Lesson-End Project

Deploying Static Website with S3 Buckets

Project agenda: To demonstrate the implementation of S3 buckets for hosting static website content

Description: As an organizational admin at a tech company, you are tasked with delivering HTML content through a static website. Your current project involves utilizing the capabilities of an S3 bucket for seamless content deployment. The goal is to set up and configure an S3 bucket to host a static website, ensuring your HTML content is easily accessible and efficiently delivered to users. This approach will leverage AWS's scalable infrastructure, providing a reliable and cost-effective solution for hosting static web content.

Tools required: AWS
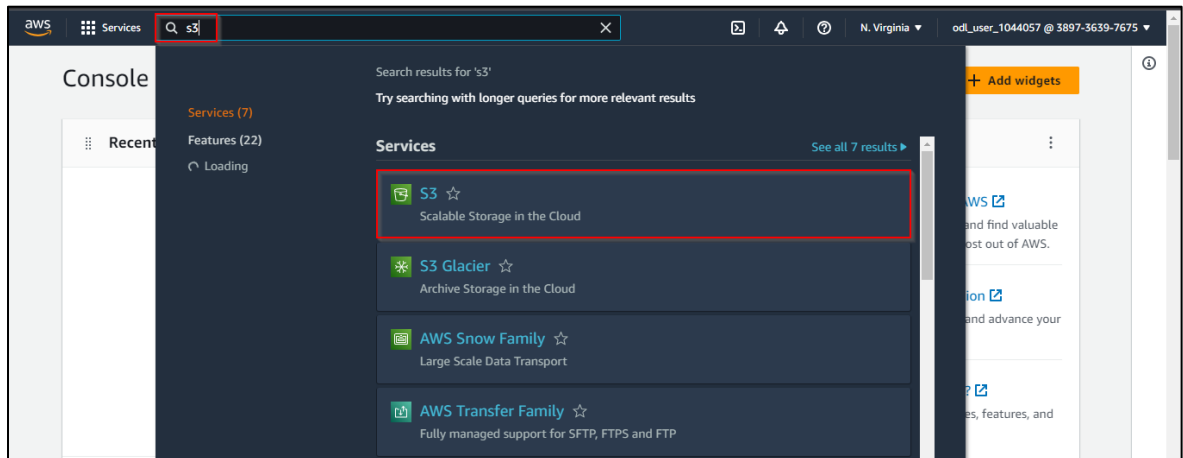
Prerequisites: AWS free-tier account

Expected deliverables: An S3 bucket configured to host the static website content.
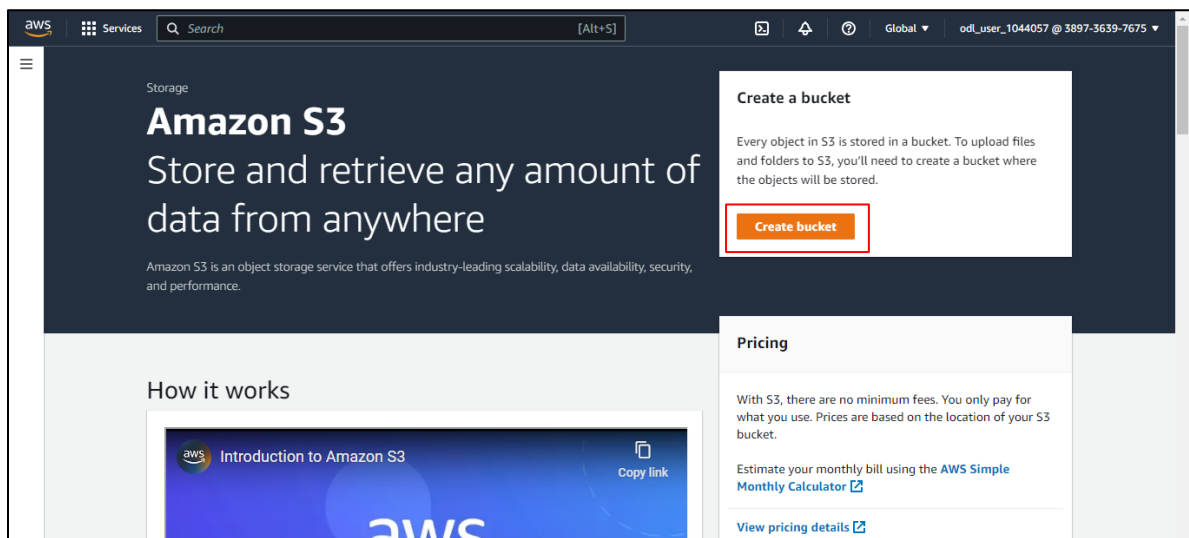
Steps to be followed:
1. Create an S3 bucket
2. Generate a bucket policy
3. Enable static website hosting
4. Test and verify the hosted website content

