1. What is AWS EC2?

*Amazon Web Services EC2 (Elastic Cloud Compute) is a web service that offers resizable compute capacity in the Amazon Web Services cloud. It provides Infrastructure as a Service (IaaS) to its consumers (IaaS). It gives you full control over your computing resources, which you can scale as needed.*

1. Is Amazon EC2 IaaS or PAAS?

*AWS Elastic Compute Service or EC2 is IaaS (Infrastructure as a Service). This is due to the fact that Amazon manages networking, storage, server, and virtualization, while the user is responsible for managing the Operating System, middleware, runtime, data and application.*

1. What is an instance in Amazon EC2?

*An instance is a virtual server that runs applications on Amazon's EC2. An instance is a small part of a larger computer with its own hard drive, network connection, operating system, and so on. On a single physical machine, you may have several small computers, which are referred to as Instances.*

1. How instances are categorized in AWS EC2?

Instances are classified into three categorize.

On-Demand Instances, Reserved Instances (RI), Spot instances

1. What is On-Demand Instances in AWS EC2?

*In case of On-Demand, there are no long-term contracts. They bill you per hour for the compute capacity you use. Companies may scale up or down the capacity of their application based on demand, and they only pay for the hourly rate of the instance they select.*

1. What is Reserved Instances (RI) in AWS EC2?

*There is the ability to adjust operating system types and tenancy agreements in Reserved Instances. For EC2 instances, RI offers an optional capacity reservation. When the attributes of an EC2 instance's usage match those of an active RI, AWS Billing applies discounted RI rates. If an Availability Zone (AZ) is defined, EC2 reserves capacity that matches the attributes of RI.*

1. What is Spot instances in AWS EC2?

*With the support of Spot Instances, one can increase the application's compute capacity and throughput for the same budget, as well as allow new types of cloud computing applications by lowering the cost of the same. These instances allow you to bid on spare AWS EC2 computing capacity and, as a result, are often cheaper than On-Demand pricing.*

1. How AWS EC2 Works?

*EC2 handles scaling according to changing needs using the AWS Management Console, AWS Command Line Interface (CLI), or AWS Software Development Kits (SDKs), and makes it easy to deploy virtual servers and maintain storage.* AMI (Amazon Machine Image) has to be created during the setup process, which involves an operating system, apps, and configurations. After launching an instance, the user can choose an AMI template or create one in the console.

1. **What Is Security Group In Amazon Ec2?**

Security groups act as a firewall for associated instances, controlling both inbound and outbound traffic at the instance level.

1. **What Is Amazon Machine Image (ami)?**

An Amazon Machine Image (AMI) is a template that contains a software configuration (for example, an operating system, an application server, and applications). From an AMI, we launch an instance, which is a copy of the AMI running as a virtual server in the cloud. We can even launch multiple instances of an AMI.

1. **What Is Key Pair?**

AWS uses public-key cryptography to secure the login information for your instance. A Linux instance has no password; you use a key pair to log in to your instance securely. You specify the name of the key pair when you launch your instance, then provide the private key when you log in using SSH.

1. **What Types Of Issues Do You Face While Connecting To An Ec2 Instance?**

Connection time out

Permission denied due to host key not found

Unprotected private key file

Permission denied due to user key not recognized by server

No supported authentication method available

Server refused the key AWS Video Training

1. What is private IP in AWS?

Every EC2 instance that is launched is assigned a primary private IP address from the address range of the subnet. The instances are not reachable over the internet with their private IP address. However, Private IP addresses are useful for communication between instances within the VPC. They remain associated to the instance during restarts. Private IP address allocated to an instance is released only when the instance is terminated.

1. What is public IP in AWS?

You can choose to assign a Public IP to an EC2 Instance to allow it to be accessible from the Internet. Public IP addresses are not associated with an AWS account. They are assigned from Amazon’s pool of IP addresses. Public IP addresses are released during Instance termination as well as Instance stops. So every-time you stop the instance and start it again, the public IP address of the Instance changes.

1. What is Elastic IP in AWS?

An Elastic IP address is a static public IP address that you can request to be allocated to your AWS account. They are region specific and the default limit of Elastic IP addresses allocated to an AWS account is 5. However, you can submit a request to increase the limit. You can associate Elastic IP address with any EC2 Instance within the same region. You can also disassociate the Elastic IP address from an EC2 Instance and associate it with another instance.