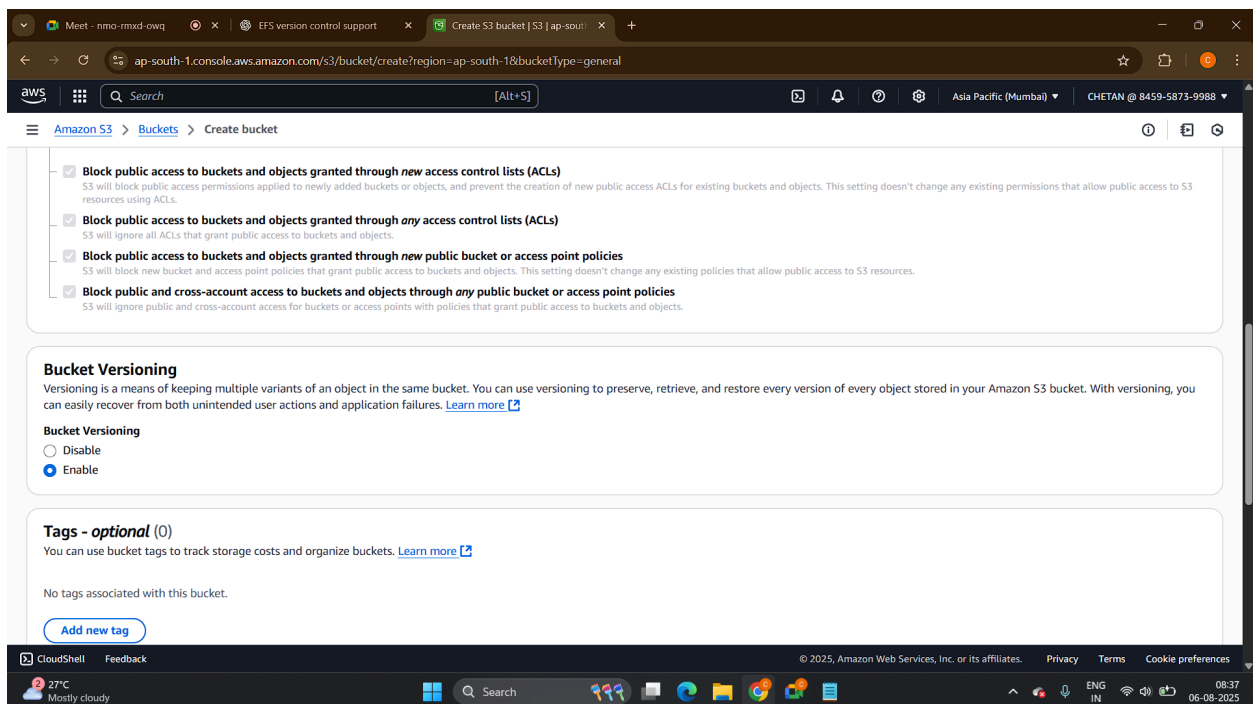
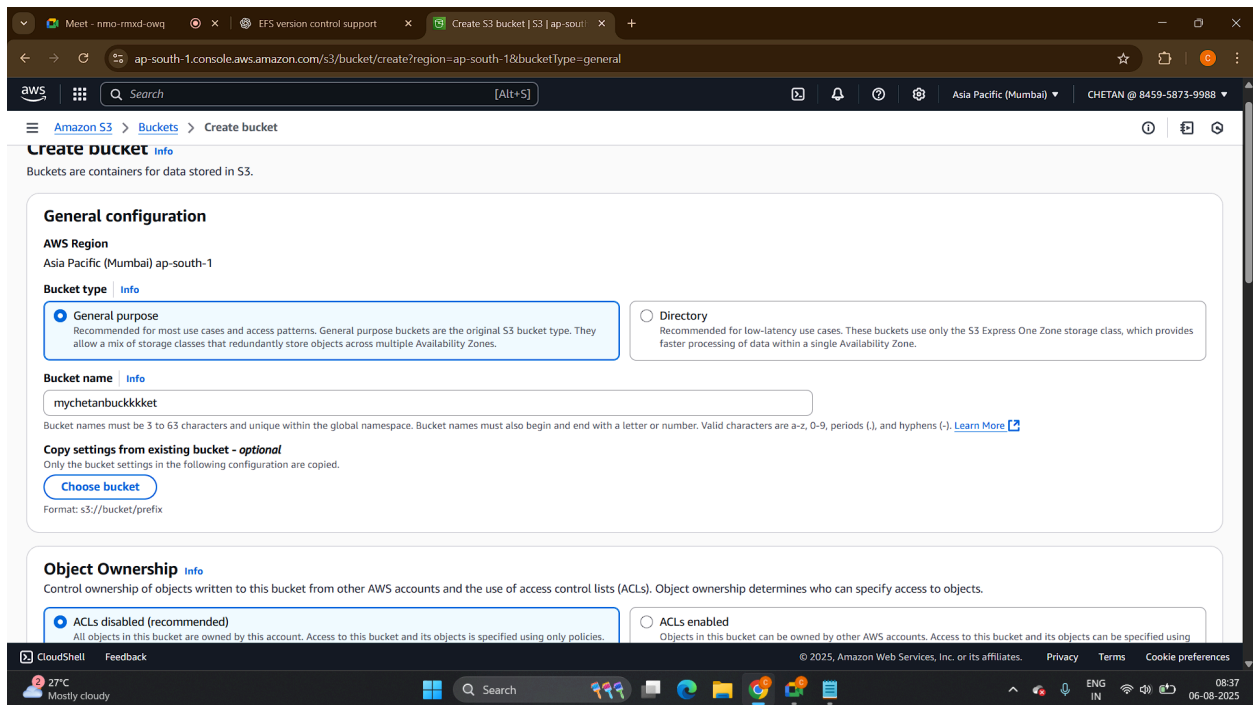