Step 1: Create an S3 bucket

1.1 Navigate to the AWS Management Console and select the **S3** service

1.2 Click **Create bucket**

1.3 Set the **Bucket name** to **my-webcontent-demo**

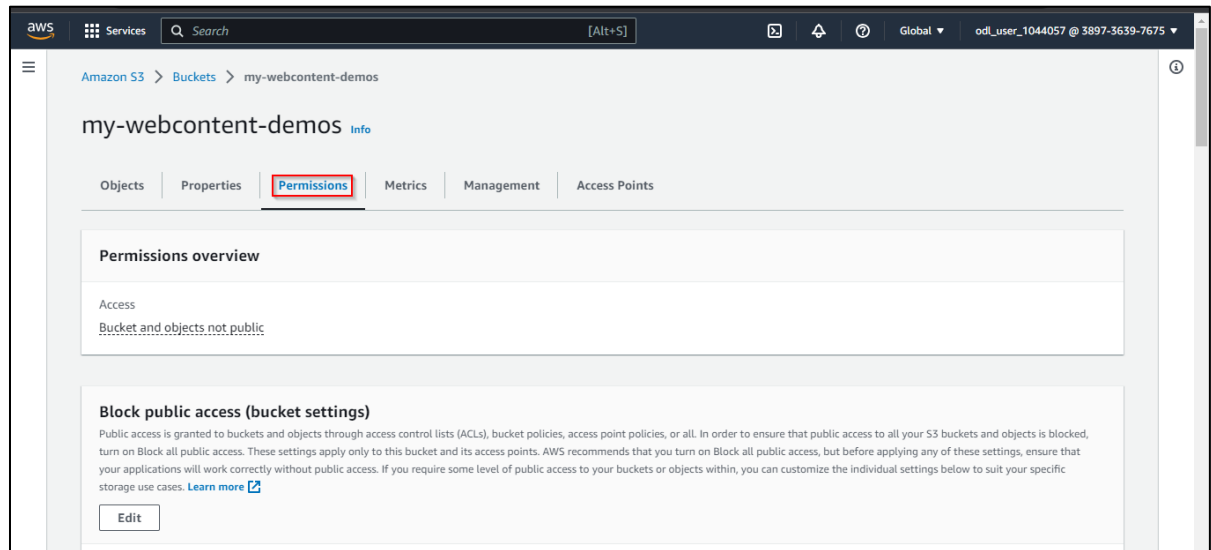### 1.4 Select the **ACLs enabled** and **Bucket owner preferred** options
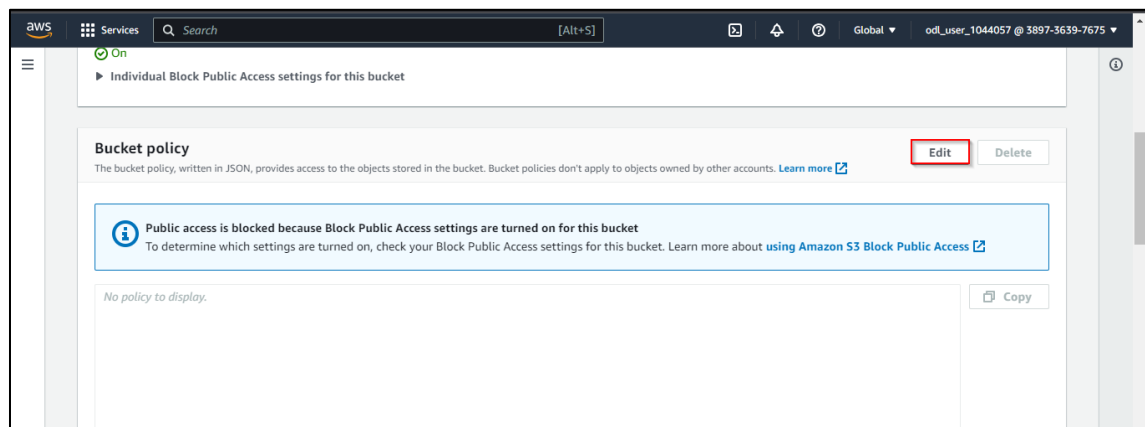
1.5 Click on **Create bucket**
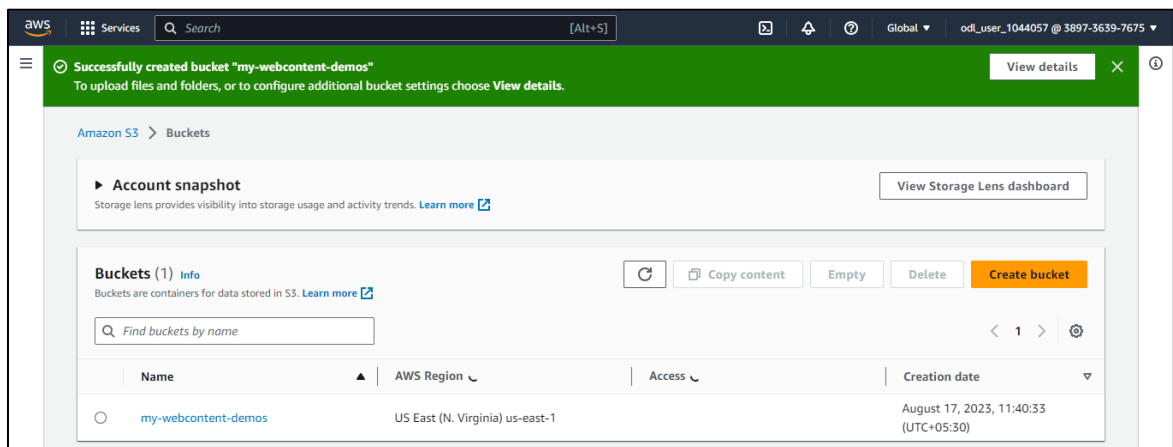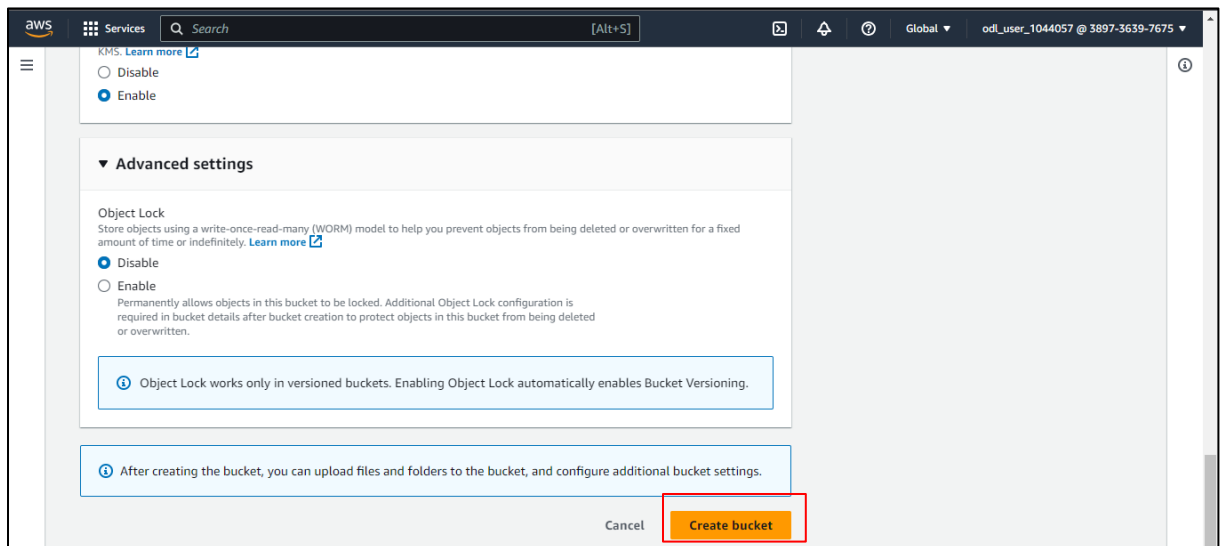
The S3 bucket **my-webcontent-demo** has been successfully created.
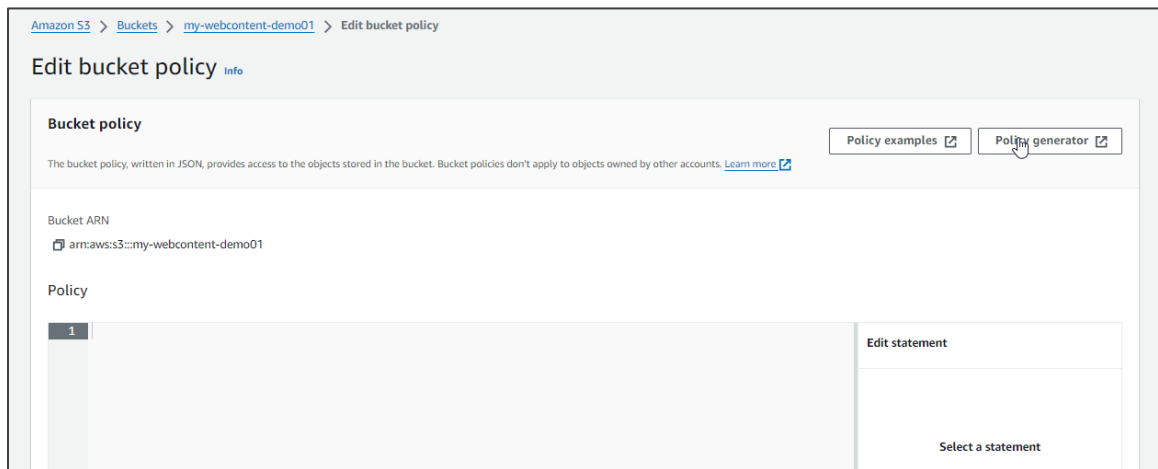
Step 2: Generate a bucket policy

