

## **Placement Empowerment Program**

### ***Cloud Computing and DevOps Centre***

#### **Use Cloud Storage**

*Create a storage bucket on your cloud platform and upload/download files. Configure access permissions for the bucket.*

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Department : CSE

# Introduction and Overview

In this (PoC), we will explore AWS S3 (Simple Storage Service) to understand its functionality as a reliable cloud storage solution. The task involves creating an S3 bucket, uploading and downloading files, and configuring access permissions to manage who can access the stored data. This PoC demonstrates S3's versatility in securely storing and retrieving files, both publicly and privately. We will also set bucket policies to control access and test public URLs for hosted files. By completing this task, we gain hands-on experience with S3 and its key features, such as scalability, security, and cost-efficiency.

## Objective

The goal of this project is to:

1. **Understand AWS S3 Basics:** Learn how to create, configure, and manage an S3 bucket for cloud storage.
2. **File Operations:** Gain hands-on experience in uploading, downloading, and managing files within the S3 bucket.
3. **Access Control:** Configure bucket policies and permissions to manage secure and public access to stored data.

## Importance of Storage Bucket(S3)

**Foundation for Advanced Use Cases:** Learning how to handle S3 storage is a stepping stone for mastering cloud computing and deploying large-scale applications.

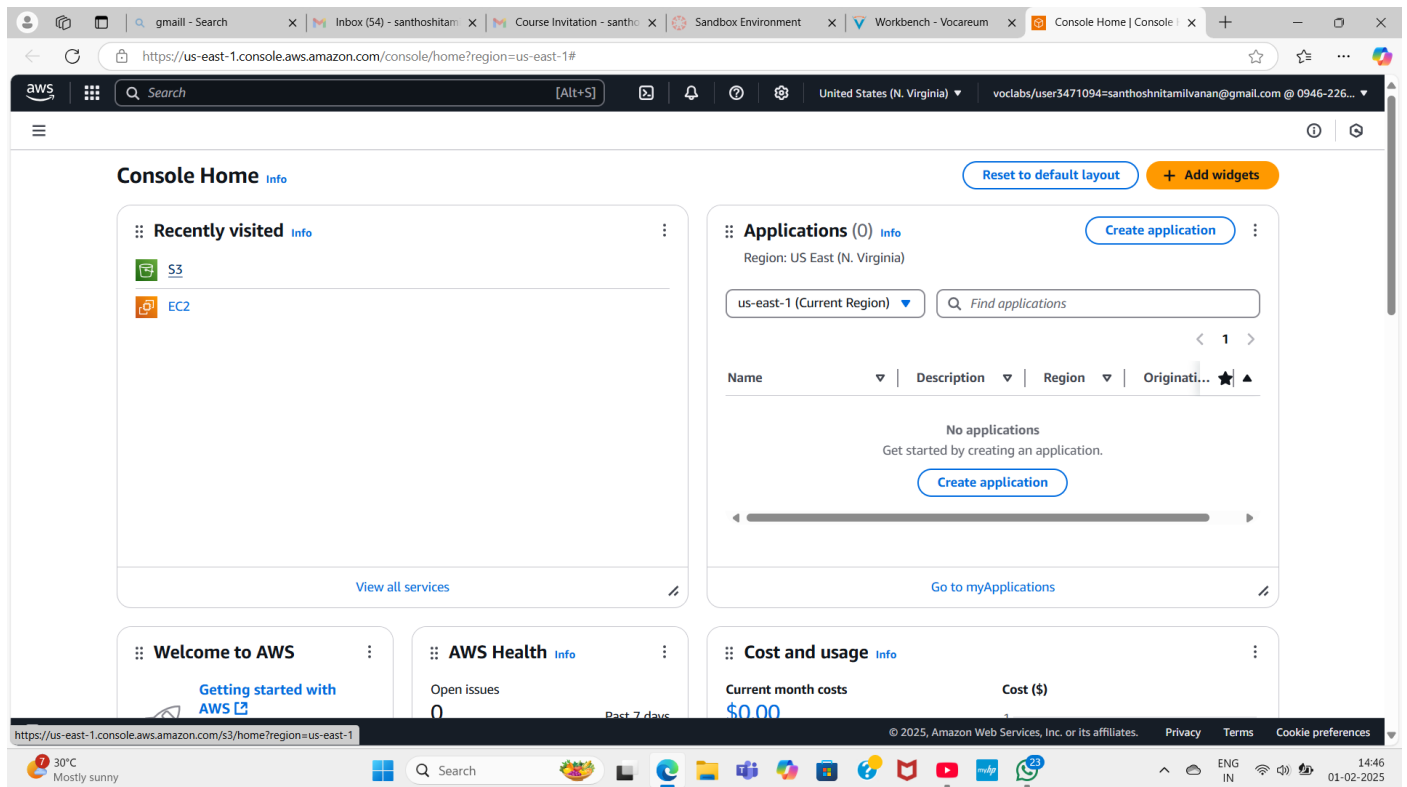
**Hands-On Learning of Cloud Storage:** AWS S3 provides a practical platform to learn cloud storage concepts, enabling users to create buckets, upload/download files, and manage data at scale.

