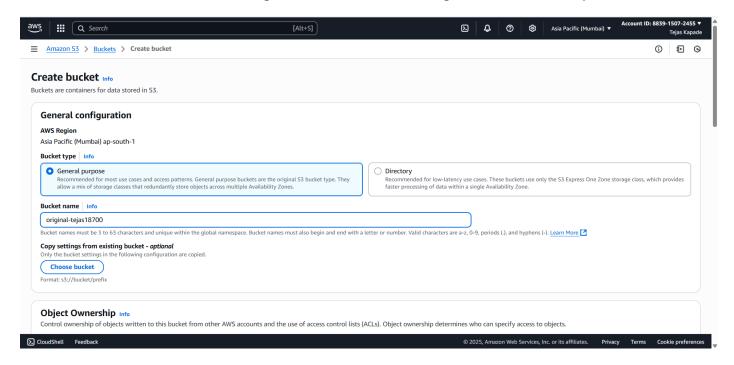AWS, S3 Replication
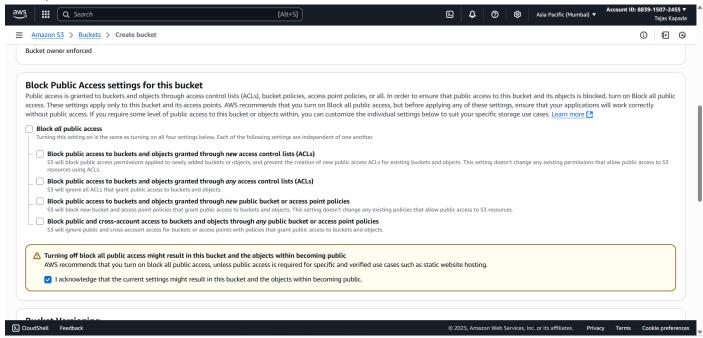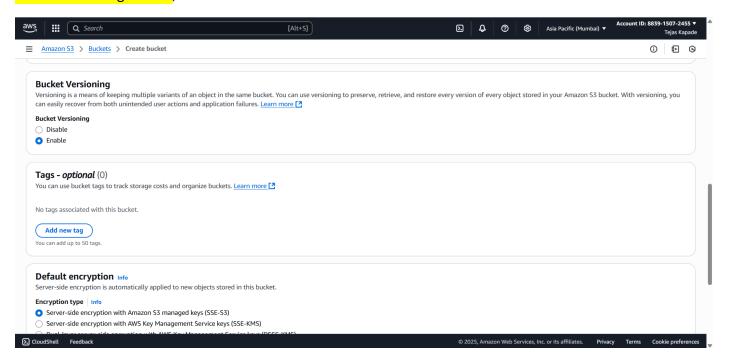
13-08-2025

Tejas Kapade.

1. Create 2 S3 buckets in different regions, we will call one as original and second is replica,

Allow public access,

==Select versioning enable,==

Creating Replica,

Both buckets are in different regions,

2. Upload files in original bucket,

Amazon S3 > Buckets > original-tejas18700

original-tejas18700 Info

Objects | Properties | Permissions | Metrics | Management | Access Points

Objects (1)

Copy S3 URI | Copy URL | Download | Open ↗ | Delete | Actions ▾ | Create folder | ↥ Upload

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 | < 1 > ⚙

	Name	Type	Version ID	Last modified	Size	Storage class
☐	Brown White Simple International Day Of Friendship Instagram Post.png	png	W_J32MS92E2Zz4S_h8 1tqRSr78AuyUSl	August 13, 2025, 11:45:37 (UTC+05:30)	306.4 KB	Standard

---

Amazon S3 > Buckets > original-tejas18700

original-tejas18700

Objects | Properties | Permissions | Metrics | **Management** | Access Points

Lifecycle configuration

To manage your objects so that they are stored cost effectively throughout their lifecycle, configure their lifecycle. A lifecycle configuration is a set of rules that define actions that Amazon S3 applies to a group of objects. Lifecycle rules run once per day.

Lifecycle rules

View details | Edit | Delete | Actions ▾ | Create lifecycle rule

Use lifecycle rules to define actions you want Amazon S3 to take during an object's lifetime such as transitioning objects to another storage class, archiving them, or deleting them after a specified period of time. Learn more ↗

Lifecycle rule name	Status	Scope	Current version actions	Noncurrent versions ac...	Expired object delete ...	Incomplete multipart ...

No lifecycle rules
There are no lifecycle rules for this bucket.

