

CROSS-REGION REPLICATION OF S3 BUCKETS

-BY

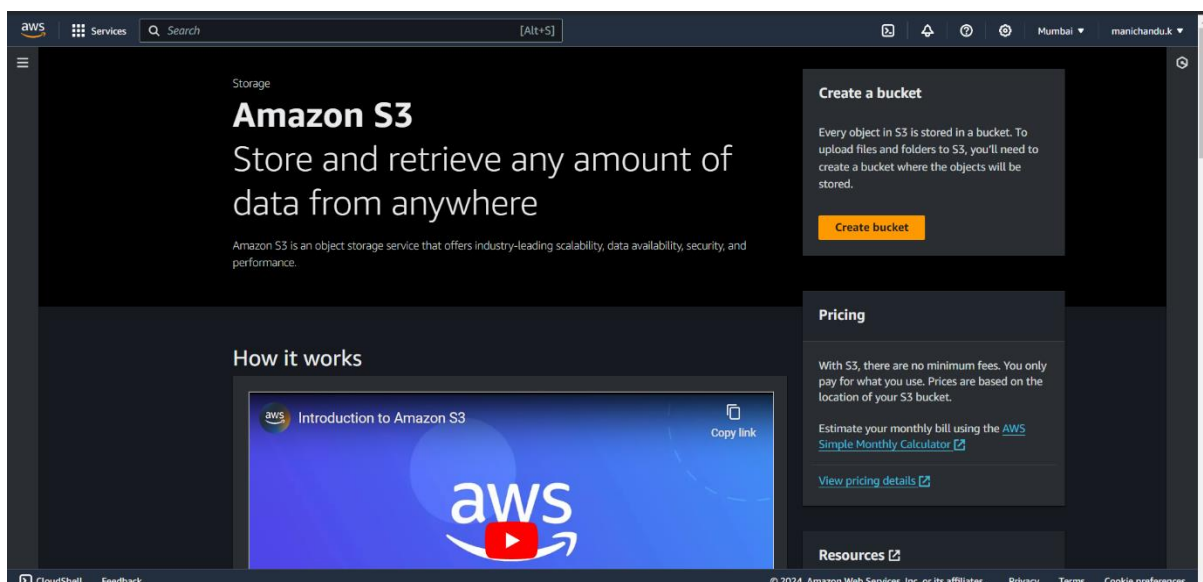
K.MANICHANDU

S3 bucket :

- Amazon S3 is a simple storage service with limitless storage.
- It is a pay-as-you-go service.
- It is best known for its data performance, durability, flexible storage options, security, compliance, and auditing.
- In this documentation we will learn how to replicate files from one bucket in one region to another bucket located in another region.

Cross-region replication :

- First, we have to create two buckets in two regions.
- Log into your Amazon console. Go to the S3 feature.



- Click on Create a bucket and give a name for the bucket. The name should be unique as no two buckets will not have the same name.
- Keep the other options default except versioning.
- Here we should enable versioning to ensure cross-region replication as replication will not be enabled without versioning.

Amazon S3 > Buckets > Create bucket

Create bucket Info

Buckets are containers for data stored in S3.

General configuration

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

Bucket name Info
manichandu-source-bucket

Bucket name must be unique within the global namespace and follow the bucket naming rules. [See rules for bucket naming](#)

Copy settings from existing bucket - optional
Only the bucket settings in the following configuration are copied.

Format: s3://bucket/prefix

Object Ownership Info

Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

☒ ACLs disabled (recommended)
All objects in this bucket are owned by this account.

☐ ACLs enabled
Objects in this bucket can be owned by other AWS

Bucket Versioning

Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. [Learn more](#)

Bucket Versioning
☐ Disable
☒ Enable

Tags - optional (0)

You can use bucket tags to track storage costs and organize buckets. [Learn more](#)

No tags associated with this bucket.

Default encryption Info

Server-side encryption is automatically applied to new objects stored in this bucket.

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Encryption type Info
☒ Server-side encryption with Amazon S3 managed keys (SSE-S3)
☐ Server-side encryption with AWS Key Management Service keys (SSE-KMS)
☐ Dual-layer server-side encryption with AWS Key Management Service keys (DSSE-KMS)
Secure your objects with two separate layers of encryption. For details on pricing, see DSSE-KMS pricing on the Storage tab of the [Amazon S3 pricing page](#).

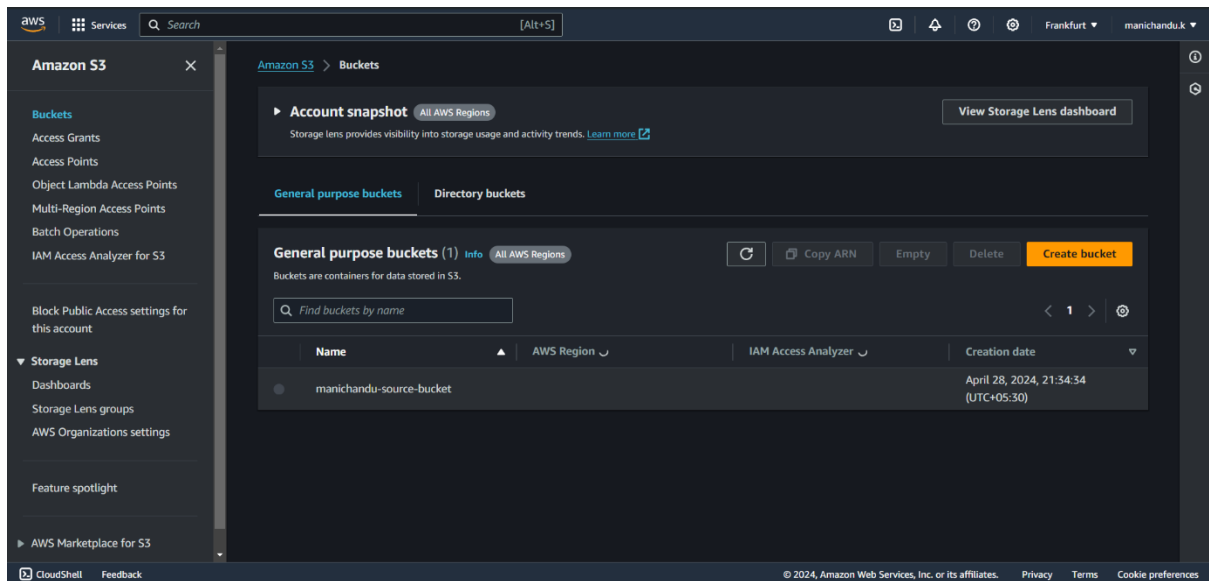
Bucket Key
Using an S3 Bucket Key for SSE-KMS reduces encryption costs by lowering calls to AWS KMS. S3 Bucket Keys aren't supported for DSSE-KMS. [Learn more](#)

☐ Disable
☒ Enable

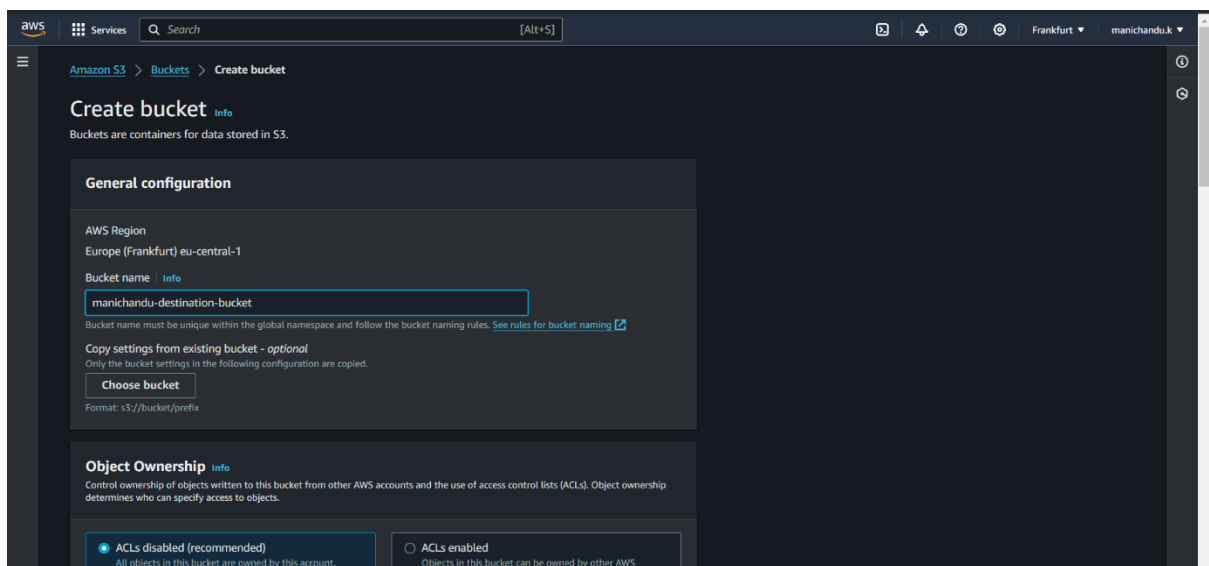
Advanced settings

Info After creating the bucket, you can upload files and folders to the bucket, and configure additional bucket settings.

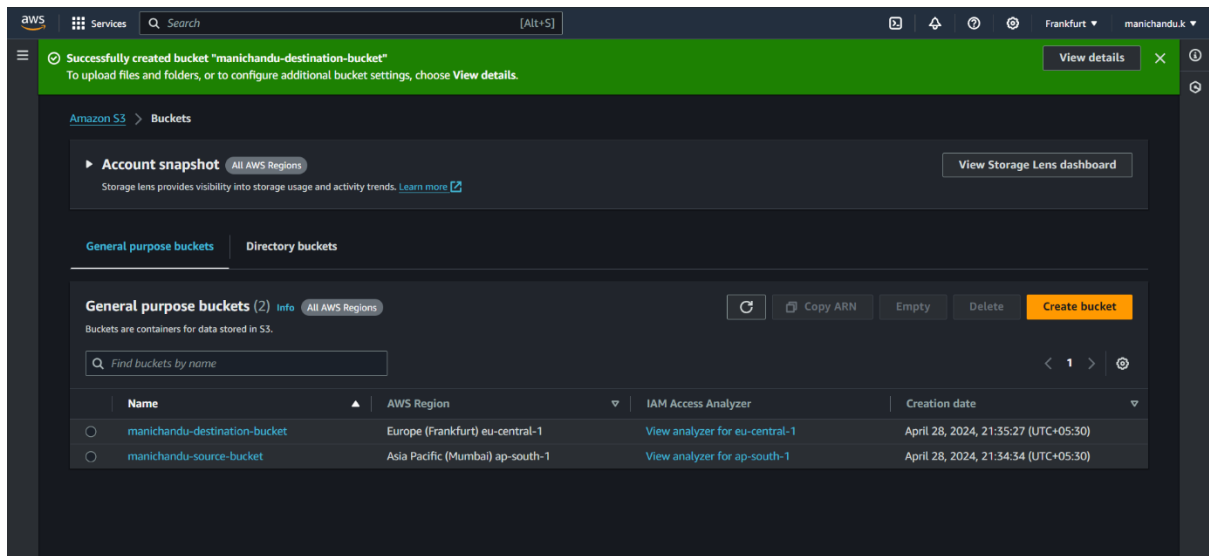
- Click on create bucket and your bucket will be created.



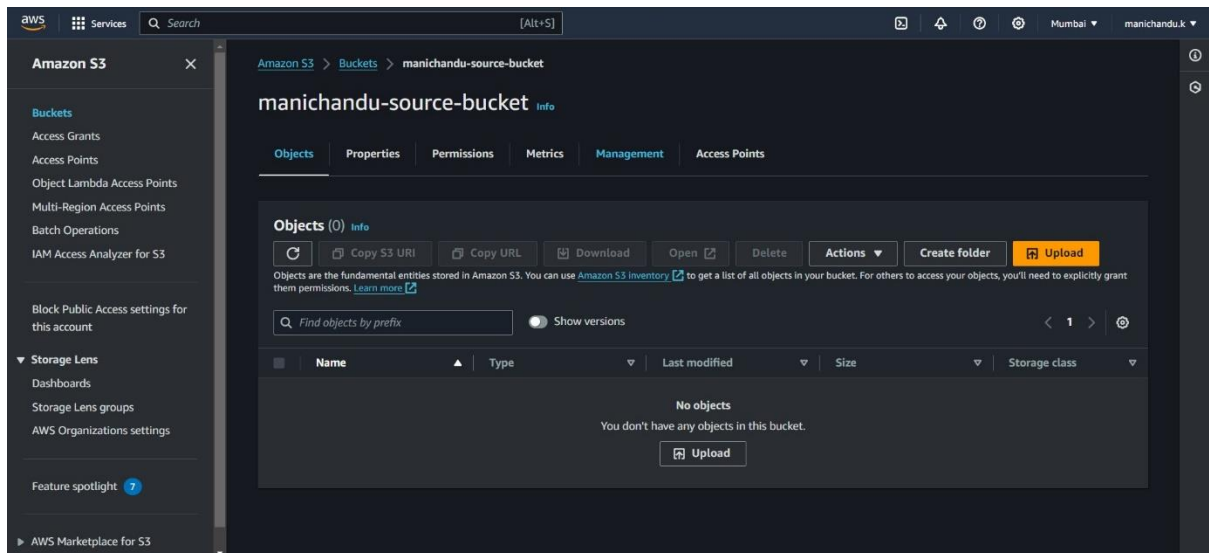
- Now, move to another region, here I selected Frankfurt which will be in Europe.
- Create an S3 bucket in the Frankfurt region enabling bucket versioning.



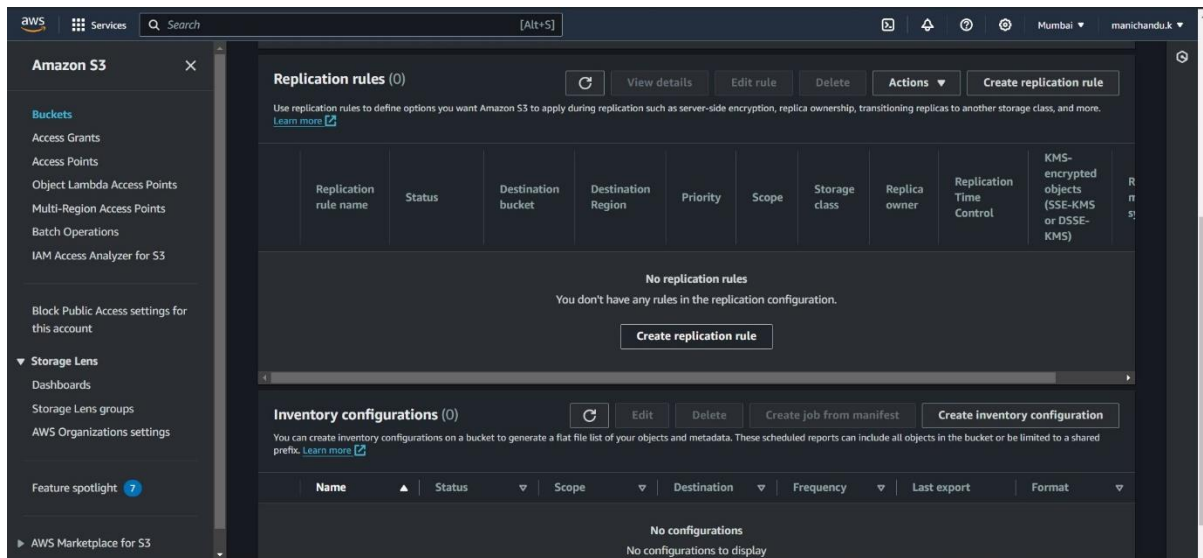
- We have created one bucket each in two regions.