**Data Security and Access Control:** By configuring bucket policies and permissions, users can secure their data and manage who can access it.

# Step-by-Step Overview

## Step1:

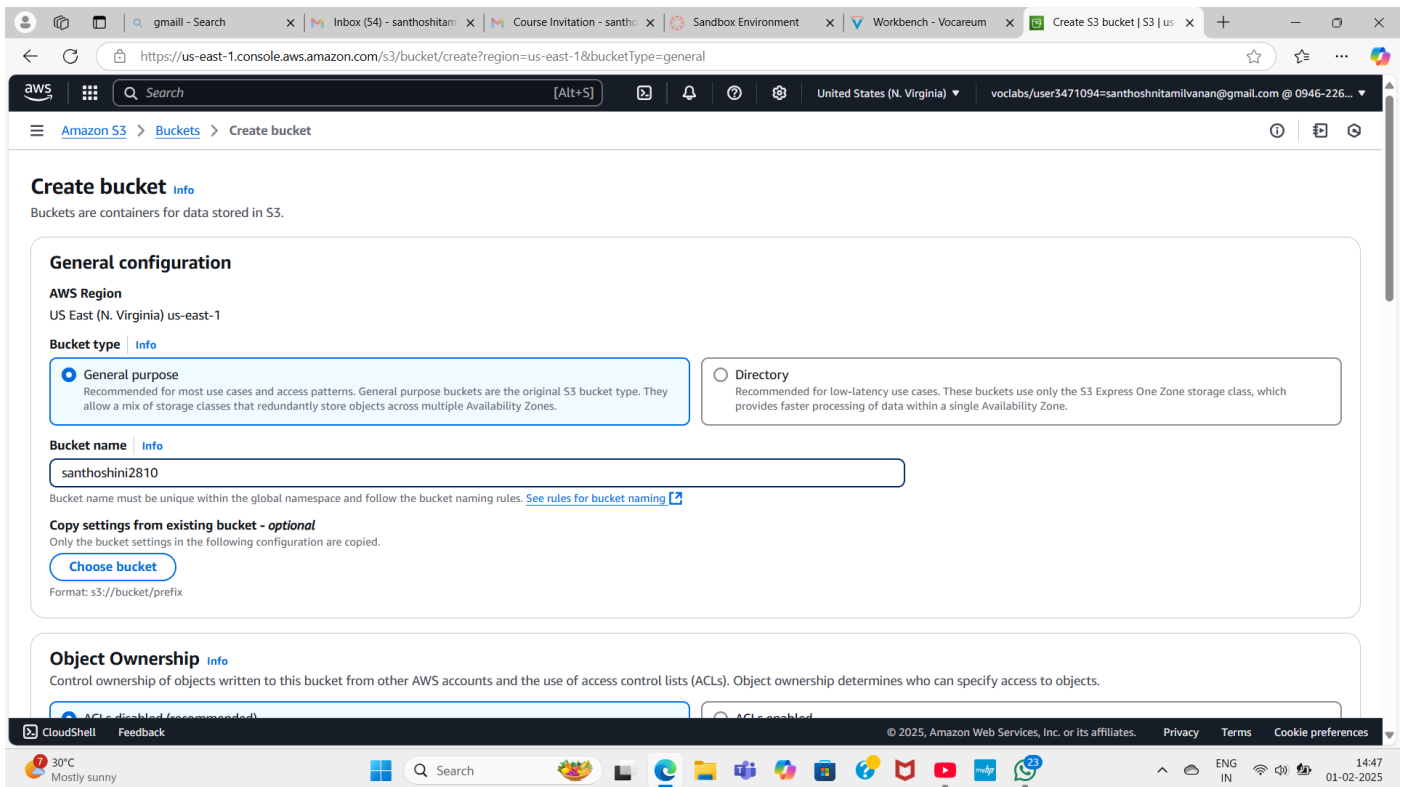
Go to the AWS Management Console, Search for and click on S3



