- **Amazon web services**

What is AWS?

- Amazon Web Services is a comprehensive, evolving cloud computing platform that provides scalable and cost-effective cloud computing solutions.
- AWS is a broadly adopted cloud platform that offers several on-demand operations like compute power, database storage, content delivery, etc., to help corporates scale and grow.
- **Their Top 5 Clients :**
  - Netflix: $19 M
  - Twitch: $15 M
  - Linkedin: $13 M
  - Facebook: $11 M

AWS Elastic Compute Cloud (EC2)

- Amazon Elastic Compute Cloud (Amazon EC2) provides scalable computing capacity in the Amazon Web Services (AWS) Cloud.
- Features :
  - Packages bits needed for your server.
  - Instance types.
  - Store volumes to persist temporary data.
  - Storage volumes for temporary data that's deleted when you stop, hibernate, or terminate your instance, known as instance store volumes

Amazon Simple Storage Service (S3)

- Amazon Simple Storage Service (Amazon S3) is an object storage service that offers industry-leading scalability, data availability, security, and performance.
- Can be used by any and all types of users / organizations.
- Lifecycle Management features

Amazon DynamoDB

- Amazon DynamoDB is a fully managed NoSQL database service that provides fast and predictable performance with seamless scalability.
- Comes with in-built encryption.
- Benefits:
    - Easy to administer
    - Highly scalable
    - Inexpensive
    - Secure

- Google

Compute

App Engine: App Engine enables you to build and host applications on the same systems that power Google applications. App Engine offers fast development and deployment; simple administration, with no need to worry about hardware, patches or backups; and effortless scalability.

Compute Engine: Compute Engine offers scalable and flexible virtual machine computing capabilities in the cloud, with options to utilize certain CPUs, GPUs, or Cloud TPUs. You can use Compute Engine to solve large-scale processing and analytic problems on Google's computing, storage, and networking infrastructure.

Google Cloud VMware Engine (GCVE): GCVE is a managed VMware-as-a-Service that is specifically designed for running VMware workloads on Google Cloud Platform. GCVE enables customers to run VMware virtual machines natively in a dedicated, private, software-defined data center.

Storage

Cloud Storage: Cloud Storage is a RESTful service for storing and accessing your data on Google's infrastructure. The service combines the performance and scalability of Google's cloud with advanced security and sharing capabilities.

Persistent Disk: Persistent Disk is a durable and high performance block storage service for Google Cloud Platform. Persistent Disk provides SSD and HDD storage that can be attached to instances running in either Compute Engine or Google Kubernetes Engine.

Cloud Filestore: Cloud Filestore is a scalable and highly available shared file service fully-managed by Google. Cloud Filestore provides persistent storage ideal for shared workloads. It is best suited for enterprise applications requiring persistent, durable, shared storage which is accessed by NFS or requires a POSIX compliant file system.

***Cloud Storage for Firebase**: Cloud Storage for Firebase adds customizable Google security (via Firebase Security Rules for Cloud Storage) to file uploads and downloads for your Firebase apps, as well as robust uploads and downloads regardless of network quality through the Firebase SDK. Cloud Storage for Firebase is backed by Cloud Storage, a service for storing and accessing your data on Google's infrastructure.

Databases

Cloud Bigtable: Cloud Bigtable is a fast, fully-managed, highly-scalable NoSQL database service. It is designed for the collection and retention of data from 1TB to hundreds of PB.

Datastore: Datastore is a fully-managed, schemaless, non-relational datastore. It provides a rich set of query capabilities, supports atomic transactions, and automatically scales up and down in response to load. It can scale to support an application with 1,000 users or 10 million users with no code changes.

Firestore: Firestore is a NoSQL document database for storing, syncing, and querying data for mobile and web apps. Its client libraries provide live synchronization and offline support, while its security features and integrations with Firebase and Google Cloud Platform accelerate building serverless apps.

Memorystore: Memorystore, which includes Memorystore for Redis and Memorystore for Memcached, provides a fully-managed in-memory data store service that allows customers to deploy distributed caches that provide sub-millisecond data access.

Cloud Spanner: Cloud Spanner is a fully-managed, mission-critical relational database service. It is designed to provide a scalable online transaction processing (OLTP) database with high availability and strong consistency at global scale.

Cloud SQL: Cloud SQL is a web service that allows you to create, configure, and use relational databases that live in Google's cloud. It is a fully-managed service that maintains, manages, and administers your databases, allowing you to focus on your applications and services.

Networking

Cloud CDN: Cloud CDN uses Google's globally distributed edge points of presence to cache HTTP(S) load balanced content close to your users.

Cloud DNS: Cloud DNS is a high performance, resilient, global, fully-managed DNS service that provides a RESTful API to publish and manage DNS records for your applications and services.

Cloud IDS (Cloud Intrusion Detection System): Cloud IDS is a managed service that aids in detecting certain malware, spyware, command-and-control attacks, and other network-based threats.

