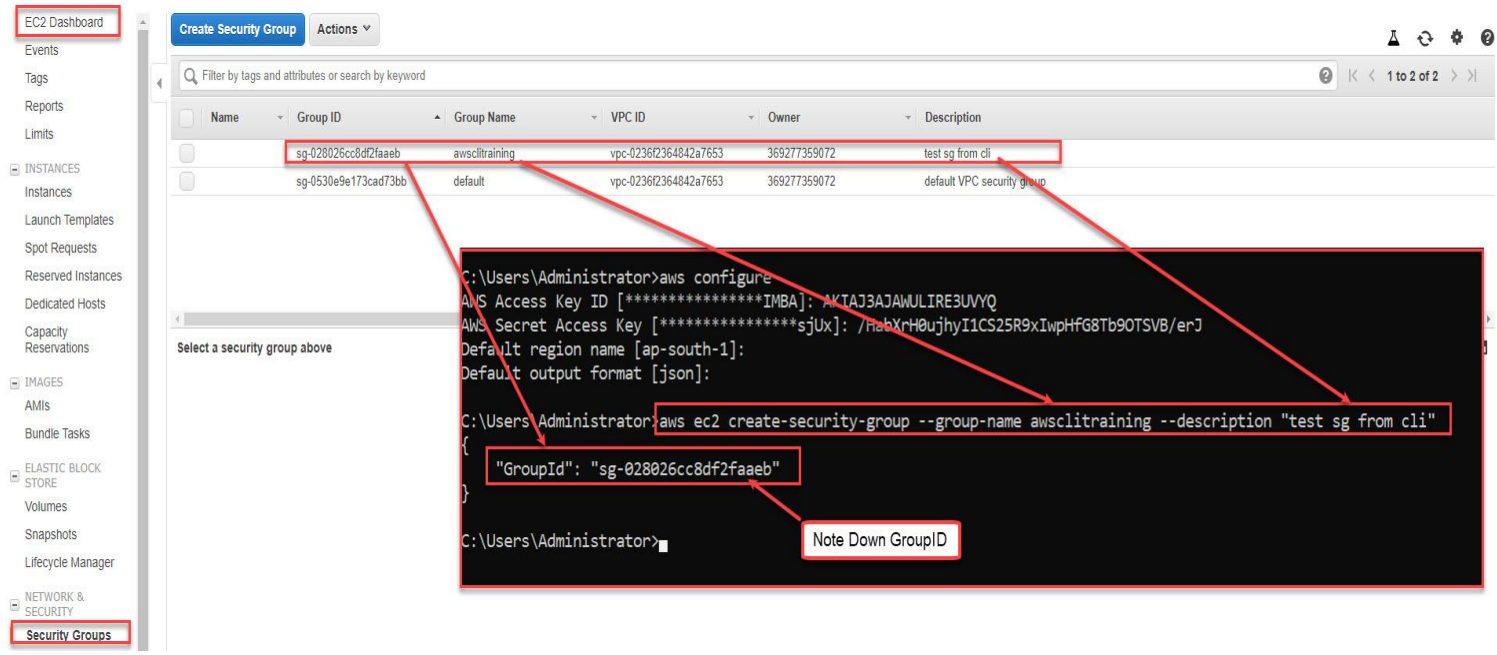
Security Group Name You can Give Any

Description you can give any

Note Down GroupID

Now Security Group has been created we will go to GUI mode and to check security group is available or not.

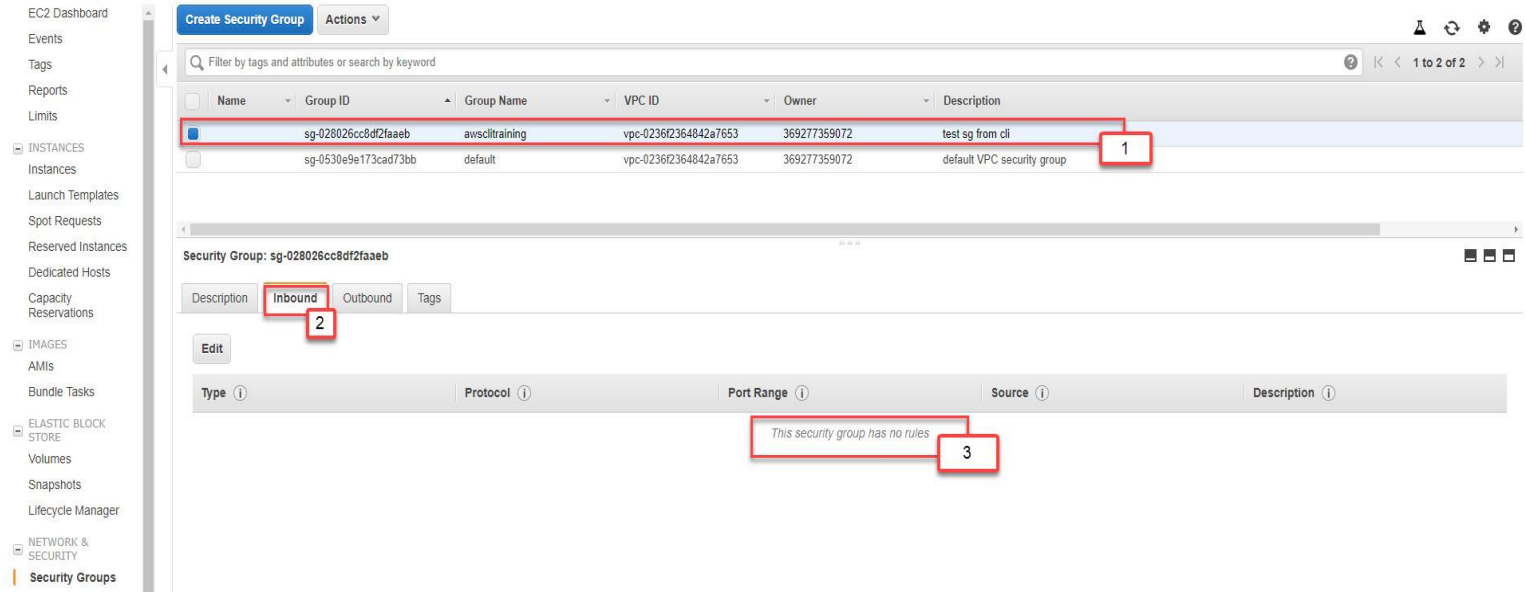
1. From EC2 Dashboard Click on Security Gorup.
2. Here is our security group detail we have group name awsclitraining and groupid is also matching.



AWS CLI

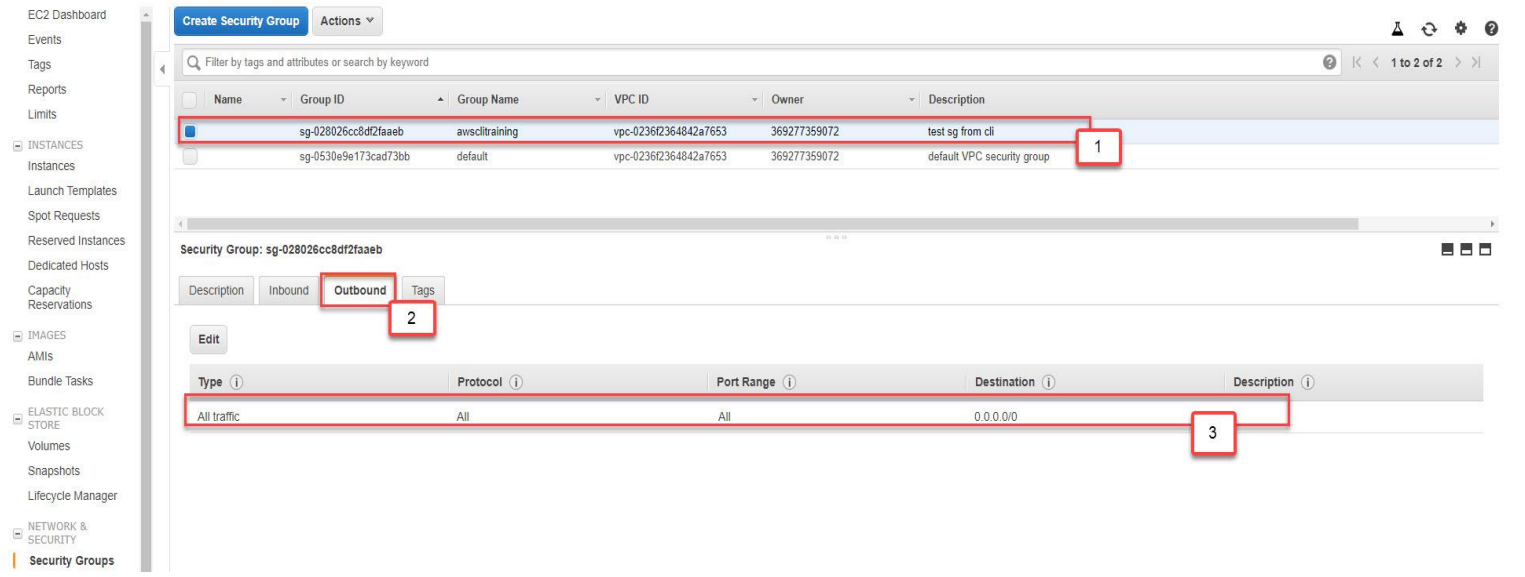
Now we will check is there are any inbound rule are there or not in our newly created group.

