Introduction to GCP

Google Cloud Platform (GCP) is a suite of cloud computing services offered by Google. It provides a wide range of tools and services to help organizations build, deploy, and scale applications and services in the cloud. Here are some core concepts and services you should familiarize yourself with:

Projects:

A project is the fundamental organizing unit in GCP. It serves as a container for resources like virtual machines, storage buckets, databases, and more. Projects help you manage and organize your resources within GCP.

IAM (Identity and Access Management):

IAM is the service that allows you to manage access control and permissions for resources in GCP. With IAM, you can control who has access to what resources and what actions they can perform.

Compute Engine:

Compute Engine is GCP's infrastructure-as-a-service (IaaS) offering. It provides virtual machines (VMs) on demand, allowing you to run your applications and workloads in a scalable and flexible manner.

Storage:

GCP offers various storage options, including Cloud Storage for object storage, Cloud SQL for managed relational databases, Cloud Spanner for globally distributed databases, and Cloud Firestore for NoSQL document databases.

BigQuery:

BigQuery is a fully managed, serverless data warehouse that enables you to run fast and interactive queries on large datasets. It is designed to handle massive amounts of data and provides advanced analytics capabilities.

Dataflow:

Dataflow is a fully managed service for executing and managing data pipelines. It allows you to process and transform large amounts of data in real-time or batch mode using Apache Beam, a unified programming model for batch and streaming data processing.

Pub/Sub:

Pub/Sub is a messaging service that enables asynchronous communication between independent applications. It provides durable and scalable messaging infrastructure for building event-driven architectures.