## Step 2 :

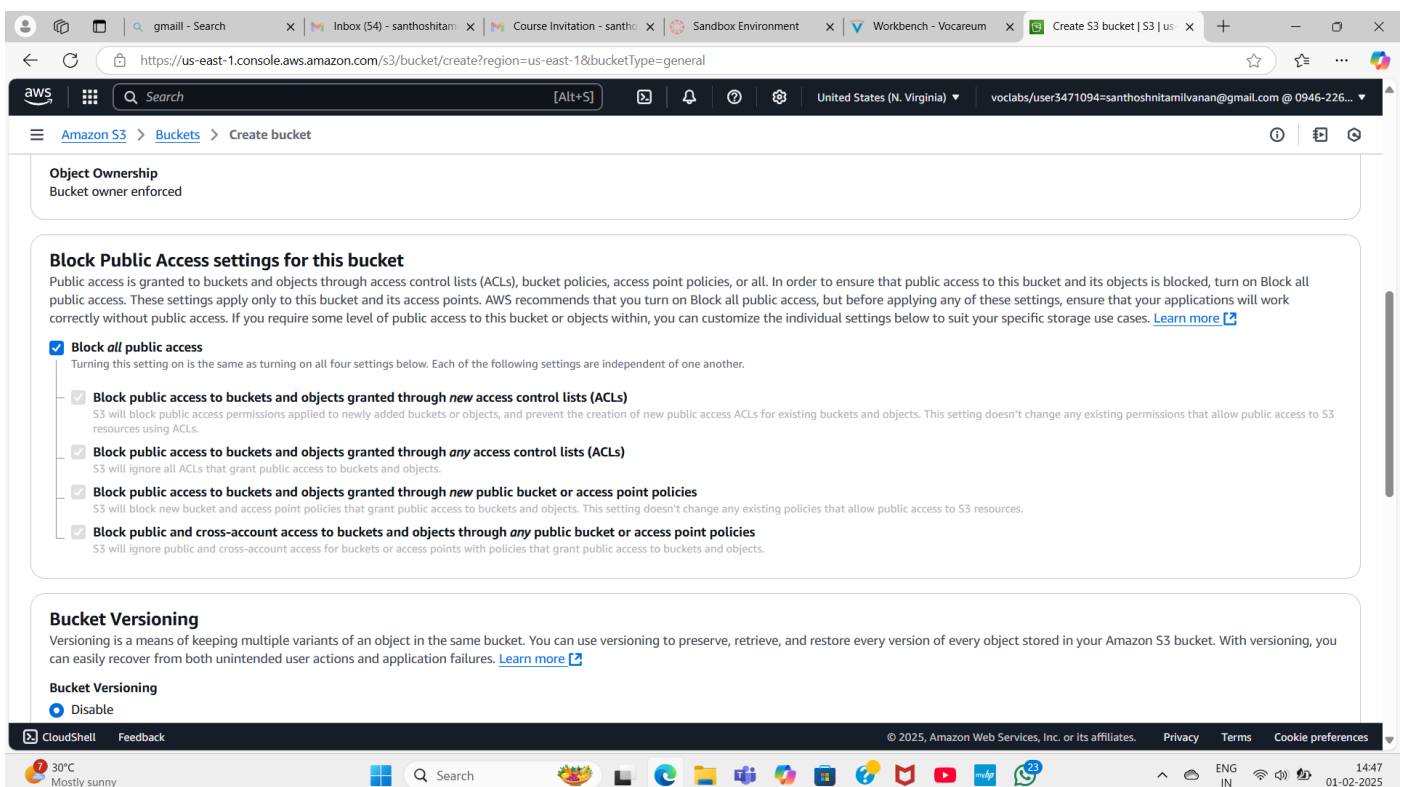
Click the "Create bucket" button.

Enter a unique bucket name (e.g., my-storage-bucket-123).



