**1) What is Amazon Web Services?**

**Ans:** AWS stands for [Amazon Web Services](https://mindmajix.com/what-is-aws), which is a cloud computing platform. It is designed in such a way that it provides cloud services in the form of small building blocks, and these blocks help create and deploy various types of applications in the cloud. These sequences of small blocks are integrated to deliver the services in a highly scalable manner.

4) What is AMI?

**Ans:** It stands for [Amazon Machine Image](https://mindmajix.com/aws/creating-a-custom-ami-in-aws). The AMI contains essential information required to launch an instance, and it is a copy of AMI running in the cloud. You can download as many examples as possible from multiple AIMs.

### 5) What is the relationship between an instance and AMI?

**Ans:** Using a single AMI, you can download as many instances as you can. An instance type is used to define the hardware of the host computer for your situation. Each instance is unique and provides the facilities in computational and storage capabilities. Once you install an instance, it looks similar to a traditional host with which we can interact in the same way we do with a computer.

### 22) What are the types of load balancers in EC2?

**Ans:** There are three types of load balancers in EC2. They are as follows:

**Application Load Balancer:** Application load balancer designed to make routing decisions at the application layer. ALC supports dynamic host port mapping and path-based routings.

**Network Load Balancer:** Network load balancer is designed to make routing decisions at the transport layer. It handles millions of requests per second. Using the flow hash routing algorithm, NCL selects the target from the target groups after receiving a connection from the load balancer.

**Classic Load Balancer:** Classic load balancer is designed to make routing decisions either at the application layer or transport layer. It requires a fixed relationship between container instance port and load balancer port.

**24) Mention the security best practices for Amazon EC2.**

**Ans:** Security best practices for Amazon EC2 are as below:

* Security and network
* Storage
* Resource Management
* Recovery and Backup

**25) While connecting to your instance, what are the possible connection issues one might face?**

**Ans:** The following are the connection issues faced by the user:

* User key not recognized by the server
* Permission denied
* Connection timeout
* Cannot connect using user’s browser
* Server unexpectedly closed network connection
* Unprotected private key
* Cannot ping the instance
* Server refused host key
* The private key must begin with **“*BEGIN RSA PRIVATE KEY*”** and end with **“ *END RSA PRIVATE KEY*.”**

**26) What are key-pairs in AWS?**

**Ans:** Amazon EC2 uses both public and private keys to encrypt and decrypt the login information. The sender uses a public key to encrypt the data and the receiver uses a private key to decrypt the data. Private and public keys are known as key pairs. The public key enables you to access the instance securely and a private key is used instead of a password.

### 31) What is Amazon EC2 Root Device Volume?

**Ans:**  When the developer launches the instance, the root device volume is used to boot the instance that contains the image. When the developer introduces the Amazon EC2, all AMIs are propped up by an Amazon EC2 instance store.

### 32) What is Server Load Balancing?

**Ans:** A Server load balancer (SLB) provides content delivery and networking services using load balancing algorithms. SLB distributes the network traffic equally across a group of servers to ensure high-performance application delivery.

**36) What are the layers available in cloud computing?**

**Ans:**  Below listed are the various layers of [cloud computing](https://mindmajix.com/what-is-cloud-computing)

**SaaS:** Software as a Service

**PaaS:** Platform as a Service

**IaaS:** Infrastructure as a Service

**37) Explain the layers of Cloud architecture?**

**Ans:** We have five different types of layers available, which are:

* SC- Storage controller
* CC- cluster controller
* NC- Node controller
* Walrus
* CLC- cloud controller

**38) What are the reserved instances?**

**Ans:** It is nothing but a reservation of resources for one or three years and utilized whenever you need it. The reservation comes on a subscription basis available for a term of 1 year and three years. The hourly rate goes down as the usage increases. Purchasing reservations isn’t just associated with the reservation of resources, but also, it comes with the capacity that is required for a particular zone.

### 41) Explain the cloud watch metrics that are meant for EC2 instances?

**Ans:** The available metrics for EC2 instances are Disk reads, CPU utilization, network packetsOut, CPUCreditUsage, Disk writes, network packetsIn, networkOut, and CPUCreditBalance.

### 62) What is the difference between block storage and file storage?

**Ans:**

**Block Storage:** it functions at a lower level and manages the data asset of blocks.

**File Storage:** The file storage operates at a higher level or operational level and manages data in the form of files and folders.

### 61) What is the security group?

**Ans:** In AWS the in and out traffic to instances is controlled with virtual firewalls which are known as Security groups. Security groups allow you to control traffic based on various aspects such as protocol, port and source destination.

### 1. Does Amazon support region base services on all services?

**Ans:** No, it is not providing region-specific usage on all its services. But most of the services are region-based.

### 4. Which AWS region is the cheapest?

**Ans:** The US standard is the cheapest region; it is also the most established AWS region.

**1. Define and explain the three basic types of cloud services and the AWS products that are built based on them?**

The three basic types of cloud services are:

* Computing
* Storage
* Networking

Here are some of the AWS products that are built based on the three cloud service types:

**Computing -** These include EC2, Elastic Beanstalk, Lambda, Auto-Scaling, and Lightsat.

**Storage -** These include S3, Glacier, Elastic Block Storage, Elastic File System.

**Networking -** These include VPC, Amazon CloudFront, Route53