Create lifecycle rule

Replication rules (0)

View details | Edit rule | Delete | Actions ▾ | Create replication rule

Use replication rules to define options you want Amazon S3 to apply during replication such as server-side encryption, replica ownership, transitioning replicas to another storage class, and more. Learn more ↗

Amazon S3 > Buckets > original-tejas18700

Create lifecycle rule

Replication rules (0)

View details | Edit rule | Delete | Actions ▾ | Create replication rule

Use replication rules to define options you want Amazon S3 to apply during replication such as server-side encryption, replica ownership, transitioning replicas to another storage class, and more. Learn more ↗

Replication rule name	Status	Destination bucket	Destination Region	Priority	Scope	Storage class	Replica owner	Replication Time Control	KMS-encrypted objects (SSE-KMS or DSSE-KMS)	Replica modification sync

No replication rules
You don't have any rules in the replication configuration.

Create replication rule

Inventory configurations (0)

Edit | Delete | Create job from manifest | Create inventory configuration

You can create inventory configurations on a bucket to generate a flat file list of your objects and metadata. These scheduled reports can include all objects in the bucket or be limited to a shared prefix. Learn more ↗

Name	Status	Scope	Destination	Frequency	Last export	Format

No configurations
No configurations to display

Create inventory configuration

3. Replicate files in replica bucket, it will take time as it is asynchronous copying of data,

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.

| replica-tejas18700 | **Browse S3** |

Destination Region

Asia Pacific (Singapore) ap-southeast-1

IAM role

Permission to access the specified resources

- ○ Create new role
- ⦿ Choose from existing IAM roles
- ○ Enter IAM role ARN

IAM role

Asia Pacific (Singapore) ap-southeast-1

IAM role

Permission to access the specified resources

- ⦿ Create new role
- ○ Choose from existing IAM roles
- ○ Enter IAM role ARN

Encryption

Server-side encryption protects data at rest.

- ☐ Replicate objects encrypted with AWS Key Management Service (AWS KMS)
  Replicate SSE-KMS and DSSE-KMS encrypted objects.

Destination storage class

Amazon S3 offers a range of storage classes designed for different use cases. Learn more 🔗 or see Amazon S3 pricing 🔗

- ☐ Change the storage class for the replicated objects

Additional replication options

- ☐ Replication Time Control (RTC)

⊘ **Replication configuration successfully updated**
If changes to the configuration aren't displayed, choose the refresh button. Changes apply only to new objects. To replicate existing objects with this configuration, choose **Create replication job**.

Create replication job ✕

Replication rules Info

Replication enables automatic and asynchronous copying of objects a[...] that define what options should be applied to a group of objects during replication.

Replication configuration settings

Configuration settings affect all replication rules in the bucket.

Create replication job · **Edit**

Source bucket
original-tejas18700

Source Region
Asia Pacific (Mumbai) ap-south-1

Replicate existing objects? ✕

You can enable a one-time Batch Operations job from this replication configuration to replicate objects that already exist in the bucket and to synchronize the source and destination buckets. Learn more 🔗 or see pricing 🔗

Existing objects

- ○ No, do not replicate existing objects.
- ⦿ Yes, replicate existing objects.

Cancel · **Submit**

Replication rules (1)

Use replication rules to define options you want Amazon S3 to apply during replication such as server-side encryption, replica ownership, transitioning replicas to another storage class, and more. Learn more 🔗

View details · **Edit rule** · **Delete** · **Actions ▼** · **Create replication rule**

< 1 >

KMS-encrypted

Create Batch Operations job

Job settings
A job is used to execute batch operations on a list of S3 objects. The list of objects is contained in a replication manifest object generated by S3.

Job run options
You can choose whether to have the job start automatically after the replication manifest is generated or to have the job wait in the *Awaiting your confirmation to run* status until you run the job.

◉ **Automatically run the job when it's ready**
   When selected, the job automatically runs without waiting for you to start it.

○ **Wait to run the job when it's ready**
   Recommended if you want to review the manifest or job details before running the job.

Completion report
Generate a CSV completion report that lists your target objects, task success or error codes, outputs, and descriptions. Completion reports are encrypted using SSE-S3. Learn more 🔗

☑ Generate completion report

Completion report scope
◉ Failed tasks only
○ All tasks

Completion report destination
Specify a general purpose bucket location to store the completion report. Learn more 🔗

| s3://original-tejas18700 |

View 🔗   Browse S3

Format: s3://<bucket>/<optional-prefix-with-path>. S3 will append the path with a "/". If you add a "/" to the prefix, it will appear as an extra folder in the S3 console.

Permissions
Choose an IAM role with the required access permissions and trust relationships 🔗 . An IAM role policy template based on your job configuration, and the IAM trust policy required for batch operations to assume the IAM role are available below. Learn more about IAM roles 🔗 .

