

S3 (Simple Simple Storage Service):

- 1) S3 is an Object based storage, If Storage is Object based storage, it is not possible to install softwares.
- 2) It's a unlimited storage.
- 3) It is not possible to attach S3 bucket to EC2 instance.
- 4) It's a global level service, but buckets are created at region level.
- 5) Per Account we can create 100 buckets, It's just a soft limit.
- 6) The max file size, which can be uploaded into S3 bucket is 5 TB

Bucket:

- 1) It's a container of objects (Files, images, etc)
- 2) Bucket has its own features
 - a) Versioning
 - b) Access control (ACL)
 - c) We can write policies
 - d) We can write Life Cycle rules
 - e) We can Write Cross region Replication rules.
- 3) Bucket names are DNS compliant

Type of S3 storages:

- 1) Standard (A:99.99%, D:99.999999999 (11 9's))
- 2) Standard-IA (A:99.9%, D:99.9999999 (9 9's))
- 3) RR (A:99.9%, D:99.999999999 (9 9's))
- 4) Glacier (A:N/A D:99.999999999)

We can differentiate S3 storage types based on 3 things:

- 1) Availability
- 2) Durability
- 3) Pricing

Create S3 Bucket:

- 1) Go to S3 dashboard
- 2) Click on "Create Bucket"
- 3) Give any name to the bucket.
- 4) Select any Region
- 5) Click On "Create"

Uploading Files into S3 Bucket:

- 1) Go to S3 dashboard
- 2) Click on bucket
- 3) Click on "Upload" Button

- 4) select any file from your local machine
- 5) click on open and upload

Note : Whenever we upload any object into bucket,
by default it is private, That means no can that
object.

Versioning:

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- 1) If we Enable Versioning on S3 bucket, S3 maintains
Each upload as separate version.
- 2) Each version of file will have unique url
- 3) If you want to see all the versions of a file,
we need to enable "show" button of "Versions" field.
- 4) If versioning is enabled, if delete latest version,
S3 will add delete marker, So that we cannot see the
file. If delete the delete marker, we can able to
see the all the version of the file.

Enabling versioning on S3 bucket:

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- 1) Goto S3 dashboard.
- 2) select the bucket
- 3) click on "properties" tab
- 4) Click on "Versioning"
- 5) Click On Enable.

S3 LifeCycle Rules:

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- 1) If you want to move objects from one s3 storage
class to other s3 storage class automatically we need
to define life LifeCycle rules.
- 2) If you want to move object from Standard to Standard-IA
storage, Object must be 30 days in "Standard" Storage
class.
- 3) If you want to move object from Standard-IA to
Glacier storage, Object must be 30 days in "Standard-IA" Storage
class.

Nav:

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- a) Goto s3 dash board
- b) Select the s3 bucket
- c) click on "Management" Tab
- d) Click on "Life Cycle"
- e) Click On "Add LifeCycle Rule"
- f) Give any name to the rule, Click on "Next"
- g) Select any version or both
- f) Add transition
- g) Define the rules.
- h) click on next->next>save

Note : We can define multiple unique LifeCycle rules
S3 bucket.

Cross Region Replication:

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- 1) To Implement CRR Both the buckets must be in different region & Versioning need to be Enabled
- 2) In CRR ,if we upload object into one bucket same object will be replicated into other region bucket.

Nav:

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- a) Goto S3 dashboard
- b) Select the bucket
- c) Click on "Management" tab
- d) Click on Replication
- e) Click on "Get Started"
- f) Select the destination Bucket
- g) Click on "IAM Role" Field Drop downbox, select "Create New Iam Role"
- h) Give any name to rule.
- i) Click on Next --> Save
- j) Try to upload object into the bucket from your local machine, Something will replicated into other bucket also.

Coping objects from ubuntu Ec2 instance s3 bucket

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- 1) Launch an ubuntu ec2 instance
- 2) Login into Ec2 instance
- 3) Install AWS cli Software
`sudo apt-get update`
`sudo apt-get install awscli`
- 4) Verify aws cli is installed or not by using below command
`aws --version`
- 5) If you want run aws cli command we to configure "AccessKey" "Secret AccessKey" Detail of AWS account
 - a) Goto AWS Dashboard
 - b) Click on Account Name (^)
 - c) Click on "My Security Credentials"
 - d) Click on "Access keys (access key ID and secret access key)"
 - e) Click on "Create New access key"
 - f) Click on Download file.
- 6) Login into Ec2 instance
- 7) Run below command
`aws configure`
- 8) Provide Accesskey and secret accesskey detail, which are inside downloaded file
- 9) give any aws region code (ex :us-east-2)

10) Click on enter

11) Now we can copy any file from

ec2 instance s3 bucket by using "aws s3 cp"
command.

Syntax: aws s3 cp <filename> <bucket_name>

ex : aws s3 cp /etc/passwd s3://intelliq28

aws s3 cp s3://intelliq28/1.txt .

aws s3 ls

aws s3 ls s3://intelliq28