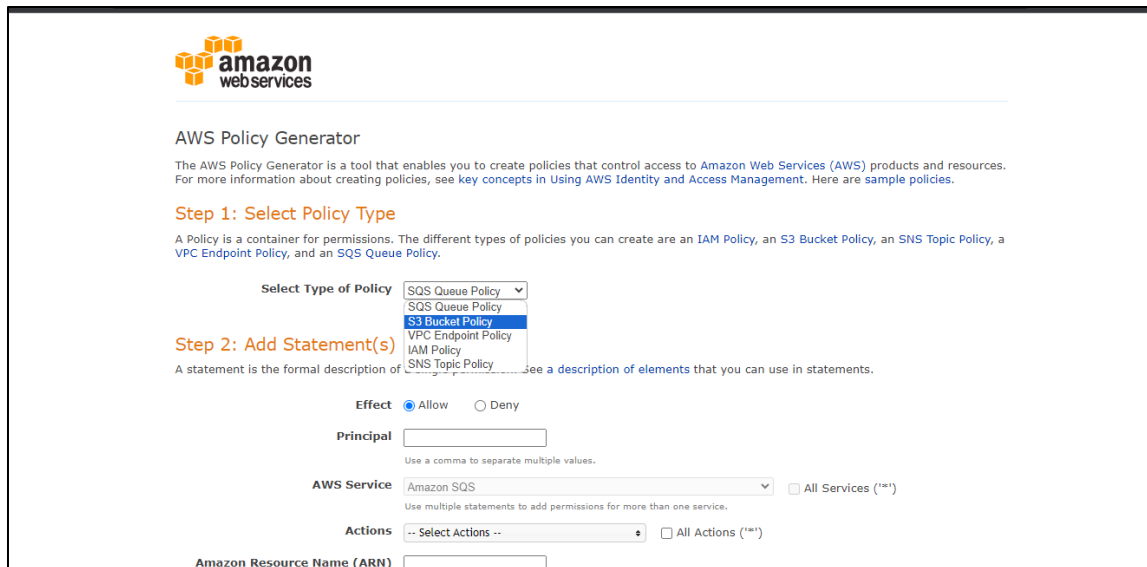2.1 Open the newly created bucket and navigate to the **Permissions** tab

