Practical 3
Cloud computing lab

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Scenario :

You are tasked with demonstrating the usage of different AWS storage services to a group of colleagues who are new to cloud computing. Your goal is to provide hands-on experience with Amazon S3 and Amazon EBS. Create a step-by-step guide for this demonstration, covering the creation, configuration, and use of each storage service.

Task 1 :	Demonstrate the process of creating Amazon Elastic Block storage(EBS) storage to your team. The goal is to showcase the steps to add an EBS Volume, mount it on an Amazon EC2 instance, and demonstrate file sharing across multiple instances using Snapshots. Describe the step-by-step process, including creating the EBS Volume, configuring security groups, and mounting it on EC2 instances.
Task 2 :	Demonstrate the process of creating a static website using Amazon S3 bucket storage to a group of beginners. The website should include multiple HTML files, CSS stylesheets, and images. Describe the step-by-step process, including setting up the S3 bucket, configuring the necessary permissions, and ensuring the website is accessible via a web browser.

Task 1

Step 1: Create an EBS Volume

1. Access the EC2 Dashboard:
   - Navigate to the EC2 Dashboard in the AWS Management Console.

2. Create a New EBS Volume:
   - In the left-hand menu, under "Elastic Block Store," click on "Volumes."
   - Click "Create Volume."
   - Configure the volume:
     - Volume Type: Select the appropriate type.
     - Size: Set the desired size of the volume.
     - Availability Zone: Make sure to choose the same availability zone as your Windows EC2 instance.
   - Click "Create Volume."

Step 2: Attach the EBS Volume to the Windows EC2 Instance

1. Attach the Volume:
   - Once the volume is created, select it from the list in the Volumes section.
   - Click "Actions" and then "Attach Volume."
   - Select your Windows EC2 instance from the dropdown and click "Attach."

Step 3: Connect to the EC2 Instance via RDP

1. Connect via RDP:
   - Use the Remote Desktop Protocol (RDP) client to connect to your Windows EC2 instance.
   - Use the public IP address or DNS name of the EC2 instance, along with the username and password you set up.

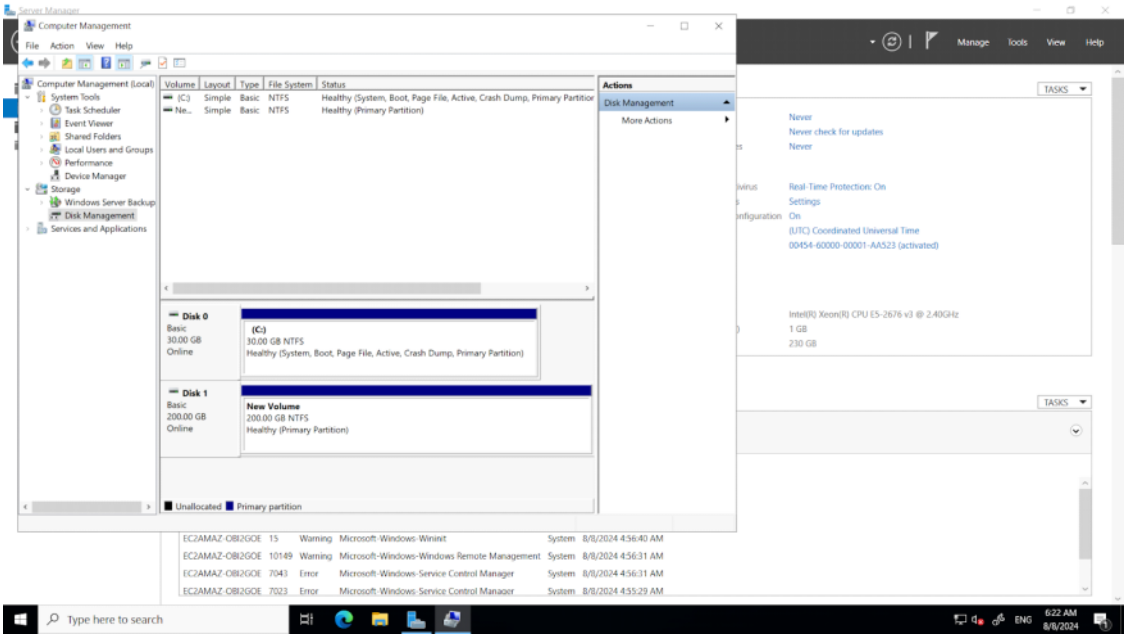
Step 4: Initialize and Mount the EBS Volume on Windows

1. Open Disk Management:

- Once logged in to the Windows EC2 instance, right-click the Start menu and select "Disk Management."