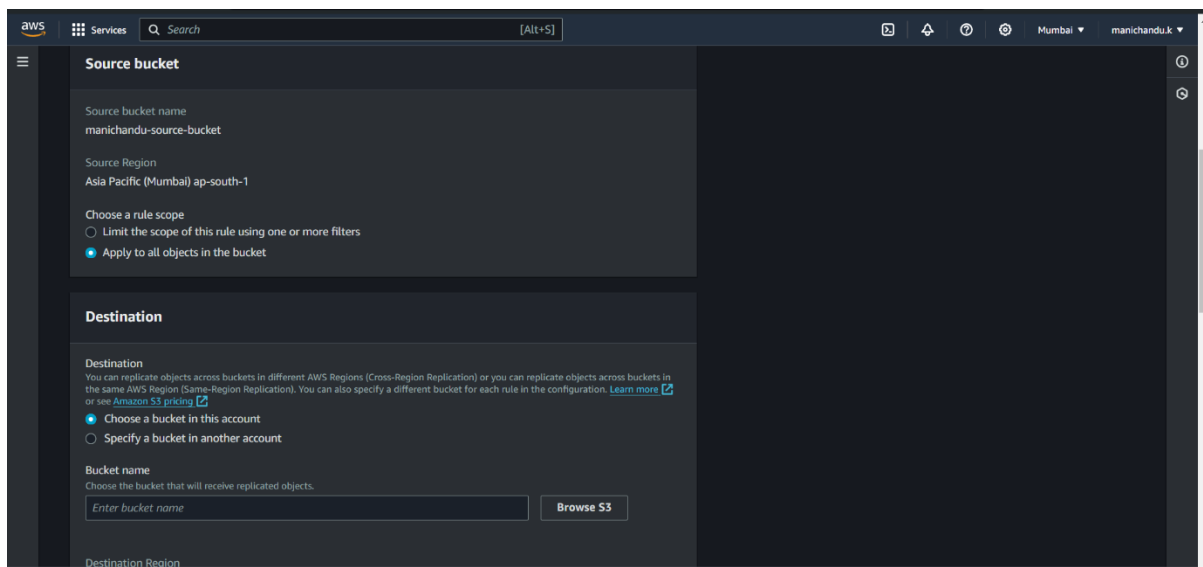
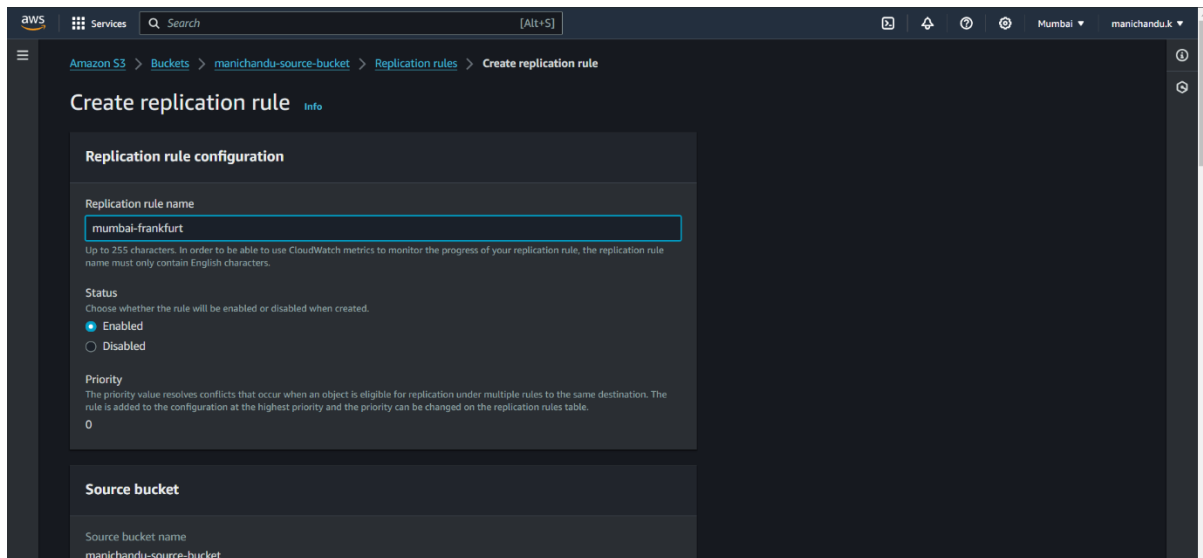
- Go to your source bucket and click on management.