▶ View IAM role policy template and IAM trust policy

Permission to access the specified resources
○ Create new role
◉ Choose from existing IAM roles
○ Enter IAM role ARN

IAM role

| s3crr_role_for_original-tejas18700   ▼ | ↻   View 🔗

Cancel   **Save**

✓ Successfully created job ID 9a24bd6f-c35d-485d-b3f5-bba39e508470   View details   ✕
   The time it takes to prepare a job is based on the size of the job's manifest and the time required to complete higher-priority jobs.

Batch Operations Info
A job is used to execute batch operations on a list of S3 objects. Job events are published to CloudWatch Events 🔗 .

Jobs (1)

↻   Run job   Actions ▼   Clone job   **Create job**

| Search by job ID or description | | All status types ▼ | < 1 > ⚙

	Job ID	Status ▼	Description ▼	Operation ▼	Date created ▼	Total objects ▼	% Complete ▼	Total failed (rate) ▼	Priority ▼
○	9a24bd6f-c35d-485d-b3f5-bba39e508470	⊘ New	2025-08-13 - Replicate	Replicate	August 13, 2025, 11:52:49 (UTC+05:30)	Not yet available	0%	0 (0%)	10

4. We will replicate data from different Account; we will required Account ID of user.

Screen 1

AWS — Search [Alt+S] — Asia Pacific (Mumbai) — Account ID: 8839-1507-2455 — Tejas Kapade

Amazon S3 > Buckets > original-tejas18700 > Replication rules > Create replication rule

☐ Change object ownership to destination bucket owner
Objects in the source bucket not owned by the source bucket owner will be replaced with access policy that grants full permission to the destination bucket owner

IAM role
Permission to access the specified resources
○ Create new role
● Choose from existing IAM roles
○ Enter IAM role ARN

IAM role
s3crr_role_for_original-tejas18700 ▼   ↻   View ⧉

Encryption
Server-side encryption protects data at rest.
☐ Replicate objects encrypted with AWS Key Management Service (AWS KMS)
Replicate SSE-KMS and DSSE-KMS encrypted objects.

Destination storage class
Amazon S3 offers a range of storage classes designed for different use cases. Learn more ⧉ or see Amazon S3 pricing ⧉
☐ Change the storage class for the replicated objects

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Screen 2

Amazon S3 > Buckets > original-tejas18700 > Replication rules

✓ Replication configuration successfully updated   [Create replication job]   ✕
If changes to the configuration aren't displayed, choose the refresh button. Changes apply only to new objects. To replicate existing objects with this configuration, choose **Create replication job**.

Replication configuration settings   [Create replication job] [Edit]
Configuration settings affect all replication rules in the bucket.

Source bucket
original-tejas18700

Source Region
Asia Pacific (Mumbai) ap-south-1

Replicate existing objects?   ✕

You can enable a one-time Batch Operations job from this replication configuration to replicate objects that already exist in the bucket and to synchronize the source and destination buckets. Learn more ⧉ or see pricing ⧉

Existing objects
● No, do not replicate existing objects.
○ Yes, replicate existing objects.

[Cancel] [Submit]

Replication rules (2)   [Delete] [Actions ▼] [Create replication rule]
Use replication rules to define options you want Amazon S3 to ap... another storage class, and more. Learn more ⧉

< 1 > ⚙

Replication rule name ▼	Status ▼	Destination bucket ▼	Destination Region ▼	Priority ▼	Scope ▼	Storage class ▼	Replica owner ▼	Replication Time Control ▼	KMS-encrypted objects (SSE-KMS or DSSE-KMS) ▼	Replica modificati on sync ▼

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Screen 3

Amazon S3 > Buckets > original-tejas18700 > Replication rules

✓ Replication configuration successfully updated   [Create replication job]   ✕
If changes to the configuration aren't displayed, choose the refresh button. Changes apply only to new objects. To replicate existing objects with this configuration, choose **Create replication job**.

Source Region
Asia Pacific (Mumbai) ap-south-1

Replication rules (2)   ↻ [View details] [Edit rule] [Delete] [Actions ▼] [Create replication rule]
Use replication rules to define options you want Amazon S3 to apply during replication such as server-side encryption, replica ownership, transitioning replicas to another storage class, and more. Learn more ⧉

< 1 > ⚙

Replication rule name ▼	Status ▼	Destination bucket ▼	Destination Region ▼	Priority ▼	Scope ▼	Storage class ▼	Replica owner ▼	Replication Time Control ▼	KMS-encrypted objects (SSE-KMS or DSSE-KMS) ▼	Replica modificati on sync ▼
rep2	✓ Enabled	s3://repbuck404	Asia Pacific (Singapore) ap-southeast-1	1	Prefix: rep2	Same as source	Same as source	Disabled	Do not replicate	Disabled
replica-demo	✓ Enabled	s3://replica-tejas18700	Asia Pacific (Singapore) ap-southeast-1	0	Prefix: replica-original	Same as source	Same as source	Disabled	Do not replicate	Disabled

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