# Google cloud storage

Google cloud storage is a RESTful online file storage web service for storing and accessing data on Google’s infrastructure.

It has single API for all storage classes. The cloud storage have consistent API latency and speed across storage classes simplifies development integration and reduces code complexity. You can set custom policies to transition data seamlessly from one storage class to the next depending on your cost and availability needs at that time. It is designed for 11 lines of durability which is cloud storage is designed for 99.99 that is 11 9s annual durability It stores the data redundantly.

Highly scalable and performant and strongly consistent.

It is scalable, fully managed, highly reliable and cost effective object/blob store

Storage for custom data analytics pipeline. And also uses edge caching.

Working with cloud storage there are two different methods

1. Using console which is provided by Google on the web page or web UI itself.
2. Using gsutil tool is set of commands or tools which are used in cloud SDK.

Cloud storage lets you store unstructured data objects in containers which are known as buckets so you can save static data directly from cloud storage or you can use it to store data for other Google cloud platform services.

**Storage classes :**

There are four types of storage classes

1. Multi regional: used for access the data frequently around the world.
2. Regional: used for access the data frequently from the only one part of the world.
3. Near line : best suited for data which is accessed ones per month.
4. Cold line: best suited for data which is accessed ones per year.

**Cloud SQL**

Google cloud SQL is a fully managed database service that makes it easy to set up, maintain, manage, and administer your relational databases on Google cloud platform.

This service can be integrated with other services such as app engine, compute engine and external services via the external IP.

From cloud sql we create Mysql and postgreSQL database engine.

**Cloud Bigtable :**

Cloud bigtable is google’s NOSQL big data database service. It’s the same database that powers many core Googles services including Search, Analytics, Maps and gmail.

Massively scalable NoSQL database

Great choice for both operational and analytical applications

Offers low latency and high throughput at any scale

Easy integration with hadoop, cloud dataflow and cloud dataproc

HBase compatible

It’s a good choice for both operational and anyalatical applications including IOT and financial analytics.

**Cloud Datastore**

Cloud datastore is a highly scalable NoSQL database for your web and mobile applications.

Document oriented database

Highly scalable and fully managed NoSQL database

Used for mobile and web applications

Provides multiple capabilities such as ASID trasactions.

**Cloud Spanner**

Cloud spanner is a fully managed, mission-critical database service built from the groud up and battle tested for transactional consistency, high availability and global scale.

Horizontally scalable

Fully managed relational database service, Highly available, Offers transactional consistency, Enterprise grade security.