Cloud Interconnect: Cloud Interconnect offers enterprise-grade connections to Google Cloud Platform using Google Services for Dedicated Interconnect, Partner Interconnect and Cloud VPN. This solution allows you to directly connect your on-premises network to your Virtual Private Cloud.

Cloud Load Balancing: Cloud Load Balancing provides scaling, high availability, and traffic management for your internet-facing and private applications.

Cloud NAT (Network Address Translation): Cloud NAT enables instances in a private network to communicate with the internet.

Cloud Router: Cloud Router enables dynamic Border Gateway Protocol (BGP) route updates between your VPC network and your non-Google network.

Cloud VPN: Cloud VPN allows you to connect to your Virtual Private Cloud (VPC) network from your existing network, such as your on-premises network, another VPC network, or another cloud provider's network, through an IPsec connection using (i) Classic VPN, which supports dynamic (BGP) routing or static routing (route-based or policy-based), or (ii) HA (high-availability) VPN, which supports dynamic routing with a simplified redundancy setup, separate failure domains for the gateway interfaces, and a higher service level objective.

Google Cloud Armor: Google Cloud Armor offers a policy framework and rules language for customizing access to internet-facing applications and deploying defenses against denial of service attacks as well as targeted application attacks. Components of Google Cloud Armor include: L3/L4 volumetric DDos Protection, preconfigured web-application firewall (WAF) rules, and custom rules language.

- Salesforce

a. Sales Cloud

It is the cloud storage for all your data. Sales Cloud salesforce service helps to accommodate all the data in one place that is cloud so that user can access that data from anywhere and from any device. This Salescloud is used to manage grants and campaigns, fundraising, and automate your organizational process collaborate across teams.

b. Data.com

Data.com helps the user to get contacts and the profile of the company collected from all the leading sources, integrated with Sales cloud. Connect with donors or alumni and get their help to achieve the individual's goals. This help in getting recently updated data which means a user can get the most recent and updated data to accelerate their business.

Have a look at SalesforceNavigation Setup Menu

c. Mobile Connectivity

Salesforce provides you with a feature to connect your mobile phones with your other devices which mean a user can stay connected to his mobile phone too. Interactions, respond to constituents, work on cases, log engagement activities and or check dashboards from any place anywhere. A user can manage the work even from a different state or even a different country.

d. Chatter

Chatter creates by Salesforce which acts as a social media network. It is a place where collaborate instantly in context. The user can update all the records, people, files, and other information that the user need pushes into the chatter feed within seconds so that the work could collaborate which includes: Crowdsourcing ideas and solutions, and videos; solving constituent issues more quickly, sharing files, sites, articles. and even the work can be managed on an informal basis.

e. Service Cloud

This is a new way to provide support to your clients and provide service too. We can use this to provide case management to call center or even a self-service community, we can do this on social media also. This software allows you to provide outstanding after sales services to the users. Some of the features of this software are knowledge base, live chat, social community, and lots more.

g. Platform

This is a Salesforce platform to run all the leading all the custom app with the help of a cloud platform. *Platform as a service (PaaS)* a trusted model for the applications to run on without any disturbance. This can work out the problems of maintaining the hardware and software infrastructure at your company.

- Microsoft Azure

Microsoft Azure, formerly known as Windows Azure, is Microsoft's public cloud computing platform. It provides a range of cloud services, including compute, analytics, storage and networking. Users can pick and choose from these services to develop and scale new applications, or run existing applications in the public cloud.

The Azure platform aims to help businesses manage challenges and meet their organizational goals. It offers tools that support all industries -- including e-commerce, finance and a variety of Fortune 500 companies -- and is compatible with open source technologies. This provides users with the flexibility to use their preferred tools and technologies. In addition, Azure offers 4 different forms of cloud computing: infrastructure as a service (IaaS), platform as a service (PaaS), software as a service (SaaS) and serverless.

Analytics. These services provide distributed analytics and storage, as well as features for real-time analytics, big data analytics, data lakes, machine learning (ML), business intelligence (BI), internet of things (IoT) data streams and data warehousing.

Networking. This group includes virtual networks, dedicated connections and gateways, as well as services for traffic management and diagnostics, load balancing, DNS hosting and network protection against distributed denial-of-service (DDoS) attacks.

Media and content delivery network (CDN). These CDN services include on-demand streaming, digital rights protection, encoding and media playback and indexing.

Integration. These are services for server backup, site recovery and connecting private and public clouds.

Identity. These offerings ensure only authorized users can access Azure services and help protect encryption keys and other sensitive information in the cloud. Services include support for Azure Active Directory and multifactor authentication (MFA).

Internet of things. These services help users capture, monitor and analyze IoT data from sensors and other devices. Services include notifications, analytics, monitoring and support for coding and execution.