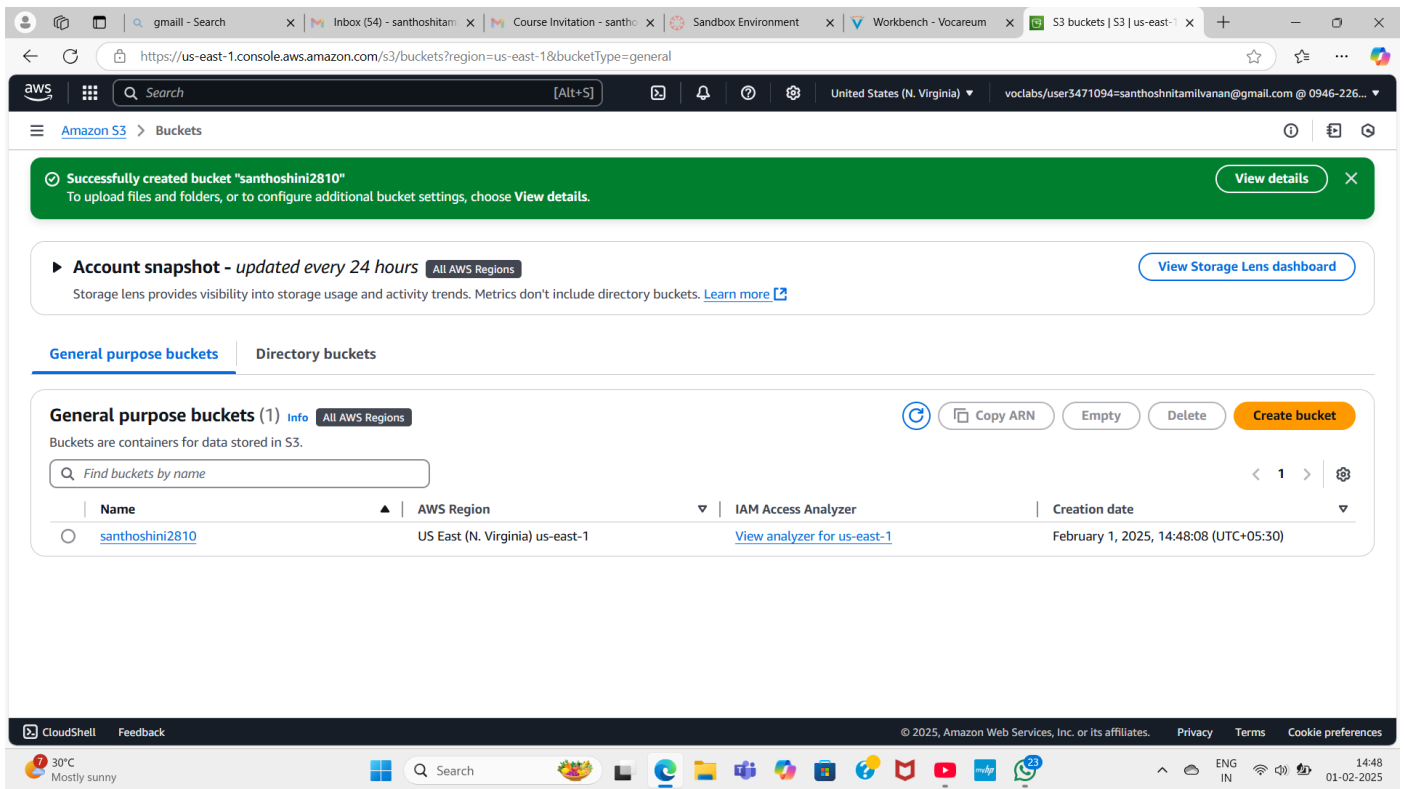
## Step 3 :

Leave "Block all public access" enabled for now (you can modify it later).



