ASSIGNMENT - 1

Title:- Case study on Amazon EC2 and learn about Amazon EC2 web services.

Problem Statement:-

Using AWS Management Console, launch EC2 Instance to access the operating system remotely.

Objectives: -

- To learn Amazon EC2 web services.
- To study on Amazon EC2 and learn about Amazon EC2 web services.

Outcome: -

- To launch EC2 Instance using of tools and techniques available through AWS Management Console.

Theory: -

An EC2 instance is nothing but a virtual server in Amazon Web services terminology. It stands for Elastic Compute Cloud. It is a web service where an AWS subscriber can request and provision a compute server in AWS cloud.
An on-demand EC2 instance is an offering from AWS where the subscriber/user can rent the virtual server per hour and use it to deploy his/her own applications.
The instance will be charged per hour with different rates based on the type of the instance chosen. AWS provides multiple instance types for the respective business needs of the user.
Thus, you can rent an instance based on your own CPU and memory requirements and use it as long as you want. You can terminate the instance when it's no more used and save on costs. This is the most striking advantage of an on-demand instance- you can drastically save on your CAPEX.
Let us see in detail how to launch an on-demand EC2 instance in AWS Cloud. Login and access to AWS services
Step 1)

- Login to your AWS account and go to the AWS Services tab at the top left corner.
- Here, you will see all of the AWS Services categorized as per their area viz. Compute, Storage, Database, etc. For creating an EC2 instance, we have to choose EC2 as in the next step.
- Open all the services and click on EC2 under Compute services. This will launch the dashboard of EC2.
- Here is the EC2 dashboard. Here you will get all the information in gist about the AWS EC2 resources running.

Step 2)

- On the top right corner of the EC2 dashboard, choose the AWS Region in which you want to provision the EC2 server.
- Here we are selecting N. Virginia. AWS provides 16 Regions all over the globe.

Step 3) In this step

- Once your desired Region is selected, come back to the EC2 Dashboard.
- Click on 'Launch Instance' button in the section of Create Instance (as shown below).

Instance creation wizard page will open as soon as you click 'Launch Instance'.

Choose AMI

Step 1)

1. You will be asked to choose an AMI of your choice. (An AMI is an Amazon Machine Image. It is a template basically of an Operating System platform which you can use as a base to create your instance). Once you launch an EC2 instance from your preferred AMI, the instance will automatically be booted with the desired OS. (We will see more about AMIs in the coming part of the tutorial).

2. Here we are choosing the default Amazon Linux (64 bit) AMI.

Choose EC2 Instance Types

Step 1) In the next step, you have to choose the type of instance you require based on your business needs.

a) We will choose t2.micro instance type, which is a 1vCPU and 1GB memory server offered by AWS.

b) Click on "Configure Instance Details" for further configurations.

In the next step of the wizard, enter details like no. of instances you want to launch at a time.

Here we are launching one instance.

Conclusion:

Thus, we saw in detail how to create an on-demand EC2 instance in this tutorial. Because it is an on-demand server, you can keep it running when in use and 'Stop' it when it's unused to save on your costs.