1. Select Group
2. Select Inbound
3. Here we don't have any security rule.



Now we will check is there are any outbound rule are there or not in our newly created group.

1. Select Group
2. Select outbound
3. Here we have rule allow all outbound traffic to any destination.



We have outbound rule but we don't have any inbound rule so we have to allow RDP (TCP Port 3389) so we can manage our EC2.

In the next step we will add inbound rule to security group.

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Give following command

aws ec2 authorize-security-group-ingress --group-name awsclitraining --protocol tcp --port 3389 --cidr 0.0.0.0/0

For error free practice copy above command from here and paste it at aws cli

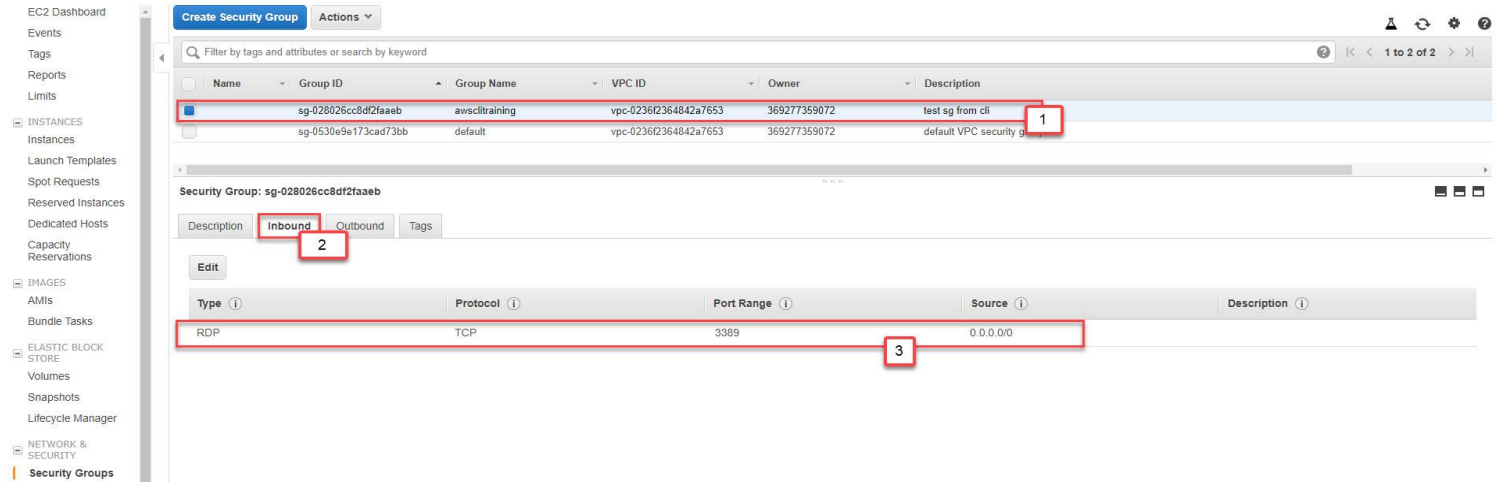
```
C:\Users\Administrator>aws configure
AWS Access Key ID [****************IMBA]: AKIAJ3AJAWULIRE3UVYQ
AWS Secret Access Key [****************sjUx]: 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
Default region name [ap-south-1]:
Default output format [json]:

C:\Users\Administrator>aws ec2 create-security-group --group-name awsclitraining --description "test sg from cli"
{
    "GroupId": "sg-028026cc8df2faaeb"
}

C:\Users\Administrator>aws ec2 authorize-security-group-ingress --group-name awsclitraining --protocol tcp --port 3389 --cidr 0.0.0.0/0

C:\Users\Administrator>
```

Security Group Name | Security Group Name | source

Now we will verify that rule is added or not.

