**AMAZON S3**

**What is S3?**

* Stands for Simple Storage Service
* A service provided by AWS
* Scalable storage in the cloud
* Object storage build to retrieve any amount of data from anywhere
* A global service
* A bucket can be created and accessed from anywhere

**Features of S3**

* Durability: 99.999999999%

This means the possibility of losing your stored in S3 is one in billion

* Availability: 99.99%

Being able to access data

* Server-side-encryption

Supports three types:

* + SSE-S3: AWS S3 manages encryption keys
  + SSE-C: The customer manages encryption keys
  + SSE-KMS: AWS Key Management Service(KMS) manages encryption keys
* File size support: 0 bytes to 5TB
* Infinite storage
* Pay as you use

**Bucket:**

* Data in S3 is stored in containers called Buckets
* Can be thought as a parent folder of data
* There is a limit of 100 buckets per AWS accounts, but it can be extended

**How to create a bucket?**

* Go to S3 in storage option
* Click on create bucket

**In general configuration:**

* Enter bucket name – it must be globally unique
* Select any region

|  |
| --- |
| Even though S3 is a global service, your data will be stored in the data center of the region you entered |

**In Object Ownership**

* ACL (Access Control List) will be disabled, enable it (to make the objects public)

**In Block Public Access settings for this bucket**

* Block all public access will be enabled, disable it
* Select the check box “I acknowledge”

**In Bucket Versioning**

* It will be disabled, enable it
* Click on create bucket
* A bucket will be created successfully

**Object:**

* Files stored in a bucket
* Example: .pdf, .ppt, .docs, .png, .zip, .mp3 etc

**How to add objects to a bucket?**

* Click on your bucket in the buckets
* Click on upload button
* Click on add files or add folder

**In permissions:**

* In predefined ACLs, select Grant public-read access
* Tick the check-box “I understand the risk of granting public-read access to the specified objects.”
* Click on upload

**Access Control Lists (ACL)**

* A document for verifying the access to S3 buckets from outside your AWS account
* Each bucket has its own ACL

**Versioning**

* Means to always keep a record of previously uploaded files in S3
* Is not enabled by default, we must enable it manually during bucket creation
* Helpful to prevent unintended overwrites and deletions

**S3 Storage Classes**