S3 Notes

1. **Object Store :::** Bucket is an Object Store . Which means a file uploaded is not stored as blocks or chunks like in EBS , it is stored as at is was uploaded . Metadata can also be an Object . A file cannot be more than 5TB as bucket size is not more than that . Objects bigger than that have to be saved in two buckets .

2. **Bucket :::** Bucket is flat structured container means you cannot create buckets in the bucket however you can create folder in the bucket . Bucket is created on Region level and its data is auto replicated in min 3 availably zones . It can only be accessed in other region if it is migrated in that new region .

3. **Limits :::** Max size for the bucket is 5 TB and max 100 bucket can be created after that AWS permission will be required .

4. **Ownership :::** OS can't be installed in was s3. S3 is a distributed storage like HDFS . Bucket ownership is not transferrable has to be deleted only . Can't be transferred .

5. **Bucket Naming Rules :::** Bucket name is always globally unique . Two buckets can't have same name across full AWS . Once deleted some one else can use it . Bucked name can't be changed once created . Min 3 and max 63 chars name is possible . 'xyz abc' name is not possible . 'xyzzy.abs' is possible it can have dots . Lower case characters and numbers can be used but capital letters are not allowed. can be started with _ . It can't be an IP address .

6. **Website :::** It can be used to host a static website .

7. **Access control List :::** By default bucket is private

only . You can define auth on a bucket . You can give permission to a single user , multiple users , authenticated user means you can add a password to access it .

8. **MFA :::** It can be used for deletion and versioning state change from enabled to suspended if some one changes it . With google authenticator , authy etc .

9. **End point :::** https://s3-{{aws_region}}.amazonaws.com/{{bucket_name}}/{{object-name}}/version

10. **Multi Part Upload :::** File will be stored as it is but while uploading a file of 50 MB can be uploaded in 10 parallel uploads of 5 MB . Once uploaded all parts will be joined on server level . Min 5 mb is required for multipart . File greater that size of 5 GB must be uploded with multipart only .

11. **Copying :::** Object can be copied from one to other regions. Copying is chargeable for cross regions . With in same region copying charges are not incurred . However redundant data will be charged . Purpose can be for safety , To move from se standard to IA Or glacier and delete from standard so that cost can be minimised . 5GB files can be moved atomically after 5 GB multipart uploads have to be done .