2. Initialize the Disk:
   - A prompt should appear for initializing the newly attached disk. Choose the partition style (MBR for volumes smaller than 2 TB, GPT for larger volumes).
   - Click "OK."

3. Create a New Volume:
   - Right-click on the unallocated space of the new disk and select "New Simple Volume."
   - Follow the wizard to format the volume and assign a drive letter.
   - Once completed, the new volume should be visible in "This PC" as a new drive.
   - Initialize the volume by making it online.



New volume as disk 1 created successfully.

Task 2

Step 1: Create an S3 Bucket

1. Access the S3 Dashboard:
   - Log in to the AWS Management Console.
   - Navigate to the S3 service by searching for “S3” in the search bar and selecting it.
2. Create a New Bucket:
   - Click on the "Create bucket" button.
   - Bucket Name: Enter a unique bucket name (e.g., my-static-website-bucket).
   - Region: Choose the appropriate AWS region.
   - Bucket Settings: Leave the default settings or configure them as needed.
   - Click "Create bucket."

Step 2: Upload Website Files to the S3 Bucket

1. Access the Bucket:
   - Click on the bucket name you just created to open it.
2. Upload Files:
   - Click on the "Upload" button.
   - Select the HTML files, CSS stylesheets, and images from your local machine that you want to include in your website.
   - After selecting the files, click "Upload."

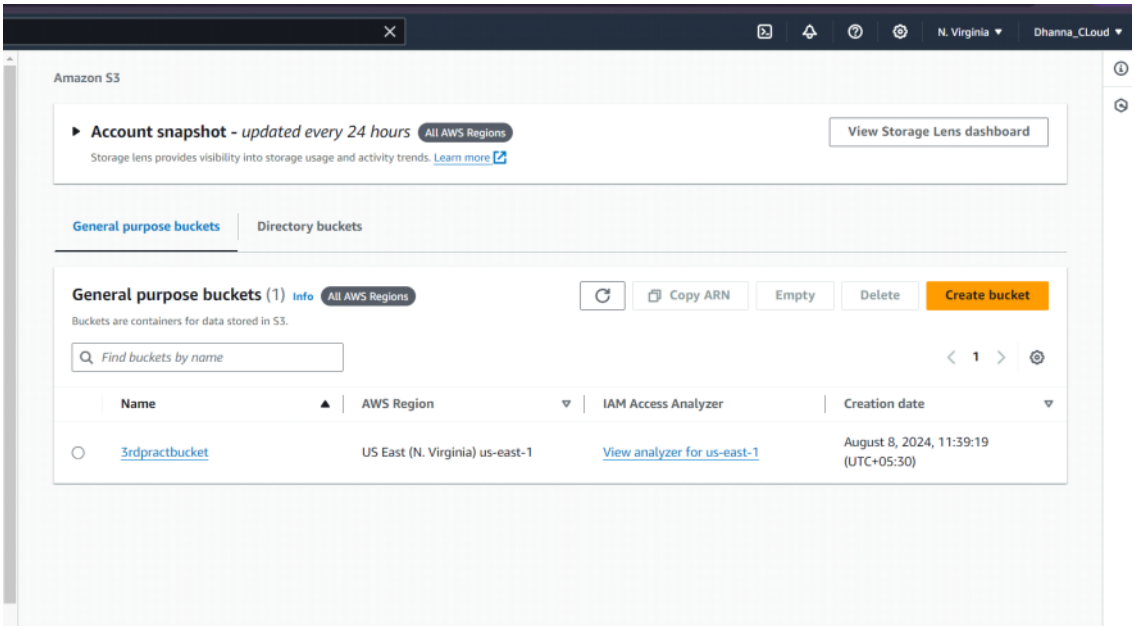
Step 3: Configure the S3 Bucket for Static Website Hosting

1. Enable Static Website Hosting:
    - In the bucket, go to the "Properties" tab.
    - Scroll down to the "Static website hosting" section.
    - Select "Enable."
    - Index Document: Enter the name of your main HTML file (e.g., index.html).
    - Error Document: Optionally, specify an error page (e.g., 404.html).
    - Click "Save changes."

