# **S3**

## **Create S3 Bucket**

* Create S3 Bucket
* Uncheck block all public access
* Upload objects to the bucket
* Enable make public access for each object you uploaded if you have to provide public access
* Go to Object URL and access it from browser to see the content of the object you uploaded

## Security & Encryption

* Enable the encryption and verify

## Versioning

* Login to AWS Console
* Click on S3
  + Create New Bucket myversioningbucket
  + Make bucket as public
  + Turn on Versioning
  + Upload a file to a bucket
  + Make file as public
  + Update and upload the same file again
  + Make the file public
  + Click on Show versions
  + Update and upload the file again
  + Make it public
  + Hide versions then Delete the file, Bucket shows as empty but you can see versions with Delete marker
  + Delete the delete marker to restore the file

## **Cross region Replication**

* Login to AWS Console
* Search for S3
* Upload three files to an existing Bucket (**myversioningbucket**) (or Create new Bucket if you don’t create the one already)
* Create New Bucket (**MyCrossRegionReplicationBucket**) in different region (Ex: Sydney)
* Now we need to replicate the objects from **myversioningbucket** to **MyCrossRegionReplicationBucket**
* Click on **myversioningbucket** 🡪 Management 🡪 Replication then click on “Get Started”
* Go over the Different options we have on the screen then Click on Next
* Select **MyCrossRegionReplicationBucket**  as Destination Bucket
* We need to enable versioning on the bucket **MyCrossRegionReplicationBucket** to enable Cross region Replication
* Create IAM Role **S3CRR while configuring the Replication**
* **Click on Next 🡪 Save**

Now Upload files/Objects to Bucket1 and verify if these objects are uploaded to Secodn Bucket also

## **CloudFront**

* Login to AWS Console
* Take a note of What region you are in
* Create S3 bucket in the Region which is farthest from Your Region (For Ex: Select Sydney Region and Bucket name is **mysydneyCloudFrontbucket**)
* Upload the image to the bucket
* Make the Bucket and image Public
* Access from Browser
* Now Let us create CloudFront and make S3 as Source
* Go back to AWS Console and search for CloudFront
* Click on Create Distribution
* Click on Get Started under Web
  + **Origin Domain Name:** Select S3 bucket that we created
  + Restrict Bucket access yes
  + Origin access identity: Create new identity
  + Comment – access-identity
  + Grant Read permissions - Yes Update Bucket policy
  + Viewer Protocol Policy: Redirect HTTP to HTTPS
  + Allowed HTTP Methods: GET HEAD
  + Default TTL 86400 (Seconds)
* Click on Create Distribution
* Go to CloudFront Distributions
* Wait till the status changes to deployed
* Click on ID and go over different Tabs
* Invalidations – Removes cached objects from Edge Locations
* Click on S3 Object URL to load it in Browser
* Copy CloudFront Domain Name/Objectname (In General tab) and access from Browser to see the difference
* Disable and Delete the CloudFront