AWS Technical Essentials: Lab Guide

# Pre-requisite:

AWS Account

# Amazon EC2

# Exercise 1: AWS Dashboard

1. Login into AWS Account
2. Find out where these are available in the screen
   1. Region you are working in
   2. Your billing details

# Exercise 2: Setting up Billing Alarm

1. Decide on the dollar amount beyond which you want the alarm to be triggered

# Exercise 3: Staring an EC2 Instance

Inputs:

1. If using Linux, choose Amazon Linux AMI
2. If using Windows, choose Windows 2012 Server Base
3. Choose t2.micro as the Instance Type
4. Storage size should be default
5. In the tags, give the instance a name of your choice
6. Security Group Name: SSH if Linux, RDP is Windows
7. Port to be opened: 22 for Linux, 3389 for Windows
8. Port to be opened for everyone
9. Create New key (note down this name)
10. Launch instance
11. After instance launch, note down the following:
    1. Availability Zone of the instance
    2. Public IP of the instance
    3. Private IP of the instance

# Exercise 4: Login into EC2 Instance

1. In case of Windows, login name is **Administrator**
2. In case of Linux, login name is **ec2-user**
3. In case of Windows, get the password and note it down
4. In case of Linux, convert pem file to ppk file using puTTygen

# Exercise 5: Launch another EC2 instance

1. Use the same parameters given in Exercise 3 and launch an EC2 instance in a different Availability Zone
2. Note down the Public IP of the instance
3. Login into the instance

# Exercise 6: Restarting an EC2 Instance

1. Note down the Public and Private IP address of the instance
2. Stop the instance
3. Start the instance
4. Check the public and private IP address of the instance. Are they still the same?

# Exercise 7: Answer these questions

1. Is it possible to change the instance type of a running instance?
2. Is it possible to attach a different security group to a running instance?
3. What is the difference between terminate and stop?
4. Can I change the key which is associated with the instance?

# Elastic Block Store

***Before starting the exercise, note down the Availability zone of one of the servers that was started in the earlier exercises.***

# Exercise 8: Create EBS Volume

1. How do you get to Volume screen in the EC2 dashboard?
2. How many volumes do you see in the volume screen? What are these volumes?
3. What does the green symbol indicate?
4. Create a new volume. Use the following parameters
5. Volume Size 1 GB
6. Volume Type General Purpose SSD
7. ***Availability Zone: Same as the availability zone of the instance you noted down (Important)***
8. Leave the snapshot field empty
9. Create the volume
10. Why is there a Blue color symbol against the volume?

# Exercise 9: Attach an EBS Volume

1. Select the newly created volume
2. In Actions, choose Attach Volume
3. Click instance field to choose the instance
4. How do you know the volume has been attached?

# Exercise 10: Verifying Volume has been attached

1. In Linux, check for /dev/sdf (ls -l /dev/sdf) or /dev/xvdf
2. Then format the disk using the command: mkfs.ext4 /dev/sdf
3. Mount the disk using the mount command: mount /dev/sdf /mnt
4. Check if the disk is mounted: df -h (you should see the mounted disk)
5. In case of Windows, open the Device Manager
6. In the Storage section, click on Disks
7. You must see a new unformatted disk
8. Right click on it and bring it online
9. Right click again and select ‘New Volume’
10. After it formats, you must see the new disk as D: