

Bucket versioning , bucket replication **(SRR and CRR) , static website** **hosting**

What it actually is

Bucket Versioning in **Amazon S3** means every time you upload, modify, or delete a file (object), S3 keeps the old version instead of overwriting it.

No versioning = new upload replaces old file permanently.

With versioning = old file stays, new file gets a unique **Version ID**.

Why It Matters (Real Use Cases)

1. Accidental delete recovery

- If someone deletes project.zip, S3 just adds a **Delete Marker**.
- Old versions still exist.
- You can restore them.

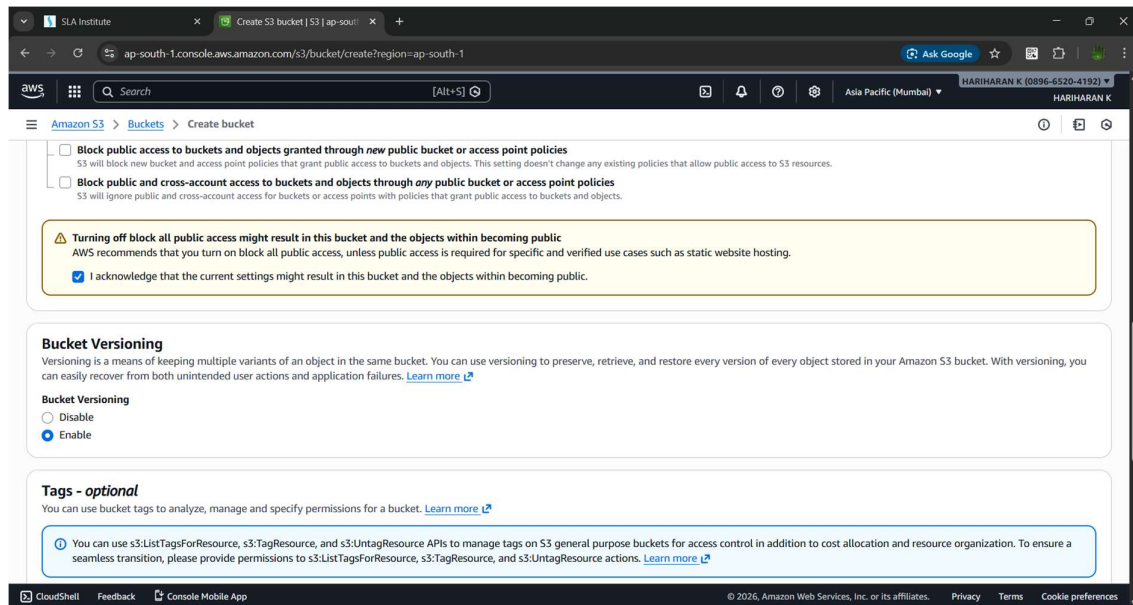
2. Rollback capability

- Broke production config?
- Just restore previous version.

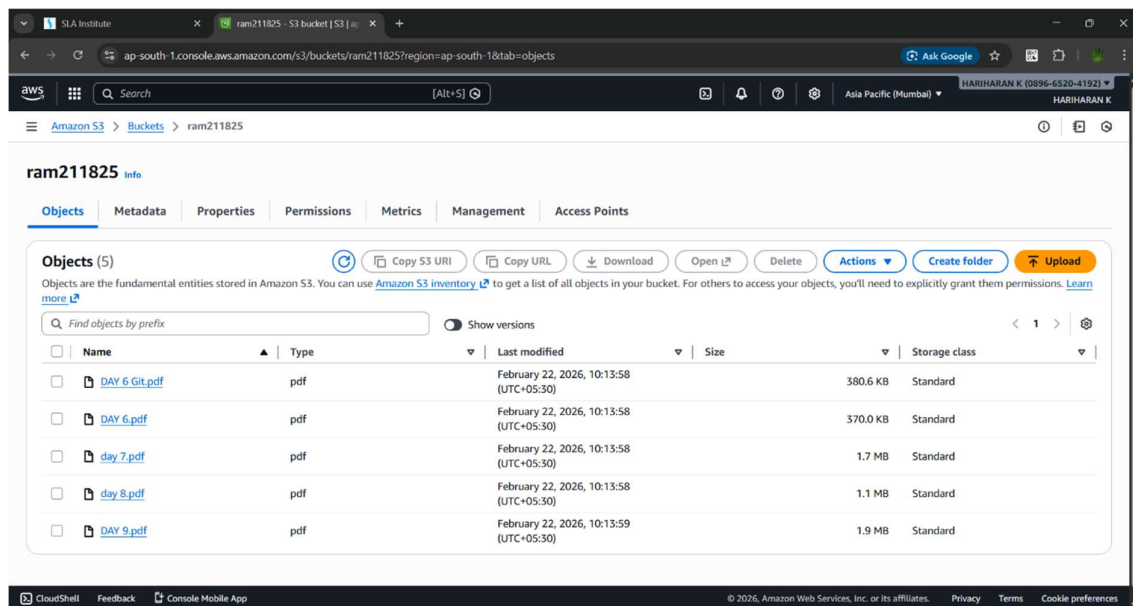
3. Protection from overwrites

- If someone uploads wrong data, you don't lose original.

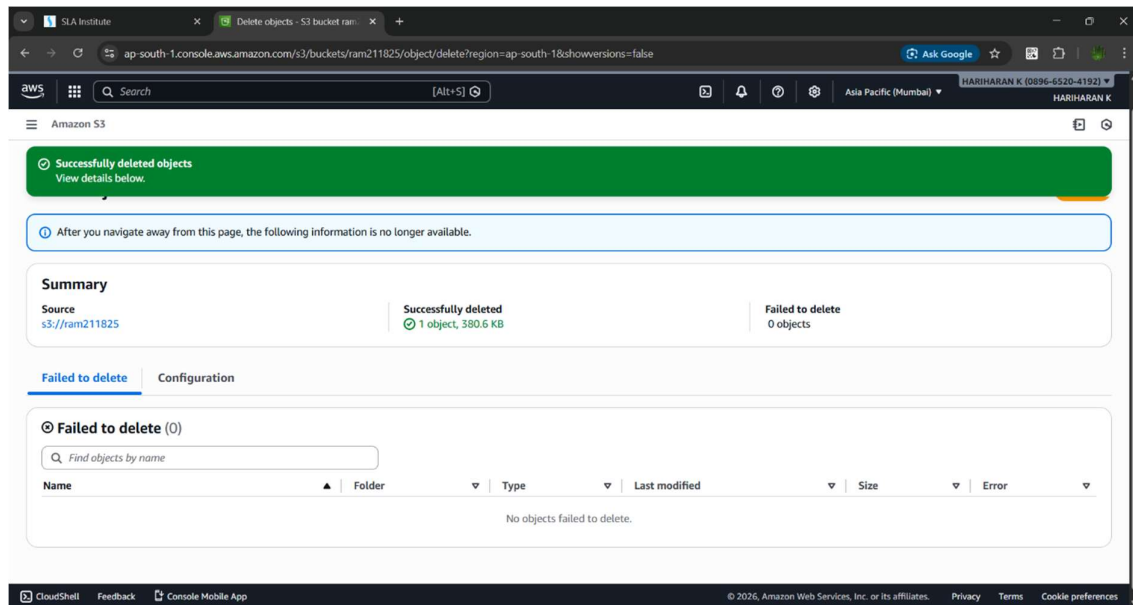
Bucket versioning is only suspended not to be disabled , and I have enabled after creating the bucket.



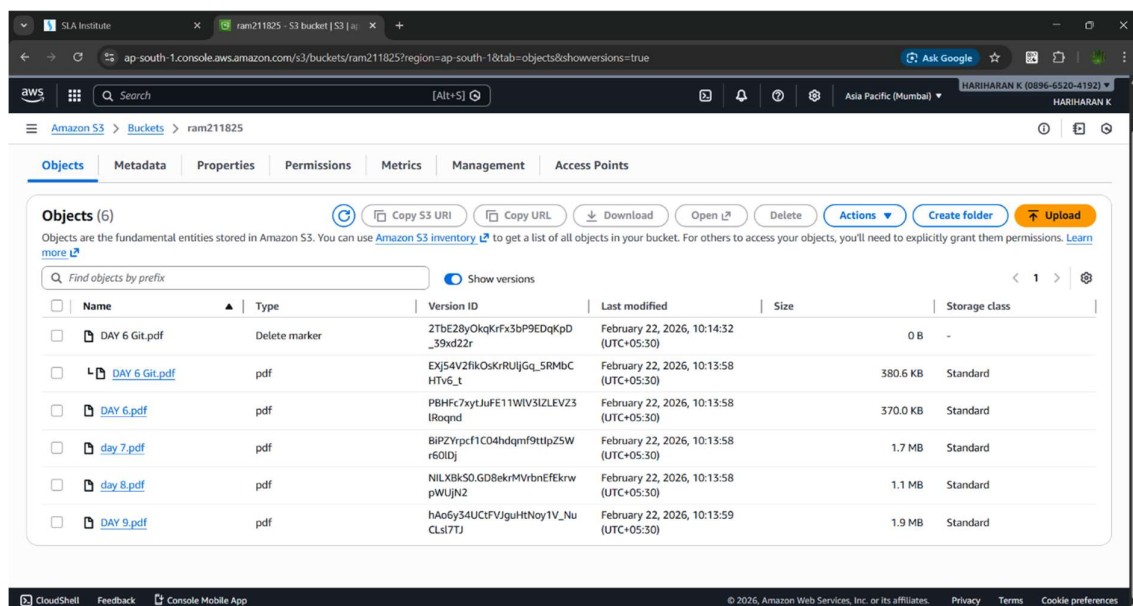
I upload the files in the bucket



I delete the Day 6 git.pdf file



The deleted file is stored in the “delete marker”



The bucket versioning enabled means the bucket will create and version id we can retrieve the older version when we delete the file.

Delete the “delete marker” file to retrieve the older version

SLA Institute ram211825 - S3 bucket | S3 | ap south-1:console.aws.amazon.com/s3/buckets/ram211825?region=ap-south-1&tab=objects&showversions=true

Amazon S3 Buckets ram211825

ram211825 info

Objects (1/6)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Find objects by prefix Show versions

Name	Type	Version ID	Last modified	Size	Storage class
DAY 6 Git.pdf	Delete marker	2TbE28yOkqKrfx3bP9EDqKpD_39xd22r	February 22, 2026, 10:14:32 (UTC+05:30)	0 B	-
DAY 6 Git.pdf	pdf	EXj54V2fikOskRUIJGq_SRMbC HTv6_t	February 22, 2026, 10:13:58 (UTC+05:30)	380.6 KB	Standard
DAY 6.pdf	pdf	PBHfC7xytJufE11WV3LZLEVZ3 lRoqnd	February 22, 2026, 10:13:58 (UTC+05:30)	370.0 KB	Standard
day 7.pdf	pdf	BiPZYrpcf1C04hdqm9tUpZ5W r60lD	February 22, 2026, 10:13:58 (UTC+05:30)	1.7 MB	Standard
day 8.pdf	pdf	NILXBkS0.GD8ekrMvrbnEfeknw pWUJN2	February 22, 2026, 10:13:58 (UTC+05:30)	1.1 MB	Standard
DAY 9.pdf	pdf	hAo6y34UCiFVJguHtNoy1V_Nu CLsI7J	February 22, 2026, 10:13:59 (UTC+05:30)	1.9 MB	Standard

SLA Institute Delete objects - S3 bucket ram: ap-south-1:console.aws.amazon.com/s3/buckets/ram211825/object/delete?region=ap-south-1&showversions=true

Amazon S3

Successfully deleted objects
View details below.

Delete objects: status

After you navigate away from this page, the following information is no longer available.

Summary

Source	Successfully deleted	Failed to delete
s3://ram211825	1 object	0 objects

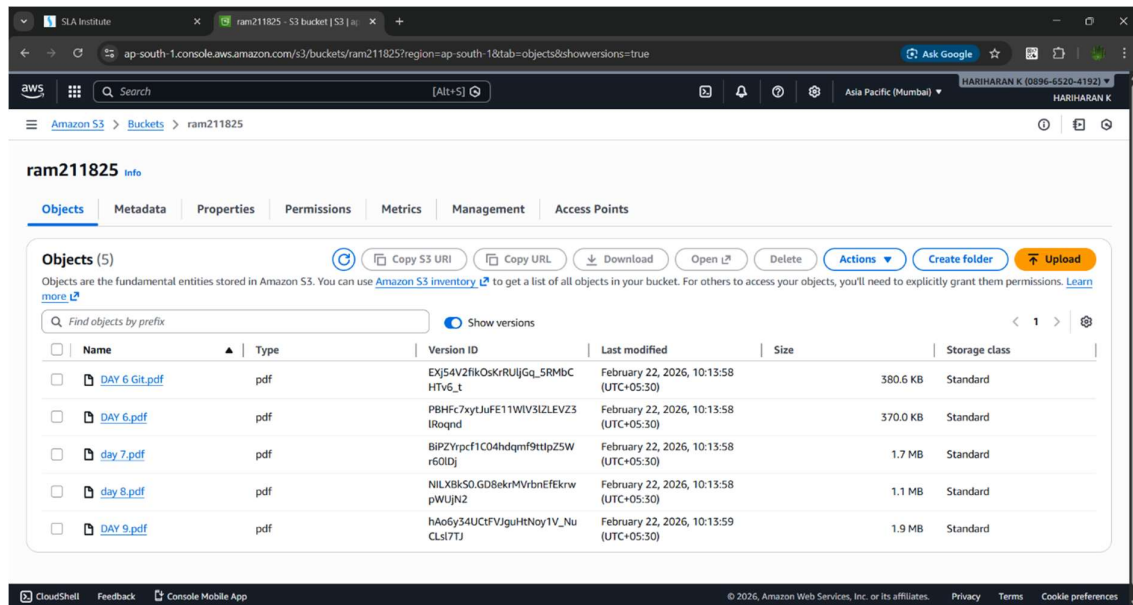
Failed to delete Configuration

Failed to delete (0)

Find objects by name

Name	Folder	Version ID	Type	Last modified	Size	Error
No objects failed to delete.						

The older version of the file is retrieved



Bucket Replication.

What It Actually Is

S3 Bucket Replication automatically copies objects from one S3 bucket to another.

There are two types:

- **CRR (Cross-Region Replication)** → Different AWS regions
- **SRR (Same-Region Replication)** → Same region

Why Replication Exists

Disaster Recovery

- If your primary region fails, your data exists elsewhere.

Low Latency Access

- Users in another country? Store data closer to them.

Compliance

- Some laws require data to exist in specific regions.

Multi-Account Strategy

- Replicate from production account → backup account.

TYPES OF REPLICATION.

1. Cross-Region Replication (CRR)

Replicates objects to a **different AWS region**.

Example:

- Source → Mumbai region
- Destination → Singapore region

Used for:

- Disaster Recovery
- Global applications
- Region-level failure protection

Reality:

- Costs more (data transfer charges apply)
- Good for serious production setups

2. Same-Region Replication (SRR)

Replicates objects to another bucket in the **same region**.

Used for:

- Log copying
- Compliance separation
- Multi-team access segregation

Cheaper than CRR (no cross-region transfer cost)

3. Cross-Account Replication

Replication between **different AWS accounts**.

Used for:

- Production account → Backup account

- Security isolation
- Enterprise setups

Requires:

- IAM role permissions
- Bucket policy on destination

This is how mature DevOps teams operate.

4. Delete Marker Replication

Controls whether object deletions are replicated.

- Enabled → Delete in source = Delete in destination
- Disabled → Destination keeps object even if source deletes

I have created two bucket in different regions.

This the source bucket.

The screenshot shows the AWS Management Console interface for creating a replication rule. The breadcrumb navigation indicates the path: Amazon S3 > Buckets > ram211825 > Replication rules > Create replication rule. The main heading is 'Create replication rule' with an 'Info' link. Below this, the 'Replication rule configuration' section contains three main fields: 'Replication rule name' with the value 'ramseetha211825', 'Status' with the 'Enabled' radio button selected, and 'Priority' set to 0. The 'Source bucket' section below shows the 'Source bucket name' as 'ram211825' and the 'Source Region' as 'Asia Pacific (Mumbai) ap-south-1'.

The replication role name is <>

Select the enable checkbox

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Create replication rule - S3 bucket

ap-south-1.console.aws.amazon.com/s3/management/ram211825/replication/create?region=ap-south-1

aws

Search [Alt+S]

Asia Pacific (Mumbai)

HARIHARAN K (0896-6520-4192)

HARIHARAN K

Amazon S3 > Buckets > ram211825 > Replication rules > Create replication rule

Create replication rule Info

Replication rule configuration

Replication rule name

ramseetha211825

Up to 255 characters. In order to be able to use CloudWatch metrics to monitor the progress of your replication rule, the replication rule name must only contain English characters.

Status

Choose whether the rule will be enabled or disabled when created.

☒ Enabled

☐ Disabled

Priority

The priority value resolves conflicts that occur when an object is eligible for replication under multiple rules to the same destination. The rule is added to the configuration at the highest priority and the priority can be changed on the replication rules table.

0

Source bucket

Source bucket name

ram211825

Source Region

Asia Pacific (Mumbai) ap-south-1

CloudShell Feedback Console Mobile App

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Select the apply to all objects in the buckets

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Create replication rule - S3 bucket

ap-south-1.console.aws.amazon.com/s3/management/ram211825/replication/create?region=ap-south-1

aws

Search [Alt+S]

Asia Pacific (Mumbai)

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0

Source bucket

Source bucket name

ram211825

Source Region

Asia Pacific (Mumbai) ap-south-1

Choose a rule scope

☐ Limit the scope of this rule using one or more filters

☒ Apply to all objects in the bucket

Destination

Destination

You can replicate objects across buckets in different AWS Regions (Cross-Region Replication) or you can replicate objects across buckets in the same AWS Region (Same-Region Replication). You can also specify a different bucket for each rule in the configuration. [Learn more](#) or see [Amazon S3 pricing](#).

☒ Choose a bucket in this account

☐ Specify a bucket in another account

Bucket name

Choose the bucket that will receive replicated objects.