# Cycle 08 AWS Homework

## Part A: S3 Versioning and Behavior Testing

### Steps:

1. Create an S3 bucket.
2. Upload a sample file (e.g., `test.txt` ).
3. Enable *Versioning* in the **Bucket Properties** tab.
4. Overwrite the file with a new version.
  - Observe version IDs under "Show Versions".
  - The original file has a null version ID.
  - New uploads get a unique version ID.
5. Test permissions:
  - Make only the latest version public.
  - Older versions remain private unless explicitly granted access.



mychetanbuckkkket info

Objects (1)

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	Last modified	Size	Storage class
Number.txt	txt	August 6, 2025, 08:39:36 (UTC+05:30)	7.0 B	Standard

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Light rain in the afternoon

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Successfully edited Block Public Access settings for this bucket.

Permissions overview

Access finding

Access findings are provided by IAM external access analyzers. Learn more about [How IAM analyzer findings work](#)

View analyzer for ap-south-1

Block public access (bucket settings)

Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to all your S3 buckets and objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to your buckets or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more](#)

Block all public access

Off

Individual Block Public Access settings for this bucket

Bucket policy

The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. [Learn more](#)

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Rainy days ahead 27°C

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Meet - nmo-rmad-owq x EFS version control support x Edit Object Ownership - S3 buc x mychetanbuckkket - S3 buc x +

ap-south-1.console.aws.amazon.com/s3/bucket/mychetanbuckkket/property/oo/edit?region=ap-south-1&bucketType=general

aws Search [Alt+S]

Amazon S3 > Buckets > mychetanbuckkket > Edit Object Ownership

### Edit Object Ownership [Info](#)

**Object Ownership**  
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. Access to this bucket and its objects is specified using only policies.

☒ ACLs enabled  
Objects in this bucket can be owned by other AWS accounts. Access to this bucket and its objects can be specified using ACLs.

⚠ We recommend disabling ACLs, unless you need to control access for each object individually or to have the object writer own the data they upload. Using a bucket policy instead of ACLs to share data with users outside of your account simplifies permissions management and auditing.

⚠ **Enabling ACLs turns off the bucket owner enforced setting for Object Ownership**  
Once the bucket owner enforced setting is turned off, access control lists (ACLs) and their associated permissions are restored. Access to objects that you do not own will be based on ACLs and not the bucket policy.  
☒ I acknowledge that ACLs will be restored.

**Object Ownership**

☒ Bucket owner preferred  
If new objects written to this bucket specify the bucket-owner-full-control canned ACL, they are owned by the bucket owner. Otherwise, they are owned by the object writer.

☐ Object writer  
The object writer remains the object owner.

📘 If you want to enforce object ownership for new objects only, your bucket policy must specify that the bucket-owner-full-control canned ACL is required for object uploads. [Learn more](#)

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Rainy days ahead 27°C

Meet - nmo-rmad-owq x EFS version control support x Make objects public - S3 buc x mychetanbuckkket - S3 buc x +

ap-south-1.console.aws.amazon.com/s3/buckets/mychetanbuckkket/object/edit\_public\_read\_access?region=ap-south-1&bucketType=general&showversions=false

aws Search [Alt+S]

Amazon S3 > Buckets > mychetanbuckkket > Make public

### Make public [Info](#)

The make public action enables public read access in the object access control list (ACL) settings. [Learn more](#)

⚠ When public read access is enabled and not blocked by Block Public Access settings, anyone in the world can access the specified objects.

**Specified objects**

Find objects by name

Name	Type	Last modified	Size
<a href="#">Number.txt</a>	txt	August 6, 2025, 08:40:22 (UTC+05:30)	7.0 B

Cancel **Make public**

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3 cm of rain Friday

Browser tabs: Meet - nmo-rmad-owq, EFS version control support, mychetanbuckkket - S3 buck..., mychetanbuckkket - S3 buck..., mychetanbuckkket.s3.ap-sou...

URL: ap-south-1.console.aws.amazon.com/s3/buckets/mychetanbuckkket?region=ap-south-1&buckettype=general&tab=objects&showversions=true

Search: [Alt+S]

Navigation: Amazon S3 > Buckets > mychetanbuckkket

### mychetanbuckkket info

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

**Objects (2)** 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 > Settings

<input type="checkbox"/>	Name	Type	Version ID	Last modified	Size	Storage class
<input type="checkbox"/>	<a href="#">Number.txt</a>	txt	ZTOqrnehffQHbsWf6Hxz0UngD7ei8WXq	August 6, 2025, 08:40:22 (UTC+05:30)	7.0 B	Standard
<input type="checkbox"/>	<a href="#">Number.txt</a>	txt	2tpdF56afaPBP4Tod.8m9VYv_r6Jgp0	August 6, 2025, 08:39:36 (UTC+05:30)	7.0 B	Standard