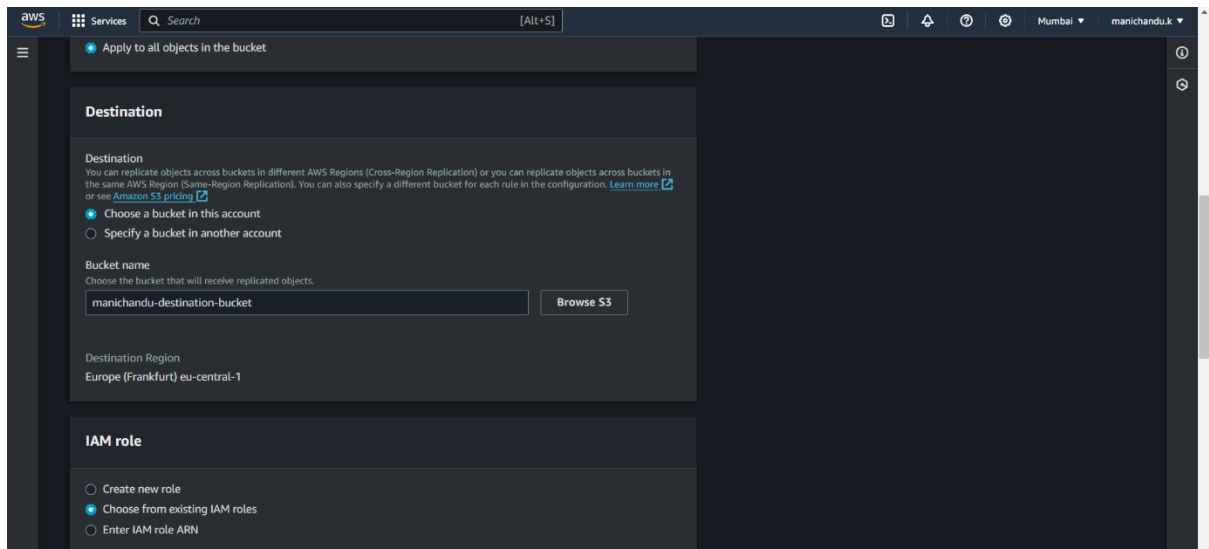
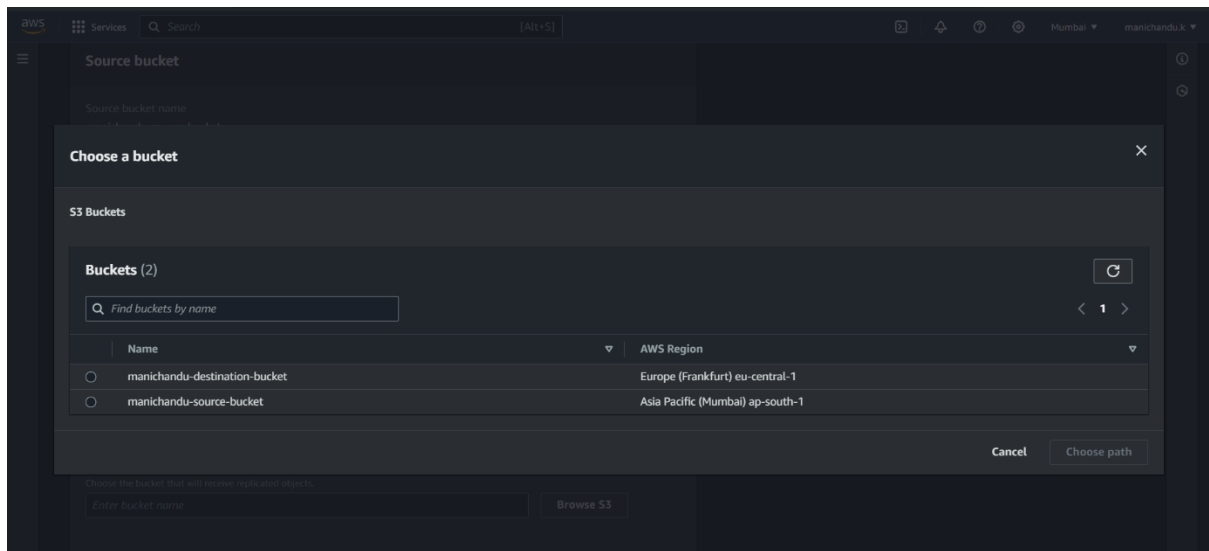
- Click on create replication rules.