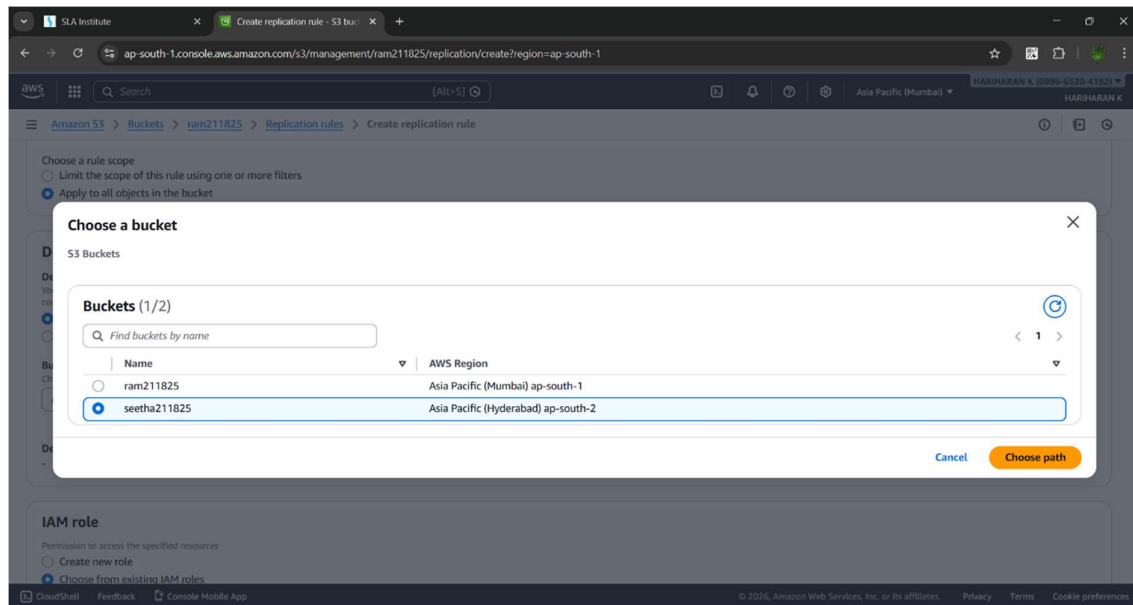
Enter bucket name

Remove S3

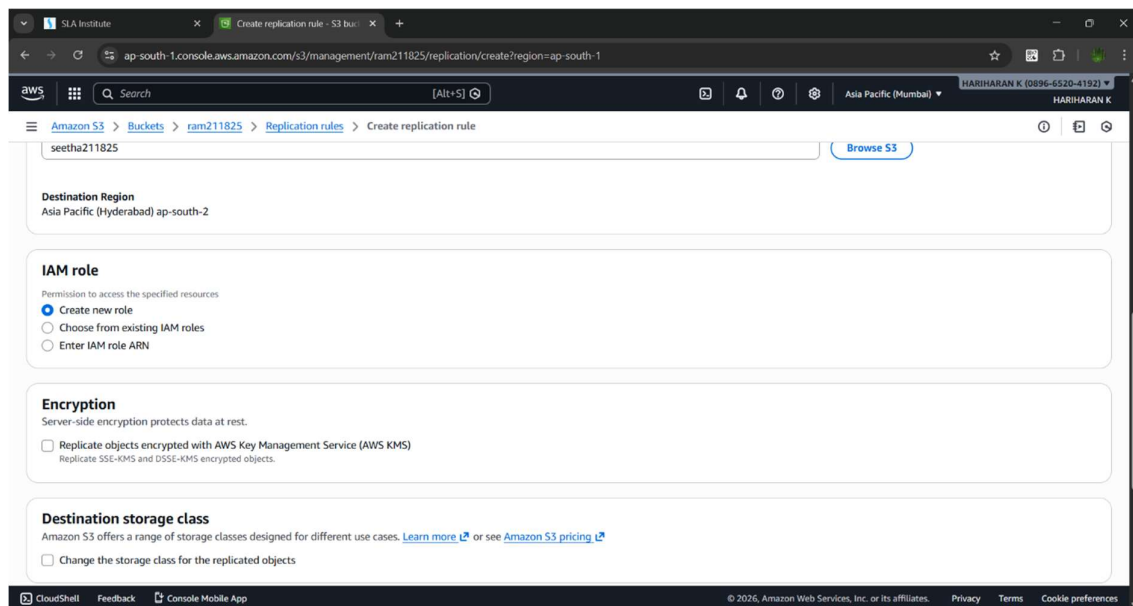
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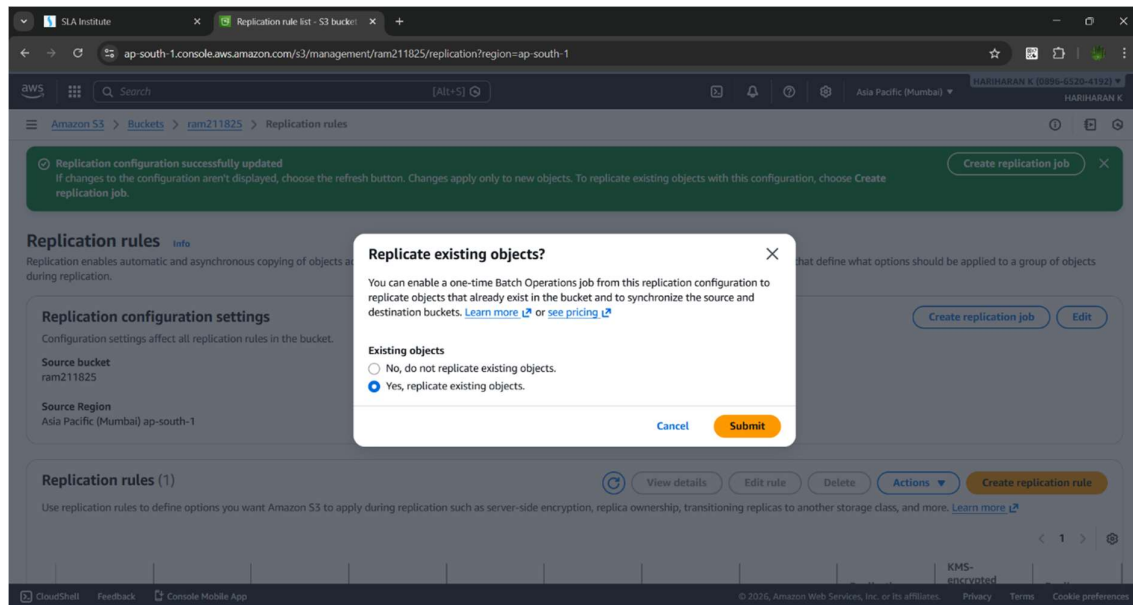
Select the destination bucket