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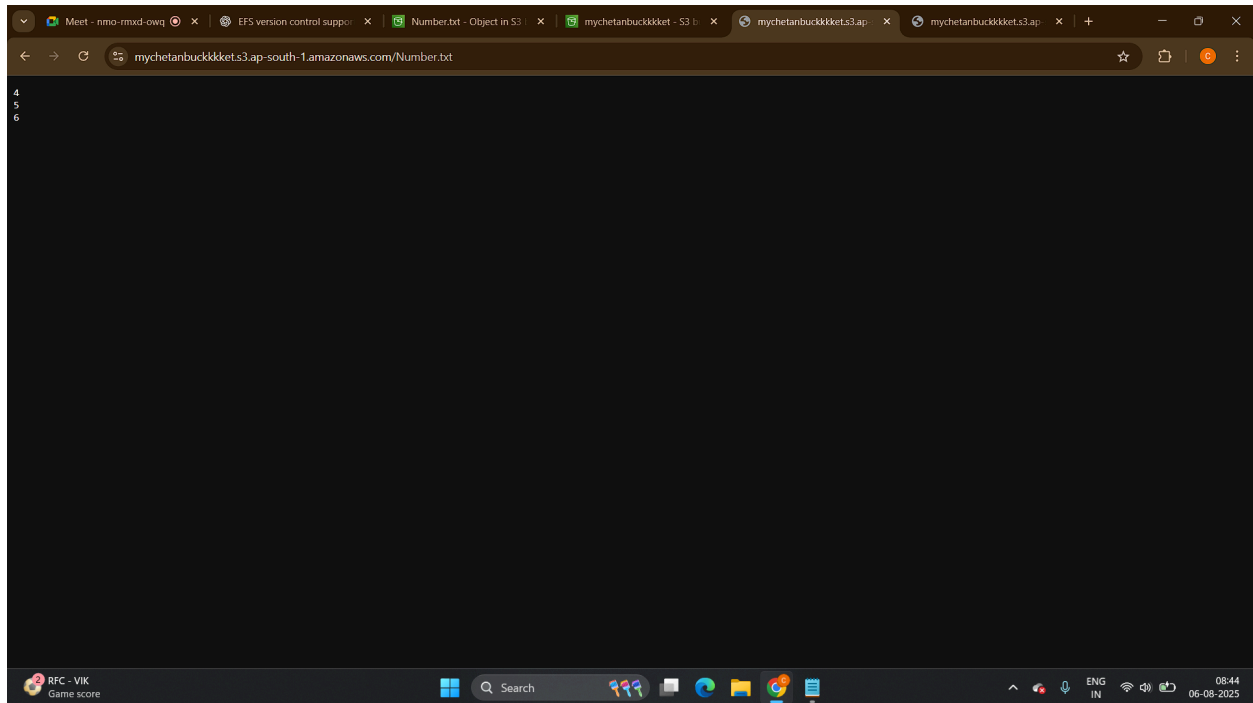
2 cm of rain Friday

Browser tabs: Meet - nmo-rmad-owq, EFS version control support, Number.txt - Object in S3, mychetanbuckkket - S3, mychetanbuckkket.s3.ap, mychetanbuckkket.s3.ap

URL: mychetanbuckkket.s3.ap-south-1.amazonaws.com/Number.txt?versionId=2tpdF56afaPBP4Tod.8m9VYv\_r6Jgp0

```
1
2
3
```

RFC - VIK Game score



## Part B: Host a Static Website on S3

### Steps:

1. Download a free HTML template (example: HTML5 UP).
2. Unzip and upload all files to the S3 bucket (e.g., `index.html`, CSS, JS, images).
3. Enable **Static Website Hosting**:
  - Go to *Properties* → *Static Website Hosting*.
  - Enable hosting and set:
    - Index Document: `index.html`
    - Error Document: `index.html`
4. Set Bucket Permissions:
  - Go to *Permissions* → *Bucket Policy* → *Edit*
  - Paste a public read access policy, replace the ARN with your bucket's ARN
  - Ensure the path ends with `/*`
5. Copy the S3 Website Endpoint URL and open it in a browser to test.

Upload succeeded  
For more information, see the Files and folders table.

### Files and folders (78 total, 6.5 MB)

Find by name

Name	Folder	Type	Size	Status	Error
<a href="#">slick.svg</a>	assets/web...	image/svg...	2.1 KB	Succeeded	-
<a href="#">slick.ttf</a>	assets/web...	-	1.8 KB	Succeeded	-
<a href="#">slick.woff</a>	assets/web...	application...	1.3 KB	Succeeded	-
<a href="#">shop_10.jpg</a>	assets/img/	image/jpeg	155.8 KB	Succeeded	-
<a href="#">shop_11.jpg</a>	assets/img/	image/jpeg	138.9 KB	Succeeded	-
<a href="#">bootstrap.bu...</a>	assets/js/	text/javasc...	78.9 KB	Succeeded	-
<a href="#">custom.js</a>	assets/js/	text/javasc...	0 B	Succeeded	-
<a href="#">jquery-1.11.0...</a>	assets/js/	text/javasc...	94.1 KB	Succeeded	-
<a href="#">jquery-migrat...</a>	assets/js/	text/javasc...	7.0 KB	Succeeded	-
<a href="#">slick.min.js</a>	assets/js/	text/javasc...	41.9 KB	Succeeded	-

