**AWS Assignment 3**

1. Describe the significance of AWS.

Ans: AWS enables you to select the operating system, programming language, web application platform, database, and other services you need. With AWS, you receive a virtual environment that lets you load the software and services your application requires.

We pay only for the compute power, storage, and other resources you use, with no long-term contracts or up-front commitments.

AWS utilizes an end-to-end approach to secure and harden our infrastructure, including physical, operational, and software measures.

Using AWS tools, Auto Scaling, and Elastic Load Balancing, your application can scale up or down based on demand. Backed by Amazon’s massive infrastructure, we have access to compute and storage resources when you need them.

1. Explain what EC2 is?

Ans: An Amazon EC2 instance is a virtual server in Amazon's Elastic Compute Cloud (EC2) for running applications on the Amazon Web Services (AWS) infrastructure.Users can select an AMI provided by AWS, the user community or through the AWS Marketplace

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

Ans: Amazon S3 offers a range of storage classes that we can choose from based on the data access, resiliency, and cost requirements of we workloads.

Amazon S3 has various features we can use to organize and manage our data in ways that support specific use cases, enable cost efficiencies, enforce security, and meet compliance requirements. Data is stored as objects within resources called “buckets”, and a single object can be up to 5 terabytes in size. S3 features include capabilities to append metadata tags to objects, move and store data across the S3 Storage Classes, configure and enforce data access controls, secure data against unauthorized users, run big data analytics, monitor data at the object and bucket levels, and view storage usage and activity trends across your organization. Objects can be accessed through S3 Access Points or directly through the bucket hostname.

Types of S3 Storage Classes

* S3 Standard.
* S3 Standard-IA.
* S3 Intelligent-Tiering.
* S3 One Zone-IA.
* S3 Glacier.
* S3 Glacier Deep Archive.
* S3 Outposts.

1. Explain the importance of IAM in AWS.

Ans: AWS Identity and Access Management (IAM) is a web service that helps us securely control access to AWS resources. We use IAM to control who is authenticated (signed in) and authorized (has permissions) to use resources.