**AWS Assignment 2**

1. Describe the significance of AWS.

**Answer:** Amazon Web Services is an online platform that provides scalable and cost-effective cloud computing solutions. It provides multiple on-demand operations such as computing power, content delivery, and database storage to help your business grow and grow. Amazon Web Services (AWS) is the most widely used cloud platform in the world. AWS is a collection of hosting services aimed at making traditional hosting solutions easier to use. AWS is used by Dropbox and Reddit, among other services. Here`s why you choose AWS for your business and the importance of AWS in the cloud industry. Amazon offers you on-the-go pricing. You pay only for what you use. This makes a lot of sense for large infrastructures as traffic tends to increase. One of the features of AWS is storage. It's cheap, versatile, and easy to use. AWS storage can be used individually or in combination to suit your needs. With so many companies relying on AWS, Amazon ensures that the data they provide is safe. Customers can scale and evolve using AWS features. Customers pay only for the services they actually use. In addition, there is no initial cost. AWS Marketplace is an online store where you can search for and buy the right software for your business. With the one-click implementation of the marketplace, you can get the apps you need and pay only for what you use. Whether you're new to the cloud or migrating from another cloud service platform, AWS has everything you need to improve your IT infrastructure.

1. Explain what EC2 is?

**Answer:** Amazon Elastic Compute Cloud (Amazon EC2) provides scalable computing power in the Amazon Web Services (AWS) cloud. With Amazon EC2, you don't have to invest in hardware in advance, and you can develop and deploy your applications faster. You can use Amazon EC2 to launch as many virtual servers as you need, configure security and networking, and manage storage. With Amazon EC2, you can scale up or down to respond to changing demand and spikes in popularity, so you expect less traffic.

1. Explain the working of S3 and list various types of instances.

**Answer:** Amazon S3 is an object storage service that provides industry-leading scalability, data availability, security, and performance. Customers of all sizes and industries can use Amazon S3 to store and protect data for a variety of use cases, including: Examples: data lakes, websites, mobile applications, backup and recovery, archiving, enterprise applications, IoT devices, big data analysis. Amazon S3 provides management capabilities that enable you to streamline, organize, and configure access to your data to meet your specific business, organization, and compliance needs.

Various Types of Instances:

* General Purpose
* Compute-Optimized
* Memory-Optimized
* Storage-Optimized
* Accelerated Computing

1. Explain the importance of IAM in AWS.

**Answer:** AWS Identity and Access Management (IAM) provides AWS with fine-grained access control. IAM allows you to determine who can access which services and resources under what conditions. Use IAM policies to manage user and system permissions and ensure minimal privileges. IAM allows you to manage AWS permissions for employee users and workloads. For employee users, we recommend that you use AWS Single Sign-On (AWS SSO) to manage access to your AWS accounts and the permissions within those accounts. AWS SSO makes it easy to deploy and manage IAM roles and policies across your AWS organization. Use IAM roles and policies to authorize your workload, and grant only the access that your workload requires.