Ec2

* What is Amazon EC2?

Amazon Elastic Compute Cloud (Amazon EC2) provides ascendable computing capability within the Amazon internet Services (AWS) cloud. Working on Amazon EC2 eliminates your potential to invest in hardware up front, thus you’ll be able to develop and deploy applications quicker

## Features of Amazon Elastic Compute Cloud

**#** Storage volumes for temporary information are deleted once you stop or terminate your instance; this is known as instance store volumes.

**#**Virtual computing environments, which is also known as instances.

# It provides pre-configured templates for your instances, which is known as Amazon Machine pictures (AMIs), this feature is required for the server.

# AWS EC2 provides you with multiple storage locations for your resources such as instances and EBS volumes which are called regions and availability zones.

# For creating and assigning the resource’s metadata, known as tags are provided.

# The Elastic IP address is provided for dynamic cloud computing which is a static IPv4.

# Various configurations of hardware, memory, storage, and networking capability for your instances called for instance varieties.

#Virtual networks which you occasionally connect to your network are known as Virtual Private Network.

# A static IPv4 is provided for dynamic cloud computing. This is known as Elastic IP address.

#### **Instances and AMIs**

Amazon Machine Image (AMI) is a template that contains a software configuration such as an operating system, servers, and applications.

#### **Region and Availability Zones**

AWS EC2 host in multiple locations worldwide. These locations are composed of different regions and availability zones.

#### Amazon EC2 Key Pairs

Amazon EC2 uses public– key to encrypt and decrypt login information.

#### Security Groups

AWS security groups associate with EC2 instances and provide security at the protocol and port access level.

* **Elastic ip**

An Elastic IP address is a static IPv4 address designed for dynamic cloud computing. An Elastic IP address is a public IPv4 address, which is reachable from the internet. If your instance does not have a public IPv4 address, you can associate an Elastic IP address with your instance to enable communication with the internet.

# **Amazon Elastic Block Store**

Amazon Elastic Block Store (Amazon EBS) provides block level storage volumes for use with EC2 instances. EBS volumes behave like raw, unformatted block devices. You can mount these volumes as devices on your instances. You can create a file system on top of these volumes, or use them in any way you would use a block device (such as a hard drive).

* **Auto scaling**

AWS Autoscaling helps us to setup application scaling for multiple resources across multiple services in a short interval. Autoscaling in AWS provides the lucid interface that helps to build scaling plans which are used for resources such as**Amazon EC2**, Amazon Dynamo DB, Amazon Aura, and many more. If a person is using AWS Autoscaling to dynamically scale the Amazon EC2 instances, can now combine it with Amazon Autoscaling to scale additional resources for other AWS services.

## Pricing for Amazon EC2

## On-Demand Instances

## Pay for the instances that you use by the second, with a minimum of 60 seconds, with no long-term commitments or upfront payments.

## Savings Plans

## You can reduce your Amazon EC2 costs by making a commitment to a consistent amount of usage, in USD per hour, for a term of 1 or 3 years.

## Reserved Instances

## You can reduce your Amazon EC2 costs by making a commitment to a specific instance configuration, including instance type and Region, for a term of 1 or 3 years.

## Spot Instances

## Request unused EC2 instances, which can reduce your Amazon EC2 costs significantly.