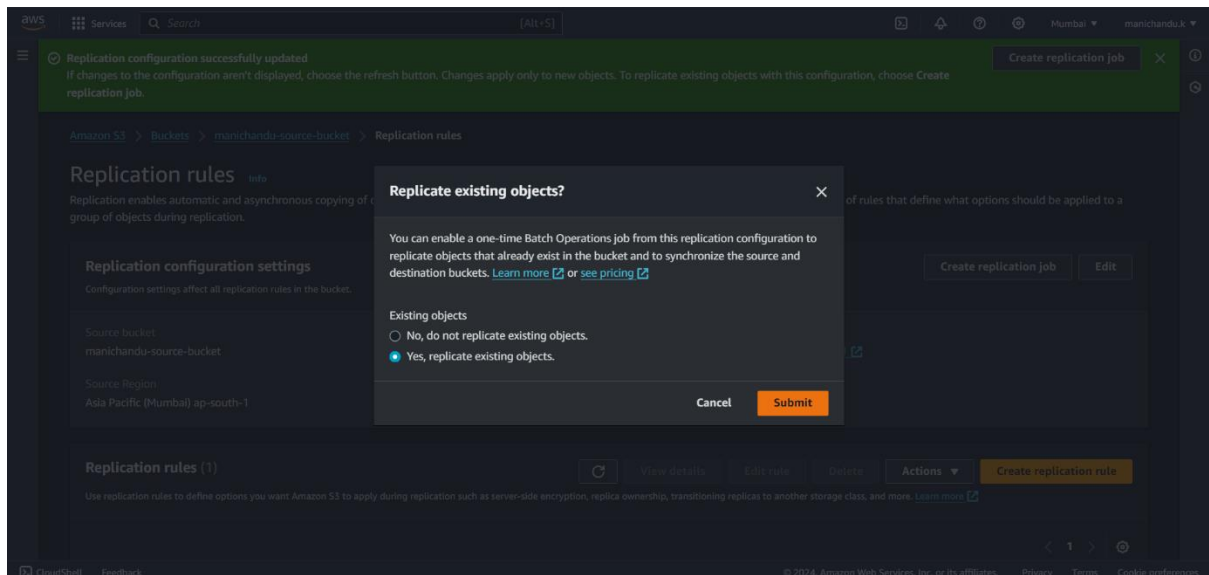
- Give a name for the replication rule



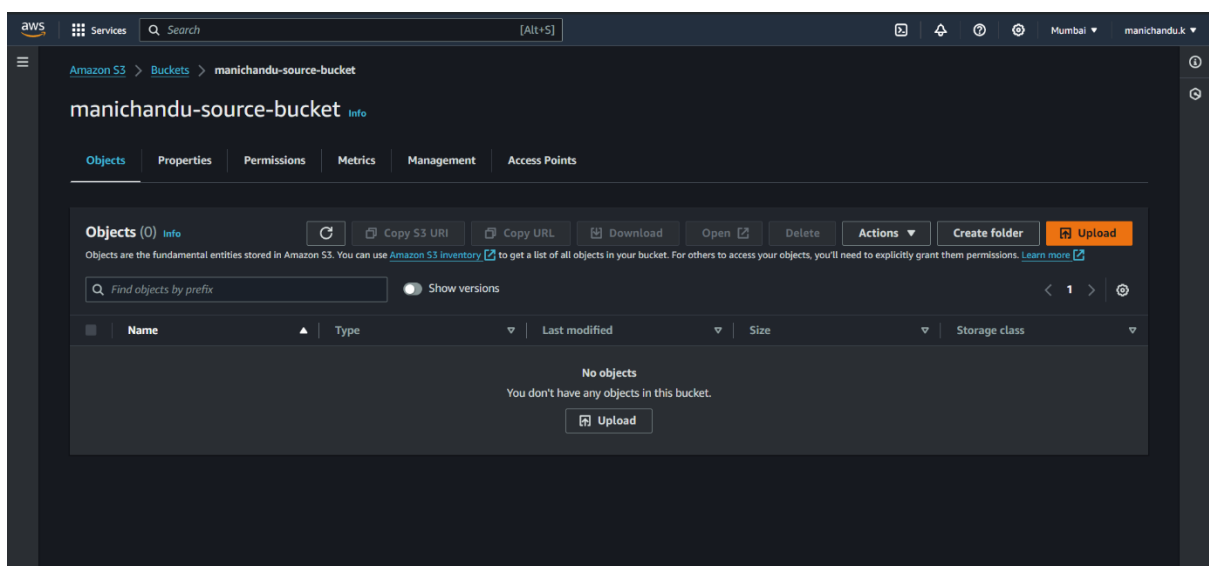
- When selecting an option for Choose a rule scope, select Apply to all objects or you can put a tag where a selected folder or files only will be replicated to the other bucket.
- Now choose the destination bucket.