2.2 Scroll down and click **Edit** to modify permissions

2.3 Click on the **Policy generator**

2.4 Select **S3 Bucket Policy** as the policy type

2.5 Set the **Principal value** to ***** and choose **GetObject** under **Actions**

2.6 Navigate to the bucket, click on the **Properties** tab, and copy the **Amazon Resource Name(ARN)**

2.7 Paste the **ARN** in the **Amazon Resource Name (ARN)** field and click **Add Statement**

2.8 Click on the **Generate Policy** button

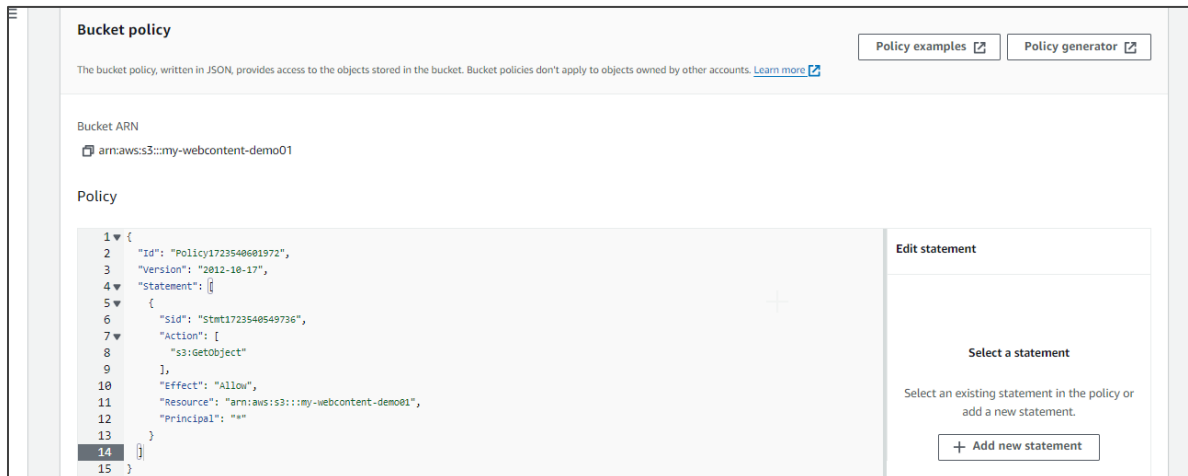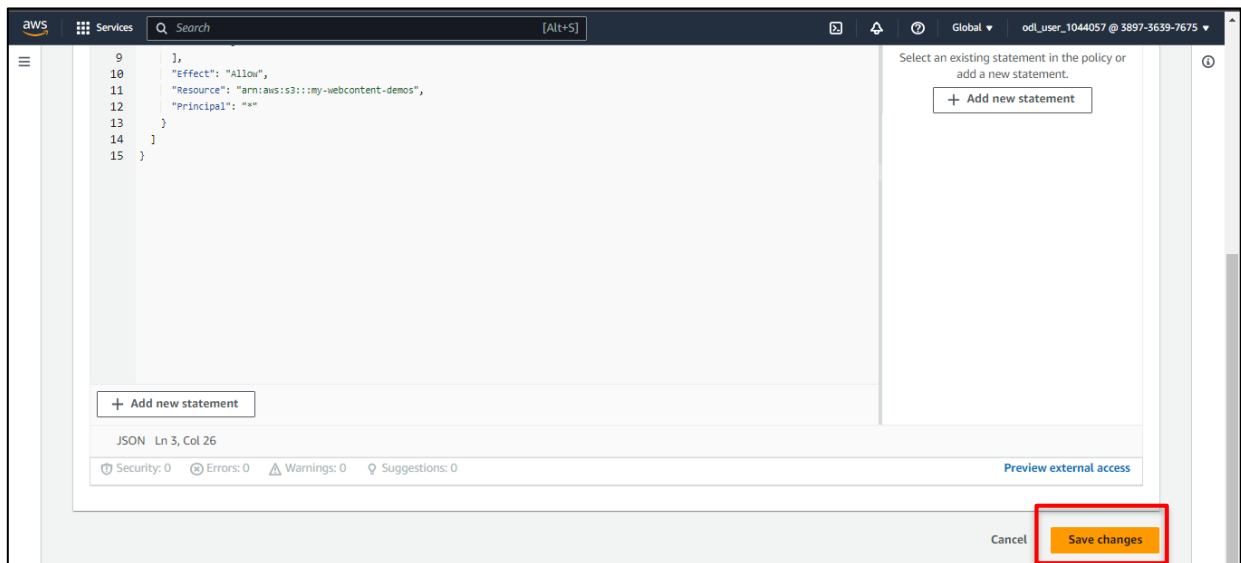The bucket policy has been successfully generated.
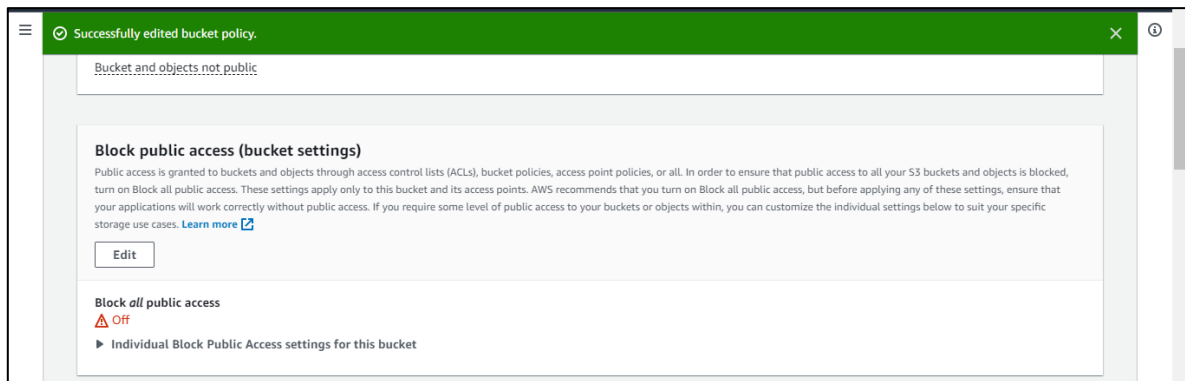
2.9 Copy the generated Policy JSON code
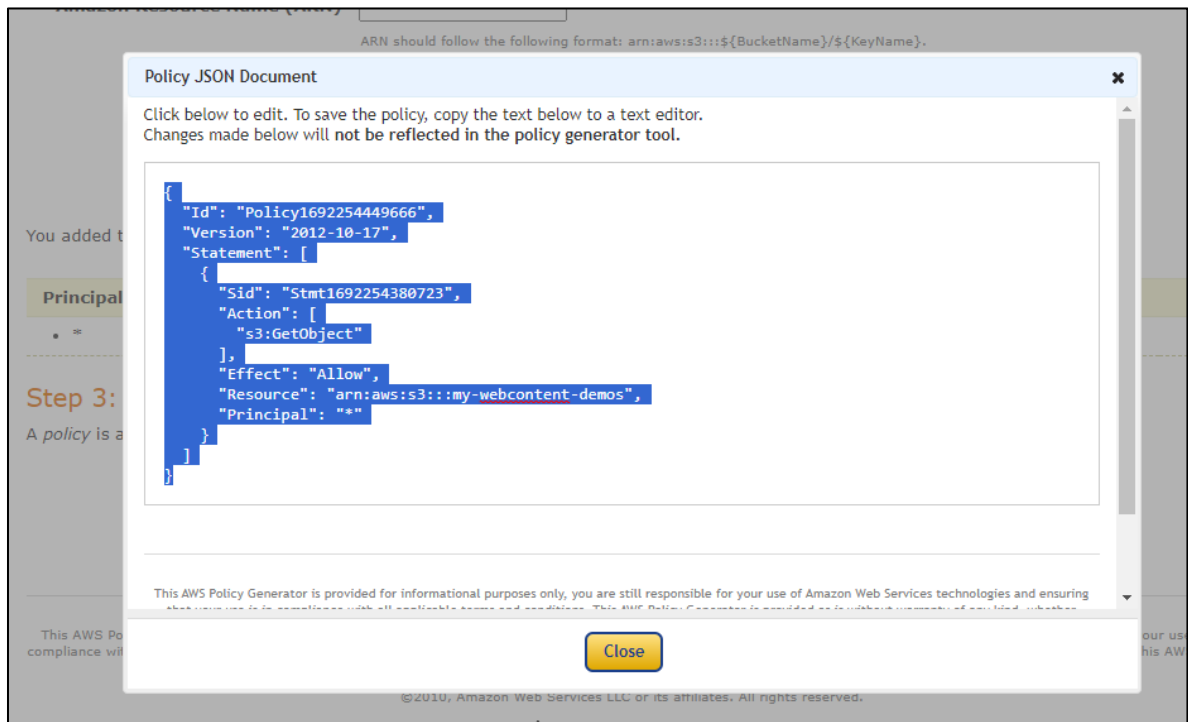
2.10 Paste the **Policy JSON** code in the **Edit bucket policy** section
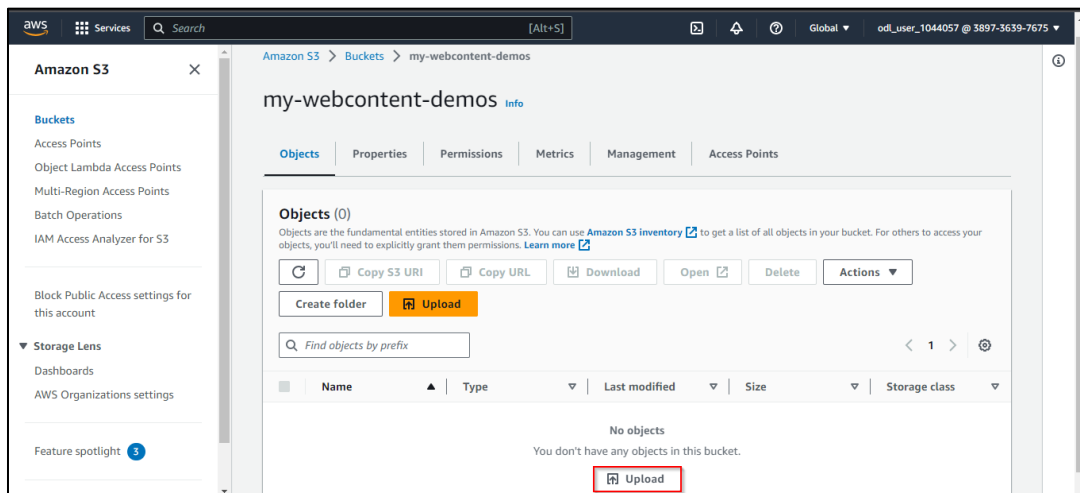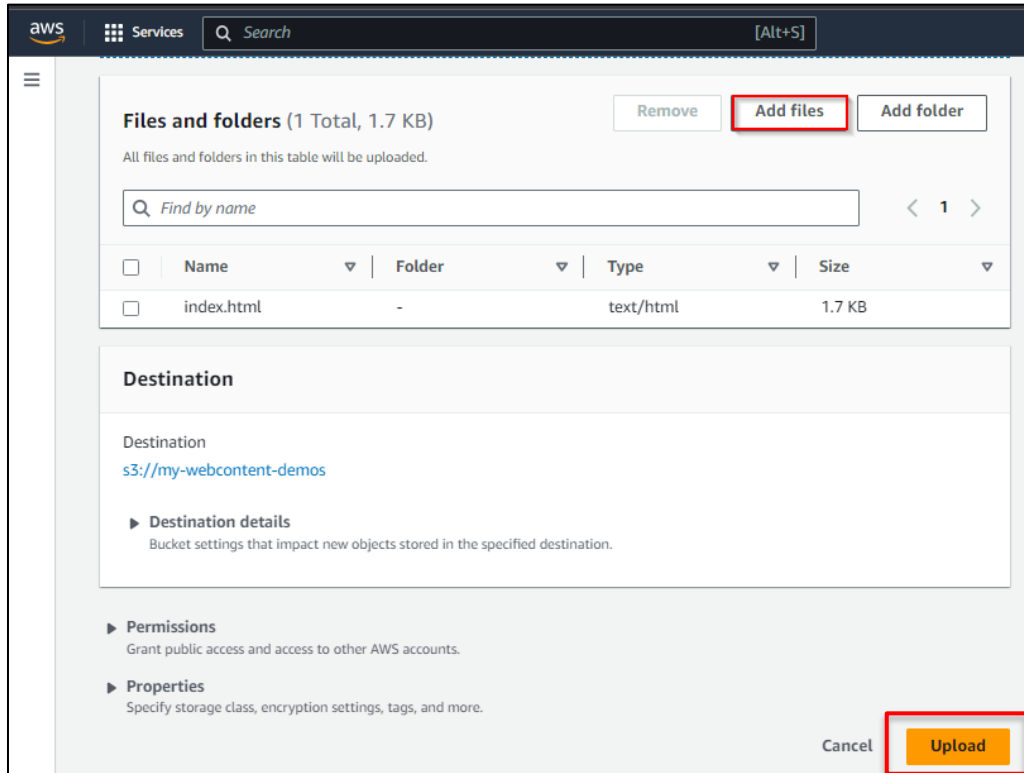
2.11 Click on **Save changes**

