CHAPTER AWS

NAME: SADAF SULTAN

TASK 01

- **S3 (Simple Storage Service):**
  S3 is a scalable object storage service that allows you to store and retrieve data, such as files, images, and videos in the cloud. It provides high availability, and security for your data. It can be accessed programmatically through APIs.

- **RDS (Relational Database Service):**
  RDS is a managed database service that simplifies the administration of relational databases. It supports popular database engines like MySQL, PostgreSQL, Oracle, and SQL Server, and handles tasks such as backups, software patching, and automatic scaling to ensure database availability.

- **AWS Glue:**
  AWS Glue is a fully managed extract, transform, and load (ETL) service that helps you prepare and transform your data for analysis. It provides capabilities for data cataloging, data cleansing, and data transformation, making it easier to build data pipelines and perform analytics on your data.

- **Amazon Redshift:**
  Redshift is a fully managed data warehousing service that is optimized for analyzing large datasets. It allows you to efficiently store and query structured data using SQL, and can handle complex analytical queries across petabytes of data.

- **IAM Role (Identity and Access Management):**

IAM Roles enable you to manage access to AWS services and resources securely. They define a set of permissions and policies that determine what actions users, applications, or services can perform within your AWS environment.

- **Crawler:**
  In the context of AWS Glue, a Crawler is a component that automatically scans and catalogs data from various sources such as Amazon S3, databases, and data warehouses. It creates and updates a metadata catalog, making it easier to discover and work with your data.

- **Amazon Athena:**
  Athena is an interactive query service that allows you to analyze data stored in Amazon S3 using standard SQL queries. It doesn't require any infrastructure setup or data loading, making it a convenient service for ad-hoc analysis and exploration of large datasets.

- **Amazon QuickSight:**
  QuickSight is a cloud-native business intelligence (BI) service that enables you to create interactive dashboards and perform visual data analysis. It integrates with various data sources, including AWS services like S3 and Athena, to provide real-time insights into your data.

- **AWS Lambda:**
  Lambda is a serverless compute service that allows you to run your code without provisioning or managing servers. It's ideal for event-driven applications and enables you to execute code in response to events or on a schedule.

- **Amazon EC2 (Elastic Compute Cloud):**

EC2 provides scalable virtual servers in the cloud, allowing you to quickly provision compute capacity as needed. It offers a wide range of instance types and configurations to suit different workload requirements.