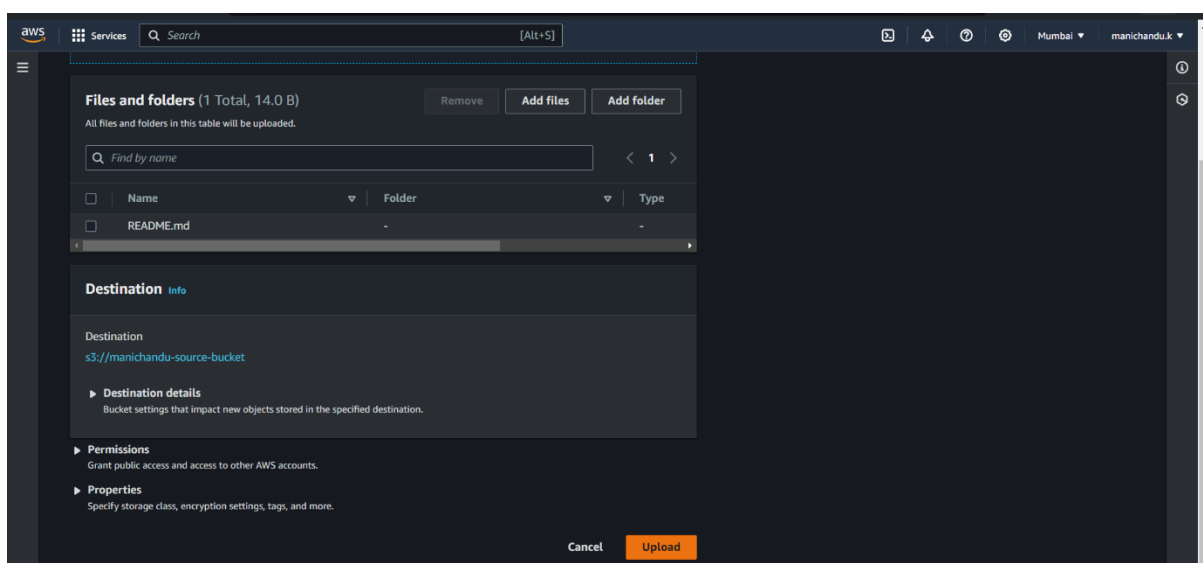
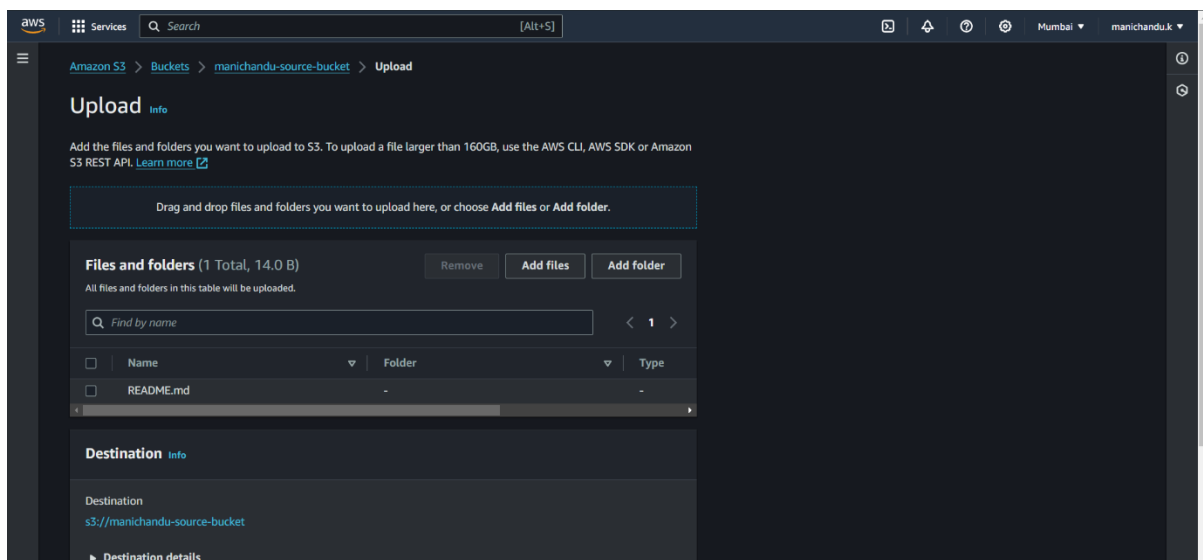
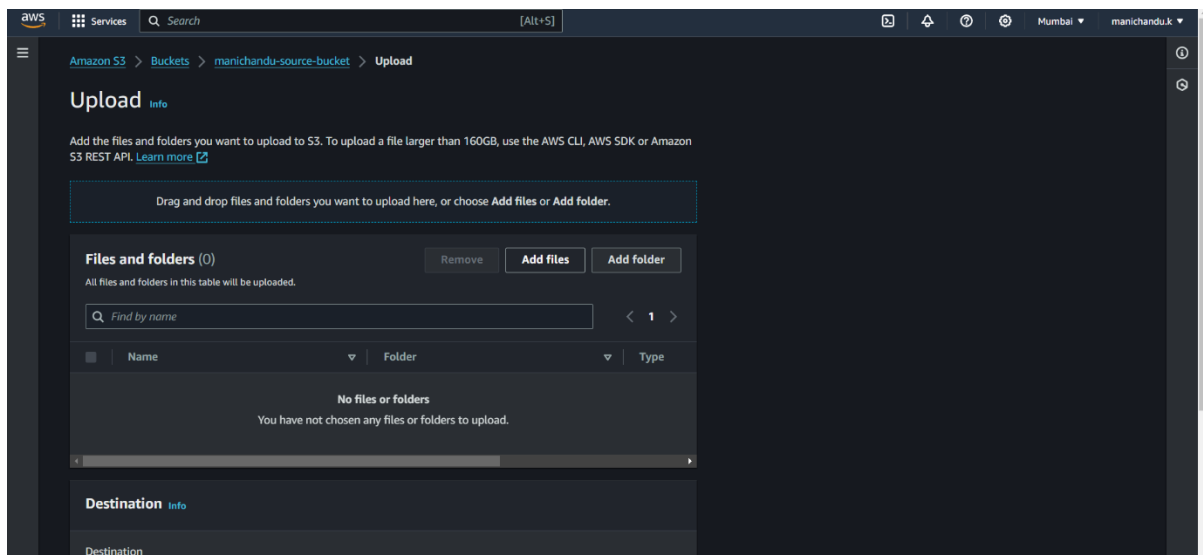
- When choosing an IAM role, click on create new role.
- Click on create and we will get a pop-up like this.



