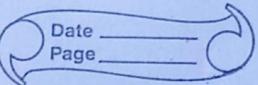


# Assignment - 4.



- Discuss each of the google cloud services. in 2-3 lines.

## Compute

### 1.) Compute Engine (Iaas)

It is a service that is secure and customizable compute service that lets you create and run virtual machine on google Infrastructure.

### 2) APP Engine (PaaS)

It is used to build highly scalable application on a fully managed serverless platform.

### 3) Cloud Functions (FaaS)

Cloud function is scalable pay-as-you-go function or a service [faas] to run your code with zero server management.

## Containers.

### 4. google kubernetes engine (CaaS)

- it is a simple way to automatically deploy scale & manage Kubernetes.
- it is secure by default including vulnerability scanning of container images and data encryption.

## 5.) cloud Run

Containers without Interface.

Containerized application on a fully managed server less platform.

## 6) Container Registry

- It store, manage & secure the Docker containers images.
- it locked down the risky image
- it has fast highly available access.

## Networking

### 7) virtual private cloud

- global virtual network that spans all regions.
- it automatically setup your virtual topology configuring prefix ranges for your subnet of network policies you can config your own

### 8) cloud load balancing.

- it is a fully distributed, software-defined managed service for all traffic.
- it provide high performance, scalability & touch balancing on GCP.

### 9) google cloud Interconnect.

- it connect infrastructure to google cloud from anywhere
- it provide connection for any workload
- it provide unlimited bandwidth with access

## google services.

### 20) cloud dns (domains & dns)

- Reliable, Resilient, low latency DNS serving from google worldwide. Now with everything you need to register manage & serve your domains.

### 21) cloud cdn (cdn)

- fast reliable web and video content delivery with global scale and reach.

### 22) google cloud armers (ddos firewall)

- It help to protect your applications and website against denial of service & web attacks.

## storage

### 13) cloud storage

It is used to object storage for companies of all sizes store any amount of data and retrieve it as often you like.

### 14) persistent disk.

It provide reliable high performance block storage for virtual machine instances.

### 15) persistent Disk.

It provide reliable, high performance block storage for virtual machine instances.

### 16) cloud storage Archive.

- A cloud archive is a storage as a service.  
for long term data retention.

### 17) filestorage (file storage).

- it provides high performance
- and it fully manages file storage.
- protect the data with backup & snapshots.

### 18. memory store.

It Reduce the latency with scalable, secure  
and highly available in memory service  
for redis and memcached.

### Database

#### 19) cloud SQL, cloud spanner. (RDBMS)

- cloud SQL - fully managed relational database
- service for MySQL, PostgreSQL & SQL Server.

- cloud spanner - fully managed relational db with  
unlimited scale, strong consistency & upto 99.99%  
availability.

#### 20) Bigtable, firestore. (NoSQL: Indexed)

##### • cloud Bigtable.

- a fully managed, scalable, NoSQL DB service for  
large analytical and operational workloads with  
99.99% availability.

(21) In memory data store

Reduce latency with scalable, secure and highly available in memory service. for Redis and memcached.

### Data Analytics

(22) BigQuery (Data warehouse)

Serverless, highly scalable & cost effective multi cloud data warehouse designed by business agility.

(23) BigQuery (query services)

- serverless, highly scalable and cost effective multi cloud data warehouse. designed for business agility.

(24) Pub/Sub (messaging)

- Ingest events for streaming into BigQuery.
- Data lakes or operational databases.

(25) Data Proc / Dataflow (processing)

- DataProc is a fully managed and highly scalable service for running Apache spark apache flink, porto and an open source tools & framework.

- Dataflow - stream and batch data processing this enables fast & cost effective

## Q6) Dataflow

undefined store and batch data processing  
thus serverless just & cost-effective.

## Q7) Pub/Sub (stream data ingest workflow)

Ingest events for streaming into Bigquery  
data lakes or operational databases.

## Q8) Cloud Composer (workflow orchestration)

- A fully managed workflow orchestration service
- built on apache Airflow
- free you from lock-in and is easy to use.

## management tools

### Q9) Cloud deployment manager

It is an Infrastructure deployment services  
that automates the creation & management  
of google cloud resources.

### Q10) Cost management

- It is tools for monitoring, controlling, and optimizing the cost.
- optimize your cloud cost of usage with mitigate recommendation.

## operations

### Q11) Cloud monitoring

Gain visibility into the performance

availability & health of your application &  
Infrastructure.

32) cloud Logging.

- fully managed real time log management with storage, search, and analysis & working at exabyte scale.

33) cloud Audit log.

- gain visibility into who did what and where for all user activity on google cloud platform.

34) cloud Debugger

- cloud debugger is a feature of google cloud that lets you inspect of the state of your running application.

35) cloud trace (performance tuning)

- cloud trace is a distributed tracing from your application and display it in the google cloud console.

Security & identity

36) cloud identity & access management (IAM)

- Identity & access management (IAM) let's administration authorize who can take action on specific resource giving you full control and visibility to manage google cloud resource centrally.

### 37) Secret manager

- Secret manager is a secure convenient storage system for API keys, password, certificates and other sensitive data.

### 38) Cloud Key Management Services

- manage encryption keys on google cloud
- it provide helps satisfy compliance privacy and security needs
- provide fast cloud key management.

### 39) Cloud Asset Inventory

- A metadata inventory service that allow you to view, monitor and analyze all your GCP and umathas assets across projects and service.

### 40) web security scanners

- It is a google and centralized vulnerability & threat reporting service . its help you to strength your security posture by evaluating your security & data surface attacks .

### 41) Event threat detection

- It provide security & Risk management platform for google cloud .
- detect threats using logs running in the google cloud at scale .

#### 42) managed service for microsoft active Directory

- It offers high-availability, hardened Microsoft Active Directory Domains hosted by Google cloud. It service helps to reduce the sensitive but manage Administrative task required to manage while Active Directory footprint on Google cloud.

#### 43) machine learning

##### 43) speech to - text (speech)

- Accurately convert speech into text using an API powered by Google's AI technologies.

#### 44) cloud vision

- Devise Insights from your images in the cloud or at the edge with Auto ML vision or pre-trained vision API models to detect emotion.

#### 45) cloud Natural Language API

- It is powerful pre-trained module of the natural language API empower developers to easily apply natural language understanding to their application with features including sentiment Analysis, entity analysis, entire sentiment analysis.

## 46) Cloud Translation

- make your content and apps multilingual with fast, dynamic, machine translation

## 47) Dataflow Enterprise edition

- Reduce development time with interactive flow visualization that allows building to see quickly, understand edit & share their look.

## 48) Video Intelligence API

It has a pre-trained ML methods that automatically recognize a vast numbers of objects, place & action in stored and streaming video.

## Internet of things

## 49) Cloud IOT. (core)

Internet of things.

IOT is a fully managed service that allows you to easily and securely connect, manage and ingest data from millions of globally dispersed devices.