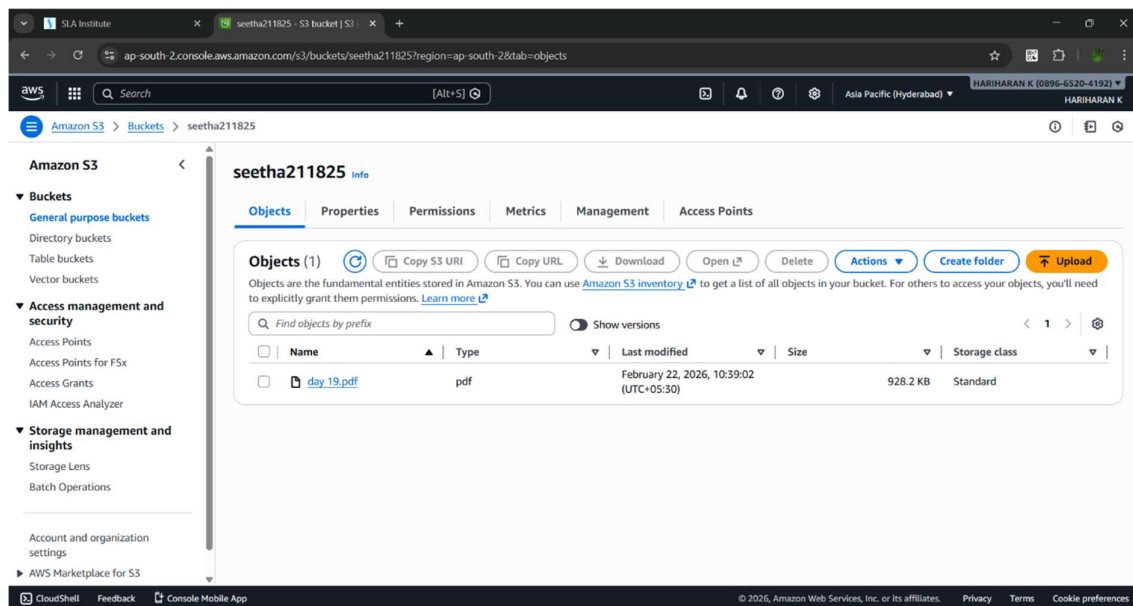
Create the IAM role



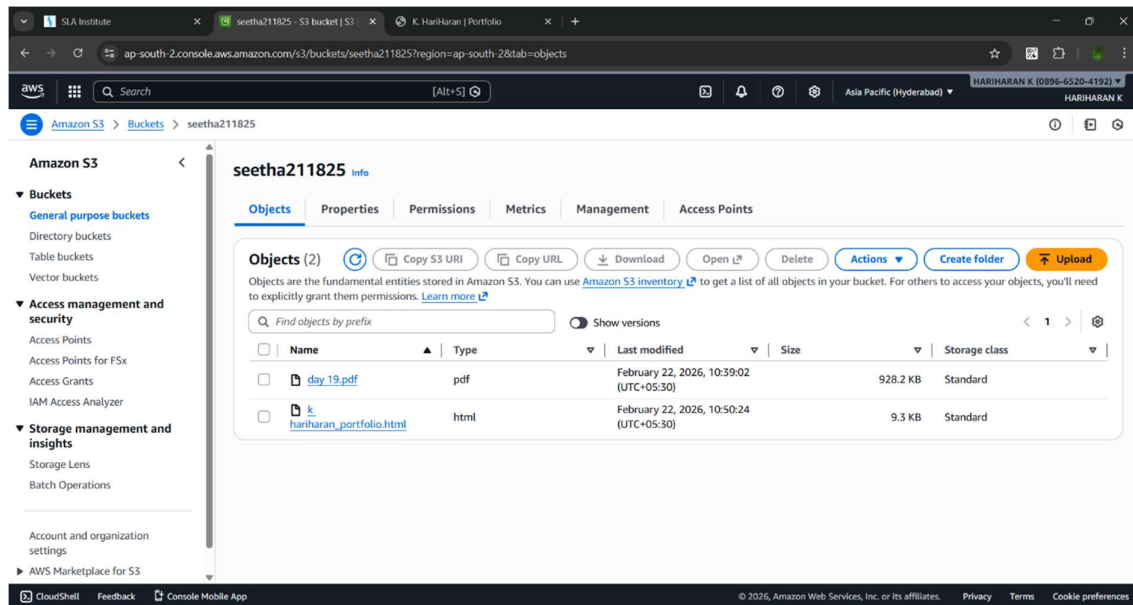
Check the existing objects replication



The file day 19 is replicated in the destination file



The both files are replicated in the destination file



Static Web Hosting.