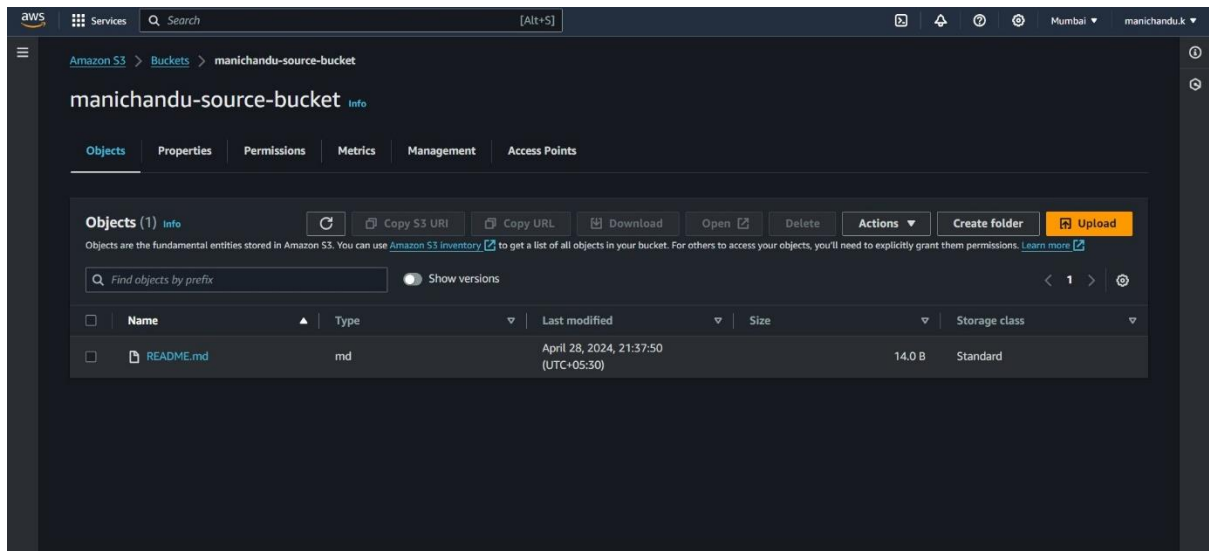
- If you have objects already in your bucket and want them to be replicated, select ‘yes, replicate existing objects.’
- Now go to the source bucket and upload a file in the bucket.



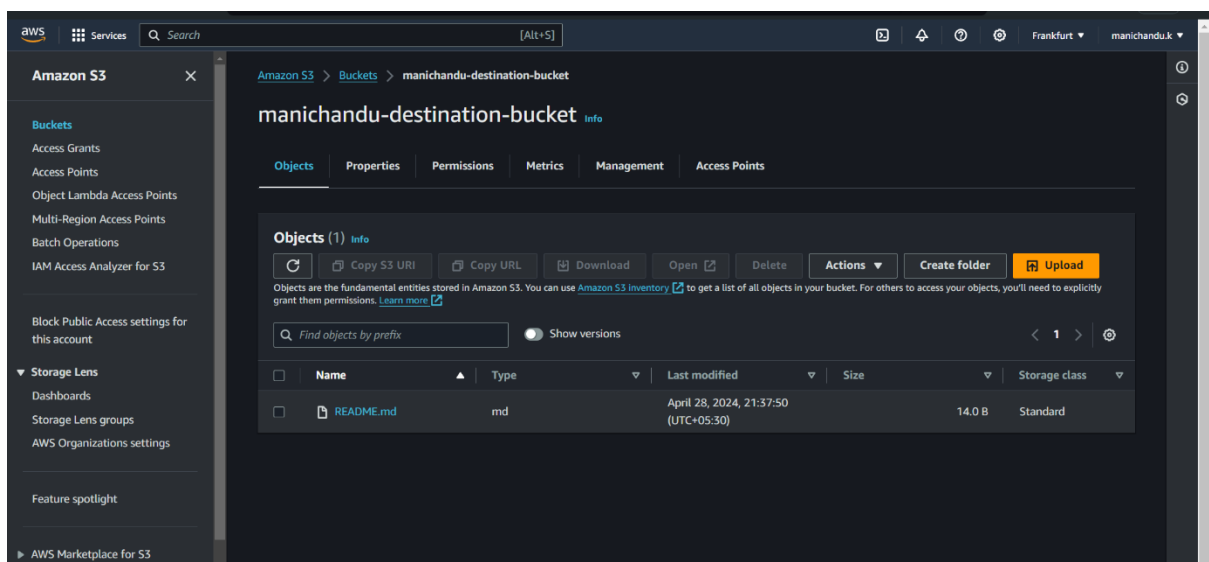
- Click on upload, and click on add files.



- Click on upload.



- After a while, we will see the replicated file in the destination bucket.



- Cross-region replication of S3 buckets is successfully done.