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27°C Mostly cloudy

Search

ENG IN 09:05 06-08-2025

Amazon S3 Buckets mychetanbuckkket Edit static website hosting

### Static website hosting

Use this bucket to host a website or redirect requests. [Learn more](#)

**Static website hosting**

☐ Disable

☒ Enable

**Hosting type**

☒ Host a static website  
Use the bucket endpoint as the web address. [Learn more](#)

☐ Redirect requests for an object  
Redirect requests to another bucket or domain. [Learn more](#)

For your customers to access content at the website endpoint, you must make all your content publicly readable. To do so, you can edit the S3 Block Public Access settings for the bucket. For more information, see [Using Amazon S3 Block Public Access](#)

**Index document**  
Specify the home or default page of the website.

index.html

**Error document - optional**  
This is returned when an error occurs.

index.html

**Redirection rules - optional**  
Redirection rules, written in JSON, automatically redirect webpage requests for specific content. [Learn more](#)

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BSE midcap -0.16%

Search

ENG IN 09:14 06-08-2025

Google Meet x Free Template 559 Z x Setting permissions x Zay Zay Shop eCommer x Edit bucket policy x EFS version control x transit is like journey x +

ap-south-1.console.aws.amazon.com/s3/bucket/mychetanbuckkket/property/policy/edit?region=ap-south-1&bucketType=general

Amazon S3 > Buckets > mychetanbuckkket > Edit bucket policy

### Bucket policy

The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. [Learn more](#)

**Policy examples** [Policy generator](#)

**Bucket ARN**  
arn:aws:s3:::mychetanbuckkket

**Policy**

```
1 {
2   "Version": "2012-10-17",
3   "Statement": [
4     {
5       "Sid": "PublicReadGetObject",
6       "Effect": "Allow",
7       "Principal": "*",
8       "Action": [
9         "s3:GetObject"
10      ],
11      "Resource": [
12        "arn:aws:s3:::mychetanbuckkket/*"
13      ]
14    }
15  ]
16 }
17
```

**Edit statement**

**Select a statement**

Select an existing statement in the policy or add a new statement.

[+ Add new statement](#)

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Watchlist Ideas

Google Meet x Free Template 559 Z x Setting permissions x Zay Zay Shop eCommer x mychetanbuckkket x Zay Zay Shop eCommer x EFS version control x transit is like journey x +

ap-south-1.console.aws.amazon.com/s3/buckets/mychetanbuckkket?region=ap-south-1&bucketType=general&tab=properties

Amazon S3 > Buckets > mychetanbuckkket

### Requester pays

When enabled, the requester pays for requests and data transfer costs, and anonymous access to this bucket is disabled. [Learn more](#)

**Requester pays**  
Disabled [Edit](#)

### Static website hosting

Use this bucket to host a website or redirect requests. [Learn more](#)

**We recommend using AWS Amplify Hosting for static website hosting**  
Deploy a fast, secure, and reliable website quickly with AWS Amplify Hosting. [Learn more about Amplify Hosting](#) or [View your existing Amplify apps](#) [Create Amplify app](#)