1. Select Group
2. Select outbound
3. Here we have rule allow RDP inbound traffic to any source.

Note: If you have old windows open do not forget to refresh the window



Give following command to create security key for our ec2 instance.

aws ec2 create-key-pair --key-name cliKeyPair --query "KeyMaterial" --output text > clikeyPair.pem

For error free practice copy above command from here and paste it at aws cli

```
C:\Users\Administrator>
C:\Users\Administrator>aws ec2 create-key-pair --key-name cliKeyPair --query "KeyMaterial" --output text > clikeyPair.pem

C:\Users\Administrator>
```

Key Pairs Name | This file will be store in our PC

AWS CLI

At ths command prompt give dir command to verify clikeyPair.pem is there is our directory.

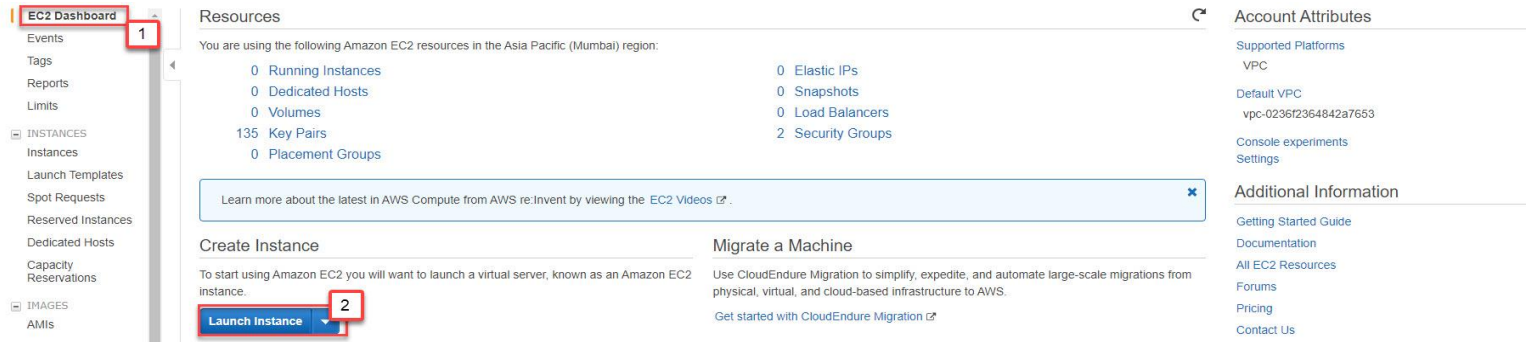
Note down location of pem file.

```
C:\Users\Administrator>dir
 Volume in drive C has no label.
 Volume Serial Number is A8E0-D863

 Directory of C:\Users\Administrator

11-10-2019  13:59    <DIR>          .
11-10-2019  13:59    <DIR>          ..
12-07-2019  19:38    <DIR>          .aws
04-10-2019  09:58                   [redacted]
05-10-2019  09:21    <DIR>          3D Objects
16-09-2019  20:09    <DIR>          [redacted]
11-10-2019  13:59             1,694 clikeyPair.pem
```

All set now we can create EC2 using above security group and key pairs. But before we create security group we have to note down AMI image ID and subnet ID so let's find ou AMI ID of Windows Sever 2016 base image.