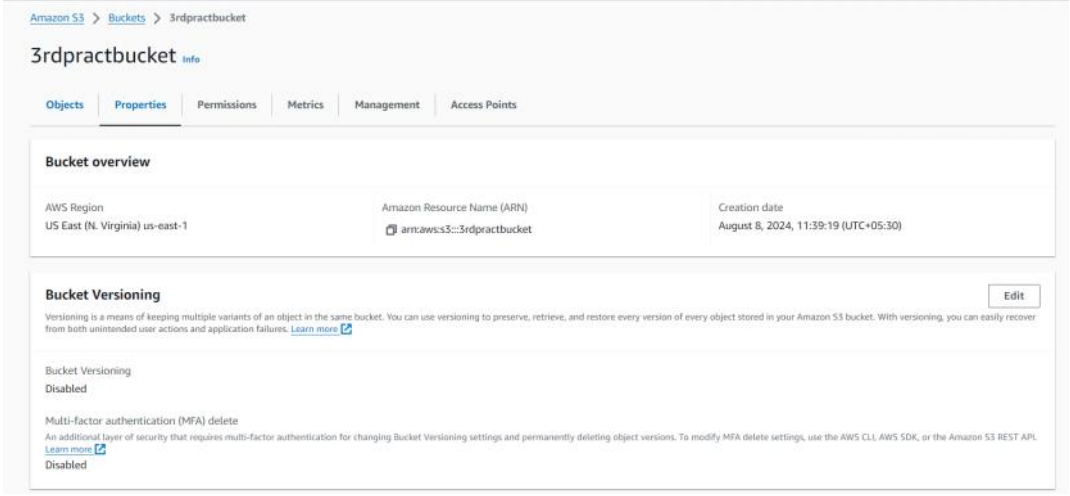
Step 4: Set Permissions for the S3 Bucket

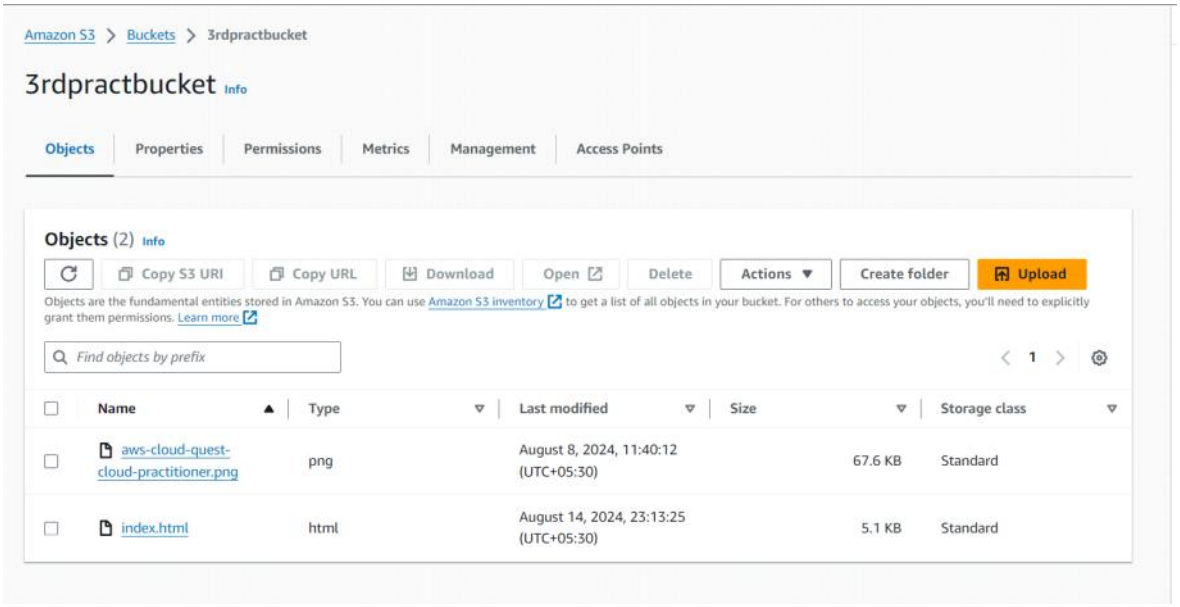
1. Make the Bucket Public:
    - Go to the "Permissions" tab in the bucket.
    - Scroll down to the "Bucket policy" section and click "Edit."
    - Add a bucket policy that allows public read access.
    - Click "Save changes."