**S3 static website hosting**  
Enabled

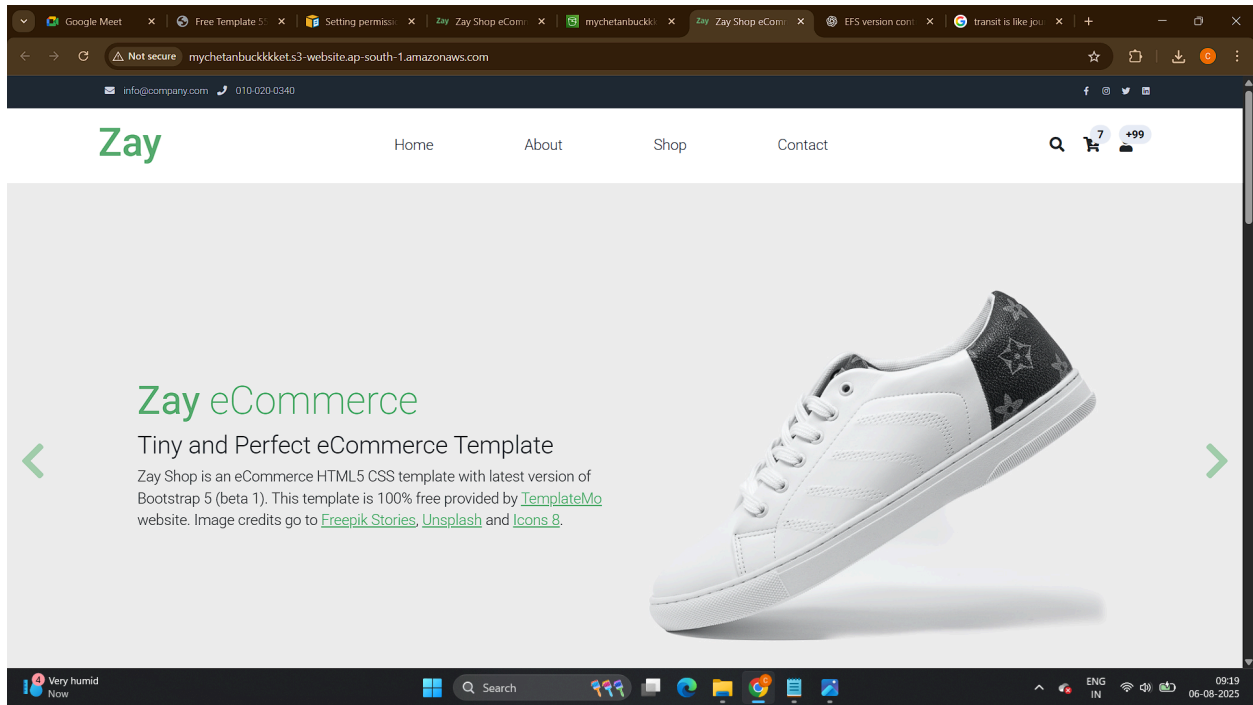
**Hosting type**  
Bucket hosting

**Bucket website endpoint**  
When you configure your bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. [Learn more](#)  
<http://mychetanbuckkket.s3-website-ap-south-1.amazonaws.com>

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Very humid Now





## Task 1: Versioning + Lifecycle Policy

**Objective:** Combine versioning and lifecycle rules to optimize storage costs.

### Steps:

1. Enable versioning on an existing or new bucket.
2. Create a lifecycle rule:
  - Transition non-current versions to **S3 Glacier** after 30 days.
  - Permanently delete non-current versions after 1 year.
3. Test by uploading a file, then uploading a newer version of the same file.
4. After 24 hours, check the **Management tab** to verify lifecycle action.

## Task 2: Cross-Region Replication (CRR)

**Objective:** Set up disaster recovery using CRR with versioning.

### Steps:

1. Create two buckets in different AWS regions (e.g., `bucket-1` in `us-east-1`, `bucket-2` in `ap-south-1`).

2. Enable **versioning** on both buckets.
  3. In the source bucket, go to *Management* → *Replication* and set up CRR to replicate objects to the destination bucket.
  4. Test:
    - Upload files in the source bucket and confirm they appear in the destination.
    - Delete objects and check replication behavior.
- 

### Task 3: Troubleshooting Static Website Errors

**Objective:** Learn how to debug common S3 hosting issues.

**Steps:**

1. Intentionally break the website:
    - Rename `index.html` to `home.html` (or remove it).
  2. Access the website via its S3 endpoint.
    - Expect a **403 Access Denied** or **404 Not Found** error.
  3. Fix:
    - Update the **Index Document** in Static Website Hosting settings.
    - Ensure all CSS, JS, and image paths are correct and files are publicly accessible.
- 

### Compare: S3 Versioning vs. EFS/FSx

Feature	S3 Versioning	EFS	FSx
Supports versioning	Yes	No	No
Object-based	Yes	No	No
File-based storage	No	Yes	Yes

- S3 provides object-level versioning for precise control and recovery.
- EFS and FSx focus on shared file storage but lack native versioning.