The bucket policy has been successfully added. If the bucket policy does not change, click on **Edit** in the **Block public access** section, and disable all public access.

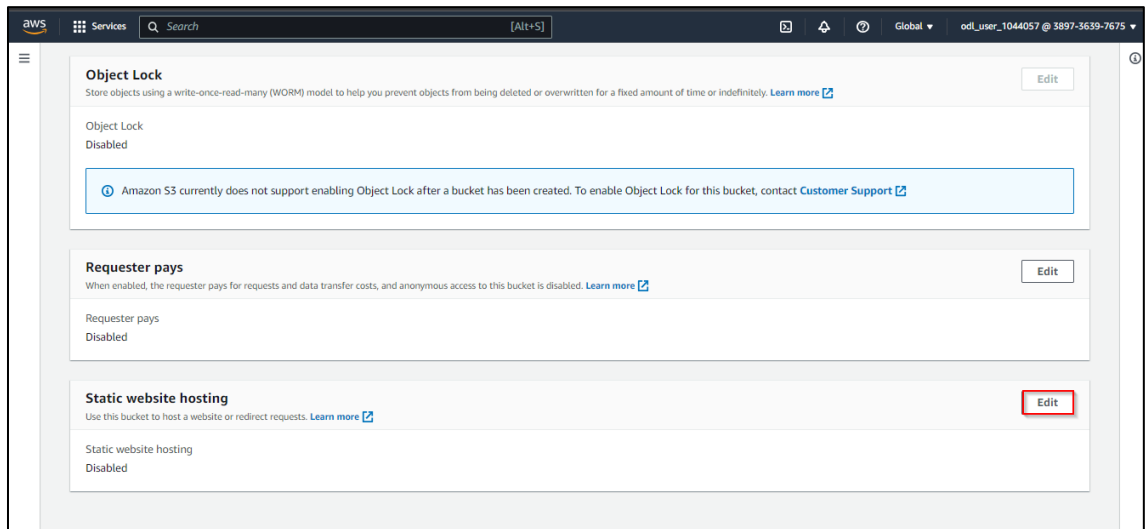## Step 3: Enable static website hosting

3.1 Navigate to **my-webcontent-demos**, click on the **Objects** tab, and then select **Upload**
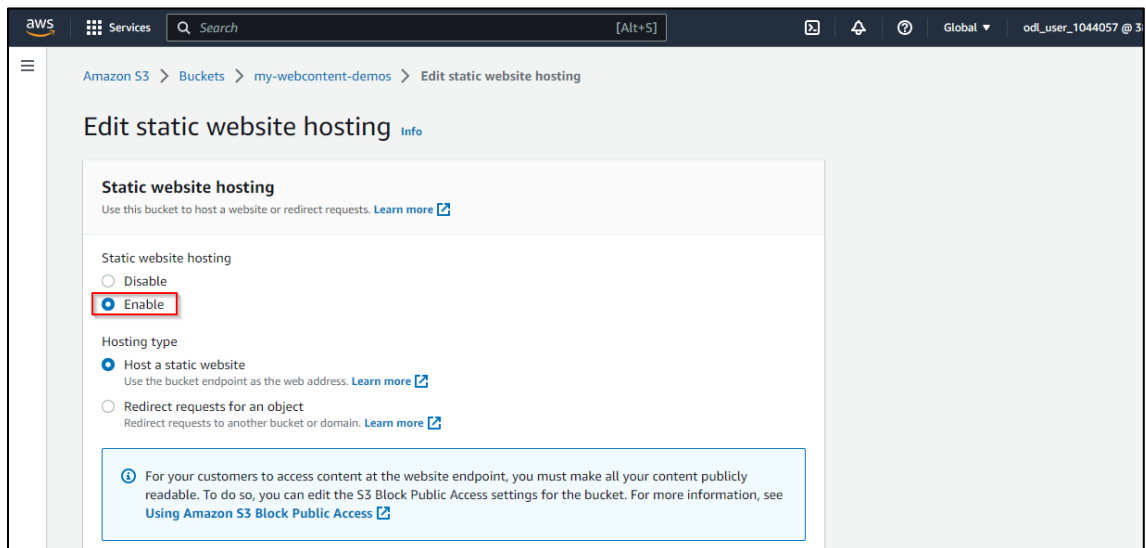
3.2 Click on **Add files**, upload any **index.html** file inside the S3 bucket **my-webcontent-demos,** and click on **Upload**

3.3 Navigate to the **Properties** tab and click on **Edit** in the **Static website hosting** section

3.4 Enable **Static website hosting**, specify the default page, and click **Save changes**

The static website hosting has been successfully edited.