S3 bucket created succesfully

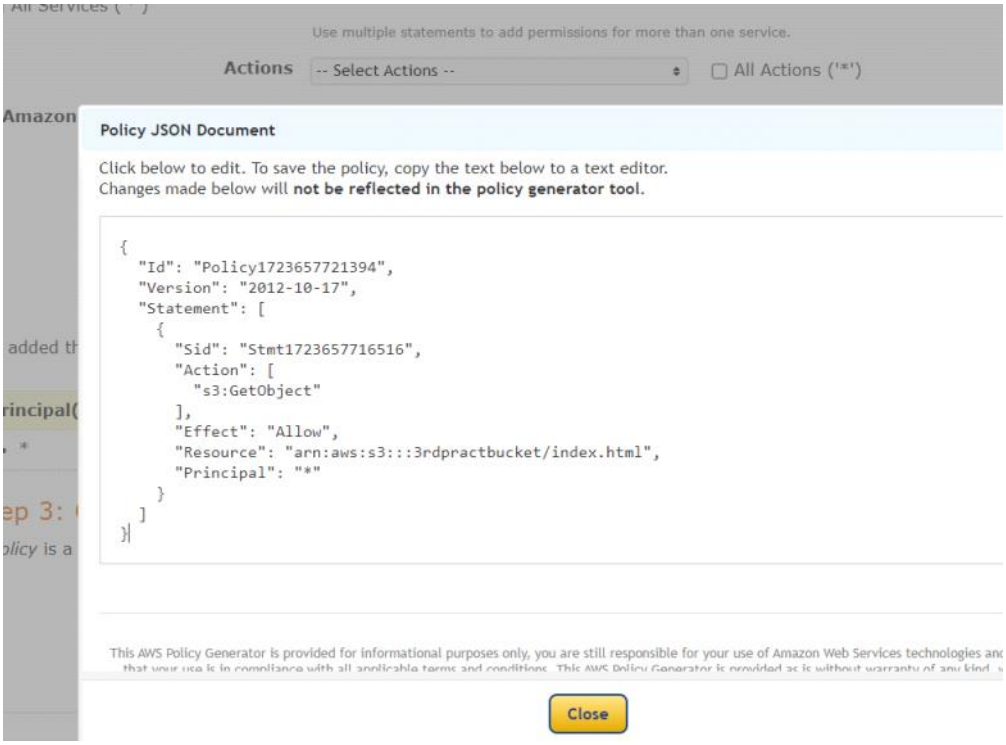


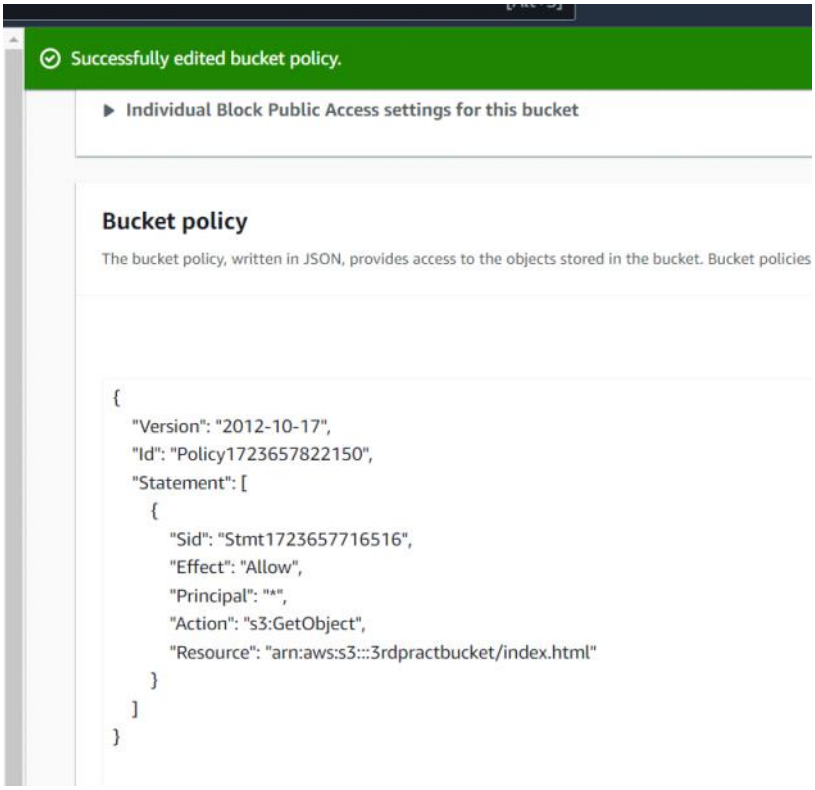
Details

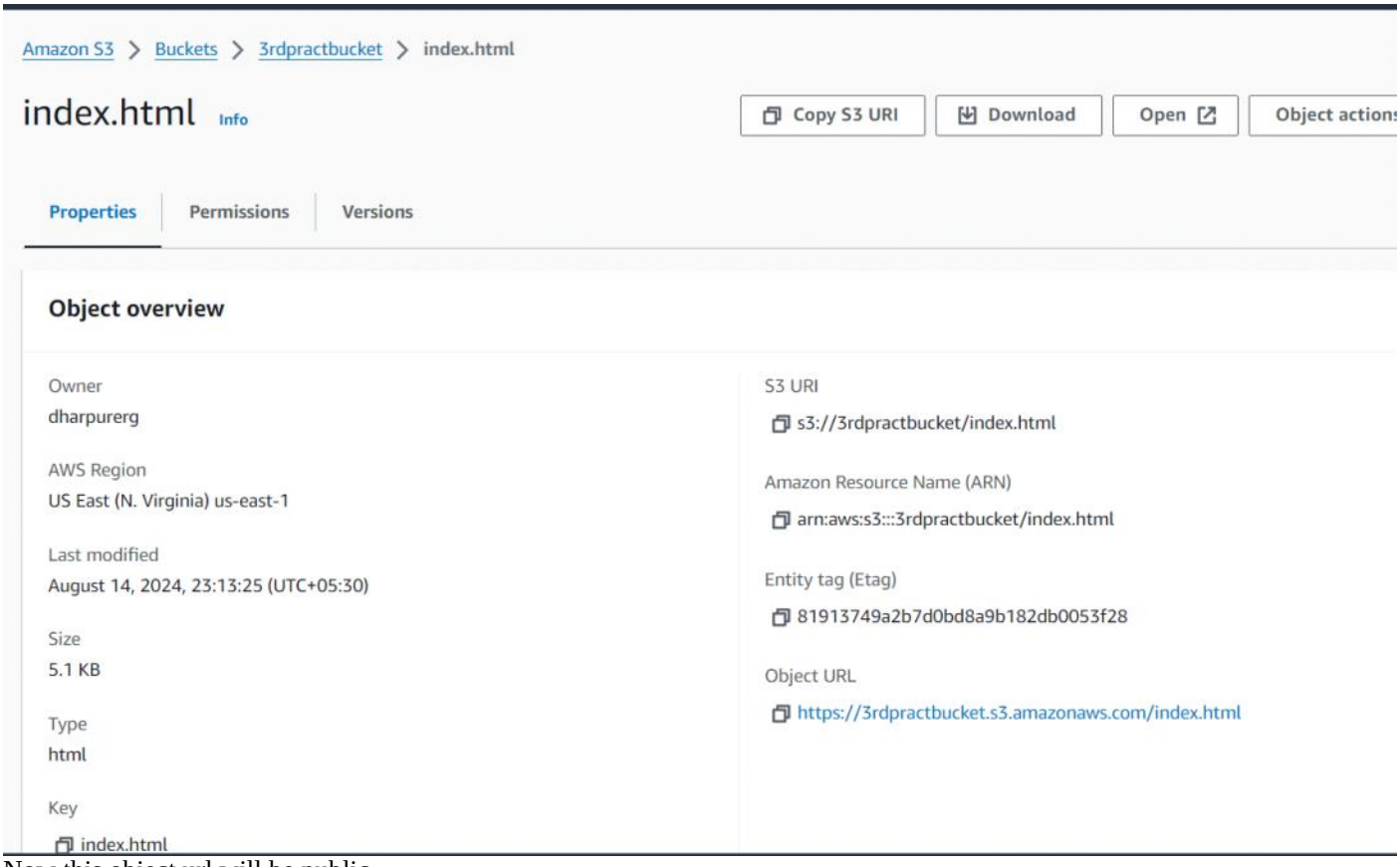




