Introduction to Amazon Elastic Compute Cloud (EC2)

Lab Details:

1. This lab walks you through the steps to launch and configure a virtual machine in the Amazon cloud. You will practice using Amazon Machine Images to launch Amazon EC2 Instances and use key pairs for SSH authentication to log into to your instance.

2. Duration: 00:30:00 Hrs

3. AWS Region: US East (N. Virginia)

Tasks:

1. Login to AWS Management Console.
2. Create an Amazon Linux Instance from an AMI
3. Find your instance in the AWS Management Console.
4. Log into your instance.
5. Install a Webserver on server
6. Creat and run a sample test.html file.

Steps:

1. Launch your lab environment by clicking on **Start Lab** button.
2. Once your lab environment is created successfully your **Console Login** button will be active, Now click on **Console Login** button, this will open your **AWS Console** Account for this lab in a new tab.
3. Navigate to EC2 by clicking on the "services" menu in the top,then click on "EC2" (in the "Compute" section).
4. Click on **Launch Instance**
5. Choose an Amazon Machine Image (AMI)- **Amazon Linux 2 AMI (HVM)**
6. Choose an Instance Type - select t2.micro
7. Configure Instance Details- No need to change anything in this step, just go to next step Add Storage
8. Add Storage- No need to change anything in this step, just go to next step Add Tags
9. Add Tags- No need to change anything in this step,just go to next step Configure Security Group.
10. Configure Security Group-
    i. To add **SSH**,
       Choose Type: SSH
       Source: Custom(Allow specific IP address) or Any where(From ALL IP addresses accessible).
    ii. For **HTTP**, Click on "Add Rule",
       Choose Type: HTTP
       Source: Custom(Allow specific IP address) or Any where(From ALL IP addresses accessible).
    iii. For **HTTPS**, Click on "Add Rule",
       Choose Type: HTTPS
       Source: Custom(Allow specific IP address) or Any where(From ALL IP

addresses accessible).

    iv. After that click on Review and Launch

11. Review and Launch- Review all your select settings and click on launch.
12. Key Pair- This step is most important, Create new key Pair and click on Download Key Pair after that click on Launch Instances.
13. Launch Status- Your instance are now launching, Click on the instance ID and wait for complete initialization of instance till status change to running.
14. Login to your instance using putty.
15. Convert your key pair .pem to ppk - Download putty and puttygen from this link -: **https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html**
16. Open puttygen to convert .pem into .ppk. Click Load.
17. Select .pem file that you want to covert into .ppk.
18. Click Generate to get the .ppk file.
19. Click yes to the warning and Save the file with the same name as .pem file.
20. Now to go the EC2 instance page and get the public IP of the machine.
21. Open putty and put public IP address in Host Name field.
22. Click SSH after that select Auth and click on Browse select the private key (.ppk) that you have converted form .pem file. After that click on Open.
23. Select yes to connect to the machine.
24. Enter user name ec2-user and hit Enter.
25. You will see the console after successful login.
26. Change the session with root user using following command: **sudo -s**
27. Now run the updates using following command: **yum -y update**
28. After the updates complete, install the Apache web server : **yum install httpd**
29. On prompt Press **"Y"** to confirm.
30. Start the web server with the command shown following:
    systemctl start httpd
31. Now enable httpd: **systemctl enable httpd**
32. Check the webserver status using following command:
    systemctl status httpd
33. You can see Active status is running.
34. You can test that your web server is properly installed and started by entering the public IP address of your EC2 instance in the address bar of a web browser. If your web server is running, then you see the Apache test page. If you don't see the Apache test page, then verify that your inbound rules for the VPC security group that you created.
35. Now go to the webserver root directory by using following command : **cd /var/www/html/**
36. Now create a sample test.html file using following command with nano editor : nano test.html
37. Enter some HTML content in the file and save the file with Ctrl+X (Y).
38. Now restart the webserver by using following commond: **systemctl start httpd**
39. Now enter the file name after the public IP in the browser , and you can see you html content.
40. You have successfully completed the lab.