How does Cloud Storage work?

Single global namespace simplifies locating buckets and objects — Buckets

Bucket properties

Location to control latency — Region (s)

Durability and availability — Replicas

Long object names simulate structure — Objects

Object metadata — Class

Distinguish frequency of access and location

data

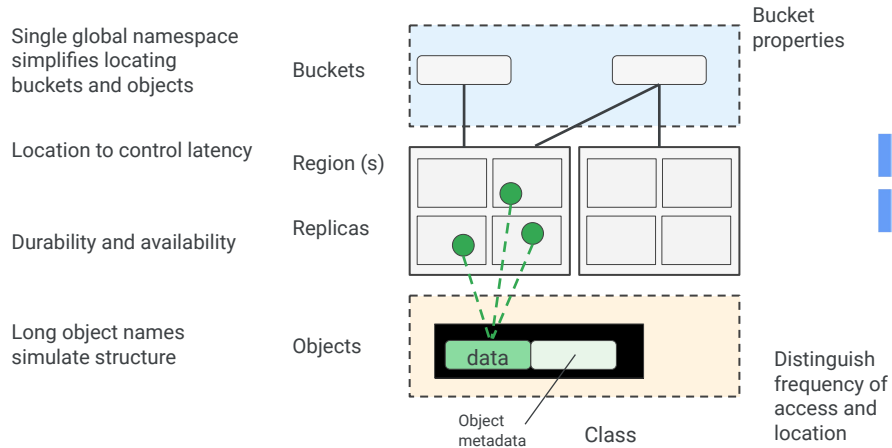Google Cloud

Cloud Storage is an object store. A lot of its amazing properties have to do with the fact of what's missing -- that it is not a file system.

A global namespace for buckets simplifies locating a specific bucket. Buckets are either multi-regional, dual-regional, or regional. Objects within a bucket are replicated across zones.

That gives the objects durability and availability that are not possible in a physical storage device like a disk. Objects have several properties, among them is "class" which declares the frequency of anticipated access of the object.

This allows the Cloud Storage service to distinguish between types of objects and internally manage them to service levels.

Cloud Storage simulates a file system
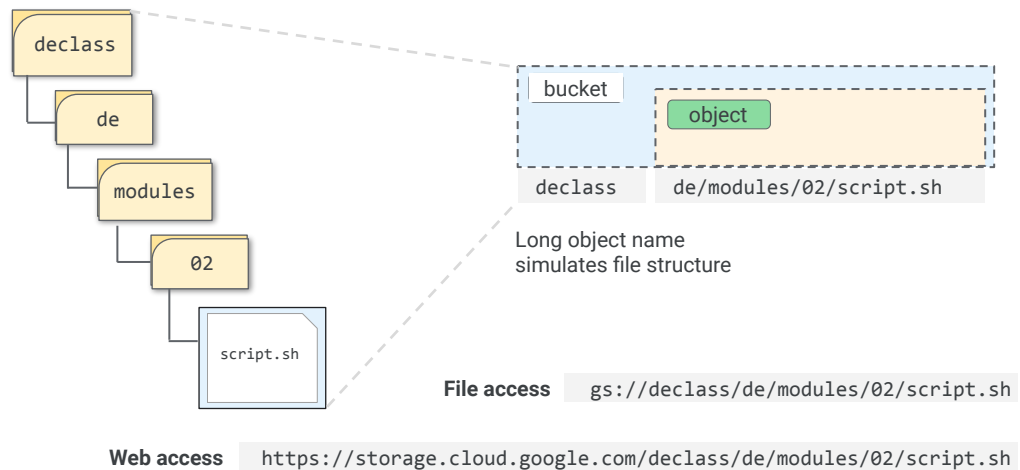
The google storage API uses TLS (HTTPS) to transport your data which protects credentials as well as data in transit.

Here is a tip: avoid the use of sensitive information as part of bucket or object names.