S3 (Simple Simple Storge Service):
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1) S3 is an Object based storge, If Storge is Object based storge ,it is not possible to install softwares.
2) Its a unlimited storge.
3) It is not possible to attach S3 bucket to Ec2 instance.
4) Its a global level service,but bucket 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:
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1) It a container of objects(Files,imagaes,etc)
2) Bucket is having it own featutes
   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 name's are DNS compliance

Type of S3 storges:
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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 differntiate s3 storge types based on 3 things:

1) Availability
2) Duarabulity
3) Pricing

Create S3 Bucket:
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1) Goto 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:
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1) Goto S3 dashboard
2) Click on bucket
3) Click on "Upload" Button

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

Note : Whenever we upload any object into bucket,
   by default it an 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 saparate 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 cannt 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 storge
class to other s3 storge class automatically we need
to define life LifeCycle rules.
2) If you want to move object from Standard to Standard-IA
storge ,Object must be 30 days in "Standard" Storge
class.
3)If you want to move object from Standard-IA to
Glacier storge ,Object must be 30 days in "Standard-IA" Storge
class.

Nav:
===
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, Ckick 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, Samething 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" "Secreat 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.

   Syntas: 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