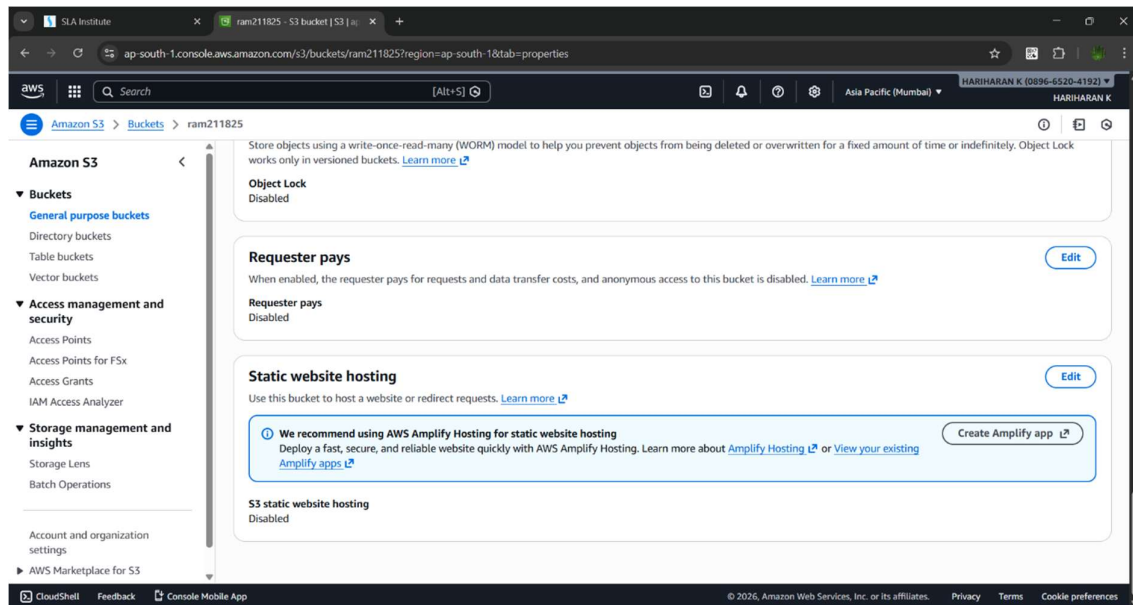
What You Actually Get

- Cheap hosting
- High durability (11 9's)
- Auto scaling
- Public HTTP endpoint
- No server management

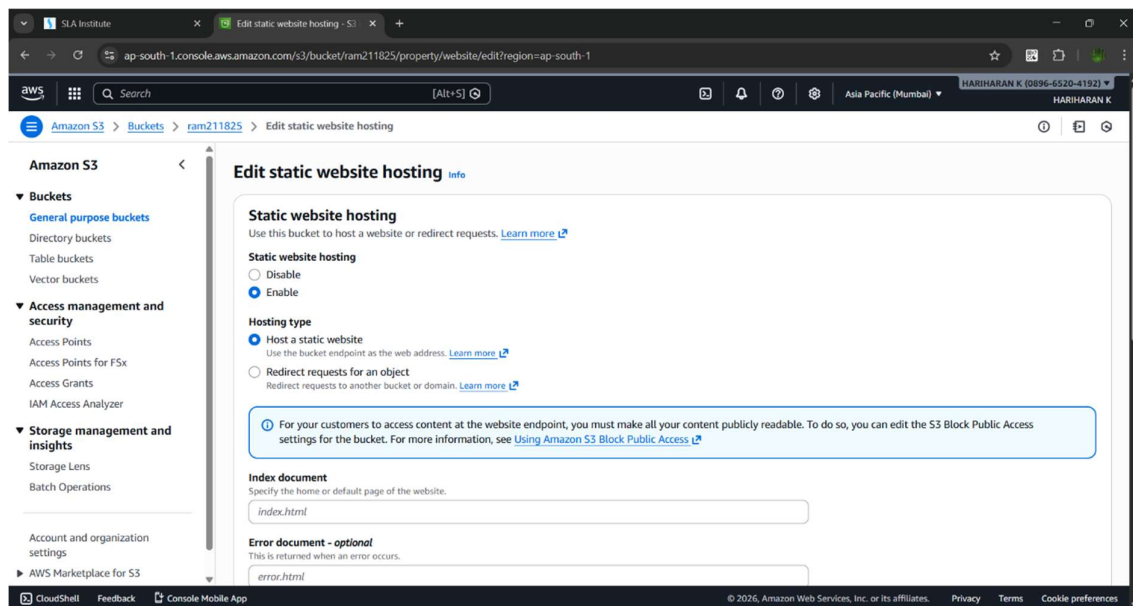
What you don't get:

- No server-side code execution
- No HTTPS by default (you need CloudFront for that)
- No database

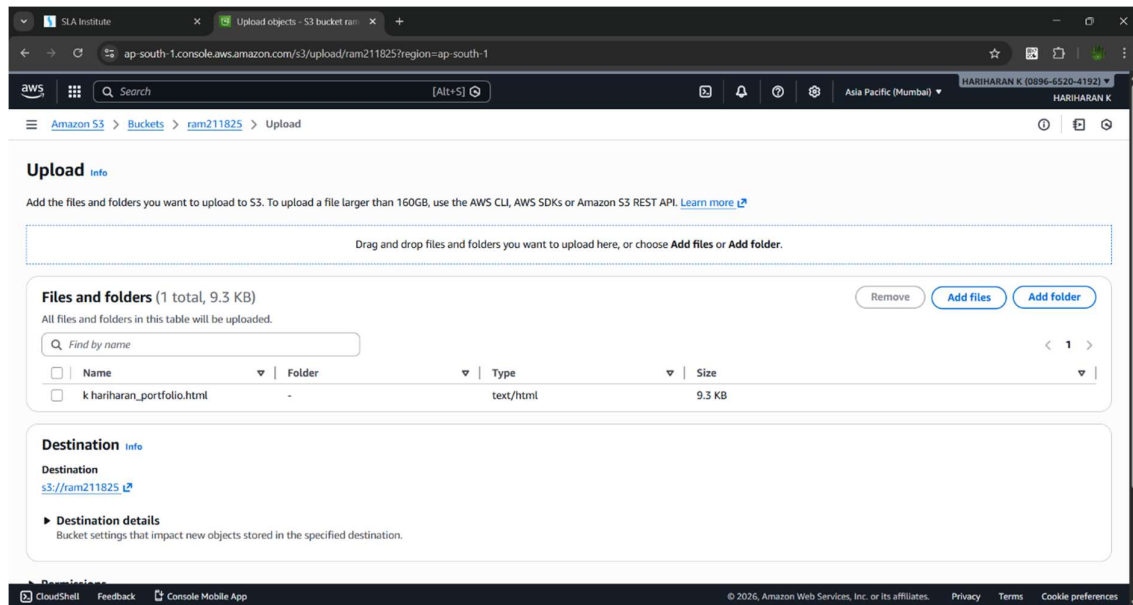
To enable the static web hosting in the s3 we have to enable ACLs , Bucket versioning , and allow all public access (I have already done it).



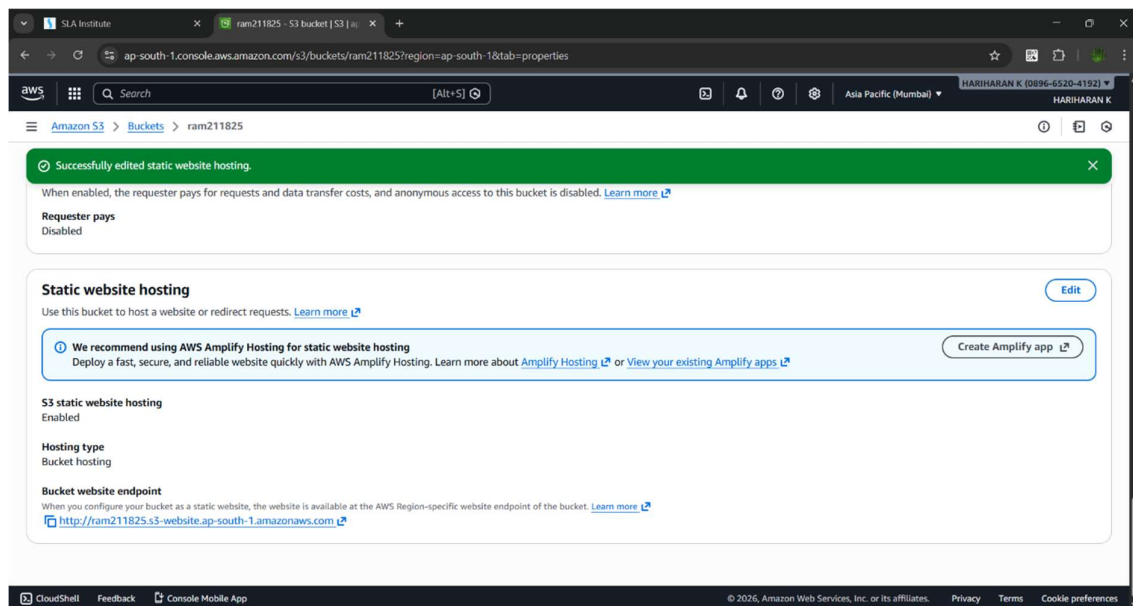
Enable the static web hosting checkbox



Add file name of the hosting file



The web hosting is enabled



This is the hosted web