Step 4: Test and verify the hosted website content

4.1 Navigate to the **Properties** tab, scroll to **Static website hosting**, and click the **Bucket website endpoint** link
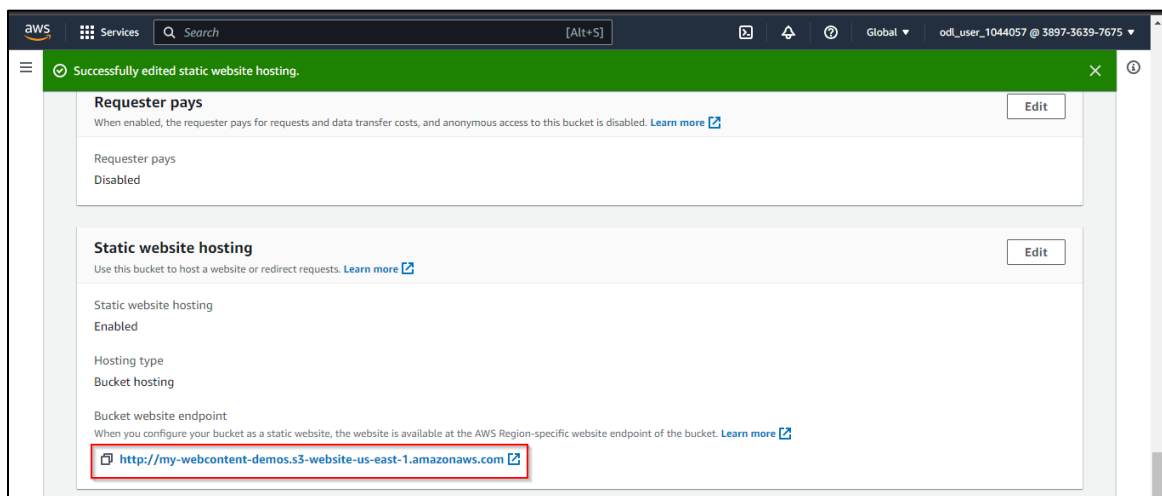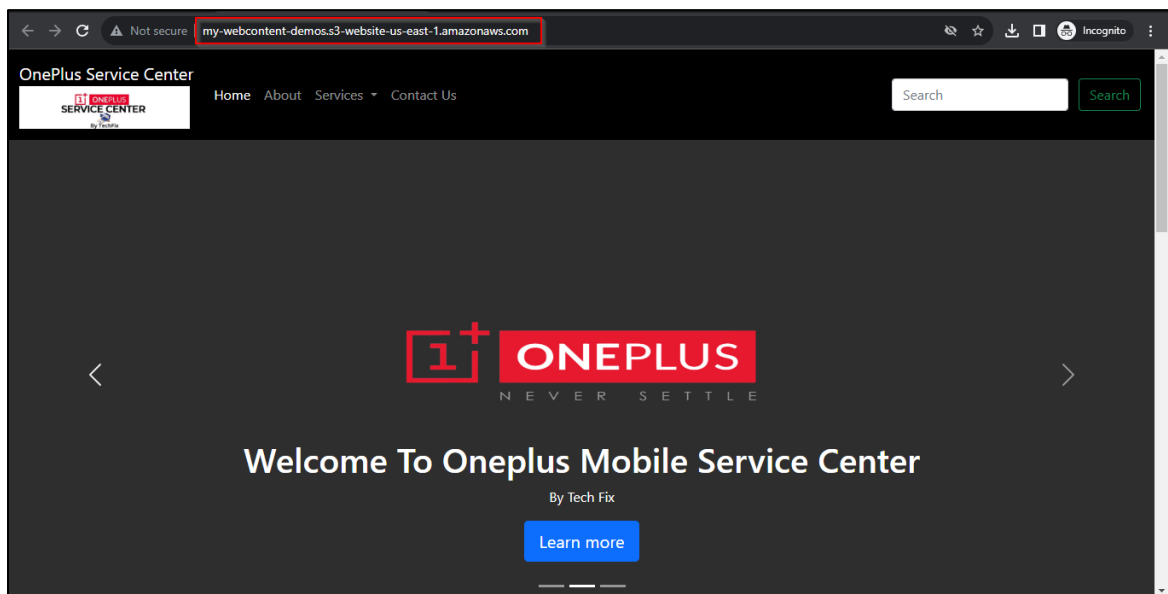
By following these steps, you have effectively established a streamlined process for hosting static website content using an S3 bucket, ensuring secure access and efficient deployment.