AWS S3

Allows people to store objects (files) in buckets (directories).

Buckets must have globally unique names.

Buckets are defined at the region level

Naming convention

- No uppercase
- No Underscore
- 3-63 characters long
- Not an IP
- Must start with a lower case letter or number

Files inside a bucket have a key. The key is the full path to the file.

- Bucketname/my_file.txt – this would be the key for this file

Maximum value of a file is 5 TB, uploading more than 5 TB would require multi part upload.

Consistency –

Amazon S3 - Consistency Model

- Strong consistency as of December 2020:
- After a:
  - successful write of a new object (new PUT)
  - or an overwrite or delete of an existing object (overwrite PUT or DELETE)
- …any:
  - subsequent read request immediately receives the latest version of the object (read after write consistency)
  - subsequent list request immediately reflects changes (list consistency)

There are multiple storage classes in S3 –

- S3 Standard – General purpose – high durability, high availability
- S3 infrequent access – used for data store for disaster recovery, backups, etc
- S3 one zone IA – same as above but just in one zone. Used to store secondary backup data
- S3 intelligent tiering – will automatically move data between the different tiers

Amazon Glacier used to store file as an alternative to magnetic tape. Retrieval times are high.