Click On EC2 Dashboard

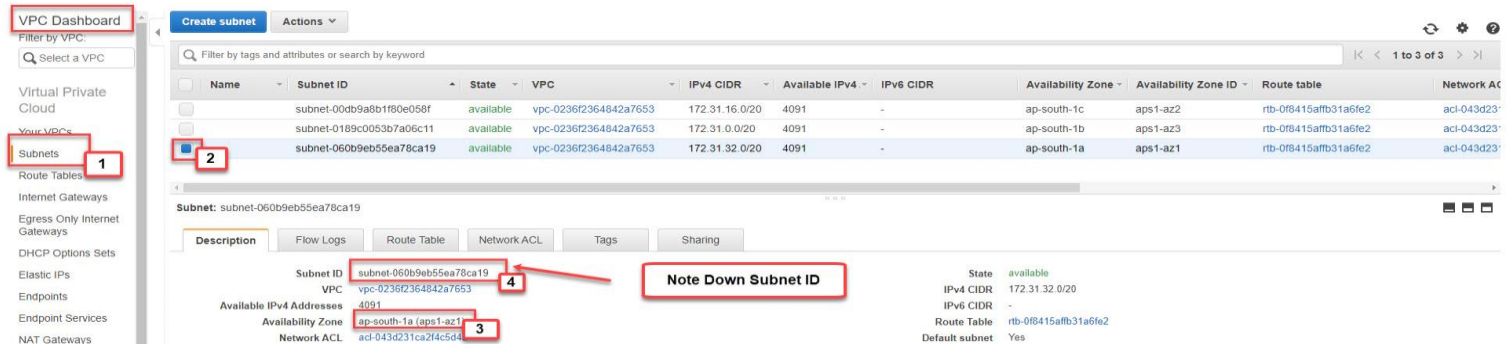
Click Launch Instance



Select any AMI image for Your ec2 and Note down Image id copy and paste into wordpad

Now we will copy subnet id in which we are going to create our EC2 Instance.

1. From VPC Dashboard Click Subnets
2. Select Subnet
3. Make Sure subnet AZ
4. Copy and paste subnet id into wordpad file.



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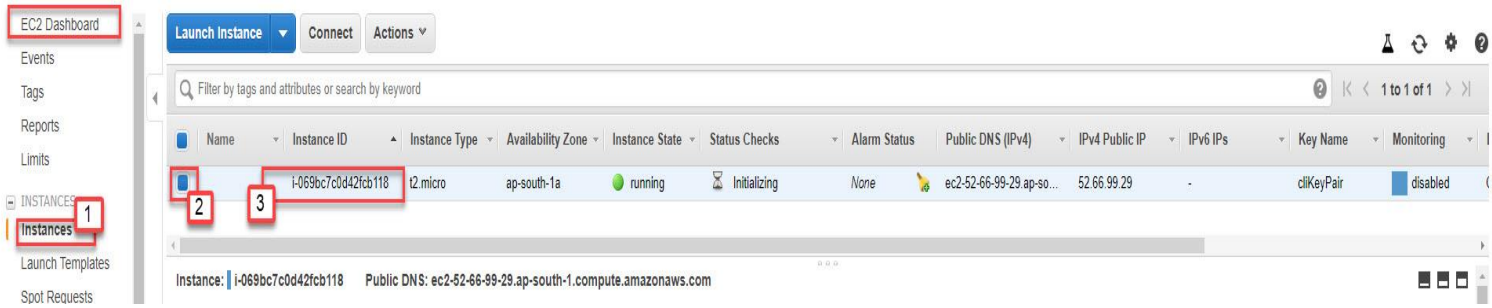
Give following command to create EC2 instance from CLI

aws ec2 run-instances --image-id ami-01255402b9fbe1a8e --count 1 --instance-type t2.micro --key-name cliKeyPair --security-group-ids sg-028026cc8df2faaeb --subnet-id subnet-060b9eb55ea78ca19

For error free practice copy above command from here and paste it at aws cli do not forget to edit ami id, security group id and subnet id as per your lab.

Verify New EC2 has been Created Go to EC2 has been Created.

1. From EC2 Dashboard Click Instances
2. Here is our newly Created Instance Select it
3. Note Down Instance ID



Wait for some time till instance be ready you can login to verify we are able to login using same private key we created earlier.

To Stop Running EC2 instance we can use following command.

aws ec2 stop-instances --instance-ids i-069bc7c0d42fcb118

For error free practice copy above command from here and paste it at aws cli do not forget to edit ami id, security group id and subnet id as per your lab.

Go to GUI and Check Status of Instance it must be in Stop State.

AWS CLI

To Start Running EC2 instance we can use following command.

aws ec2 start-instances --instance-ids i-069bc7c0d42fcb118

For error free practice copy above command from here and paste it at aws cli do not forget to edit ami id, security group id and subnet id as per your lab.

```
C:\Users\Administrator>aws ec2 start-instances --instance-ids i-069bc7c0d42fcb118cb118
```

EC2 Instance ID Noted in Previous Step

Go to GUI and Check Status of Instance it must be in Start State.

To Terminate EC2 instance we can use following command.

aws ec2 terminate-instances --instance-ids i-069bc7c0d42fcb118

For error free practice copy above command from here and paste it at aws cli do not forget to edit ami id, security group id and subnet id as per your lab.

```
C:\Users\Administrator>aws ec2 terminate-instances --instance-ids i-069bc7c0d42fcb118
```

EC2 Instance ID Noted in Previous Step

Go to GUI and Check Status of Instance it must be Terminated.