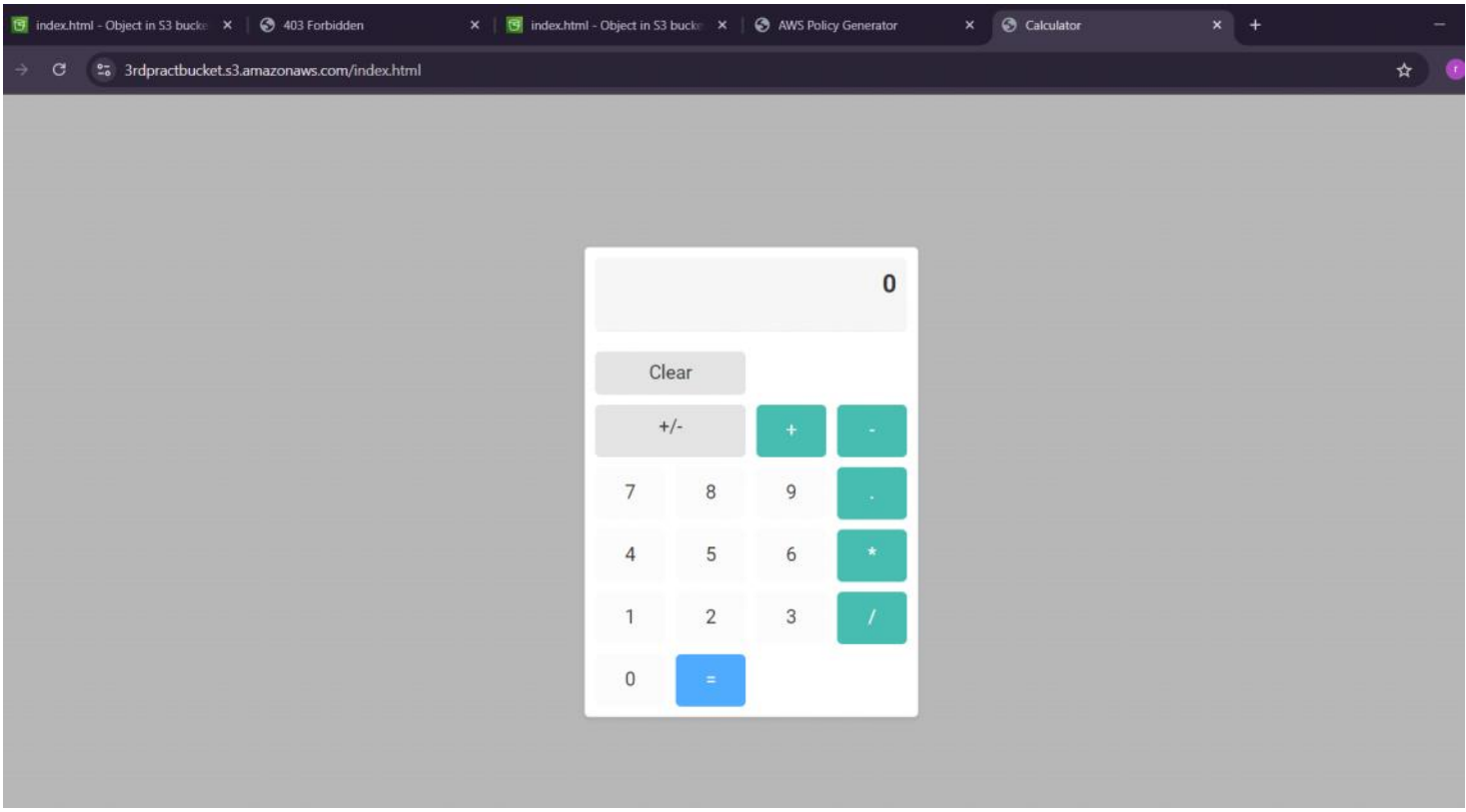
Index.html file representing an online web calculator uploaded to s3 bicket successfully







Now this object url will be public


index.html - Object in S3 bucke
403 Forbidden
index.html - Object in S3 bucke
AWS Policy Generator
Calculator
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