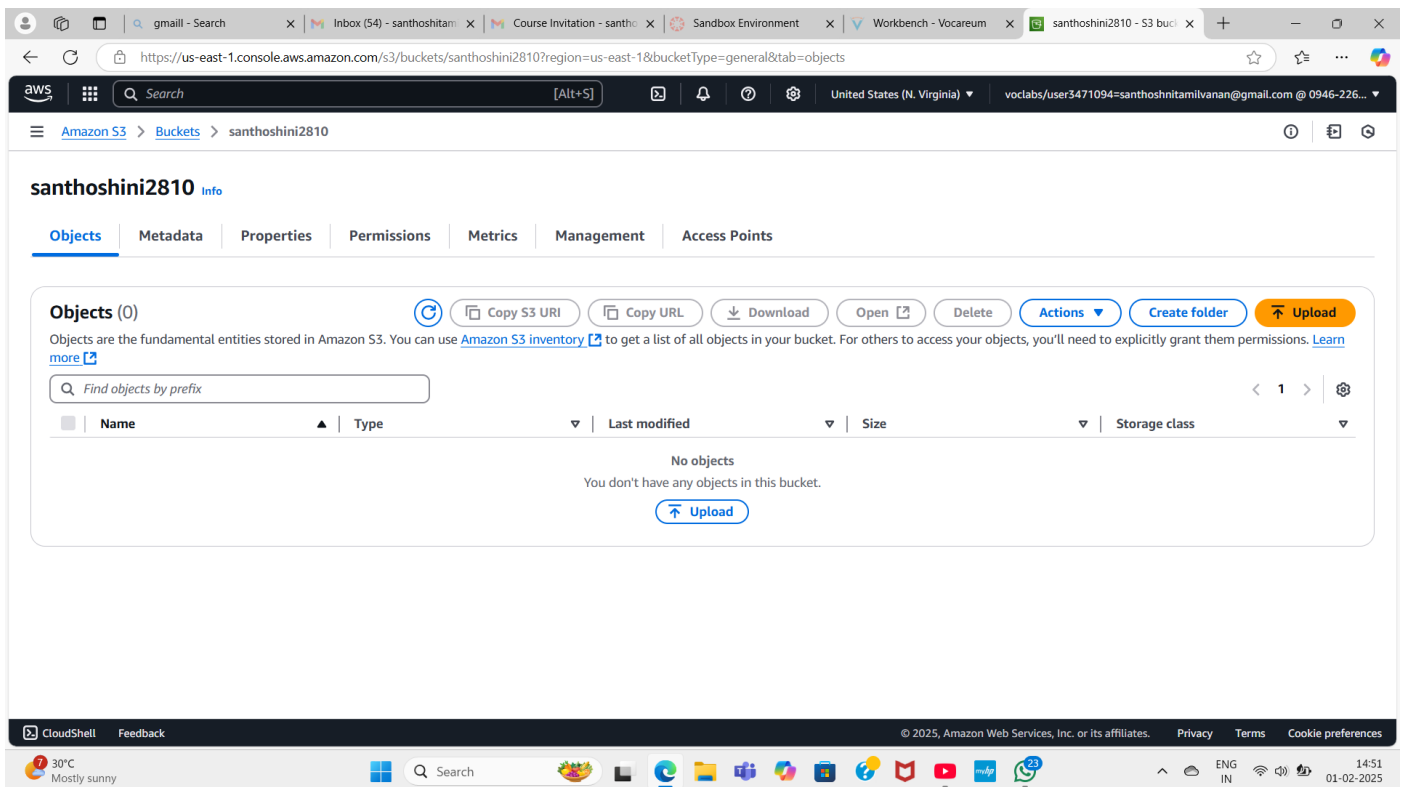
## Step 4 :

Click "Create bucket".



Step 5 :

Open your newly created bucket from the S3 console.



# Step 6 :

Click "Upload" and then,

Drag and drop your file(s) or use the Add files button. Click Upload to complete.

**Upload** [Info](#)

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDKs or Amazon S3 REST API. [Learn more](#)

Drag and drop files and folders you want to upload here, or choose [Add files](#) or [Add folder](#).

**Files and folders** (1 total, 45.5 KB)

All files and folders in this table will be uploaded.

<input type="checkbox"/>	Name	Folder	Type	Size
<input type="checkbox"/>	4209 (3) (1).pdf	-	application/pdf	45.5 KB

**Destination** [Info](#)

**Destination**  
[s3://santhoshini2810](#)

**Destination details**  
Bucket settings that impact new objects stored in the specified destination.

**Permissions**  
Grant public access and access to other AWS accounts.

**Upload succeeded**  
For more information, see the [Files and folders](#) table.

**Upload: status** [Close](#)

After you navigate away from this page, the following information is no longer available.

**Summary**

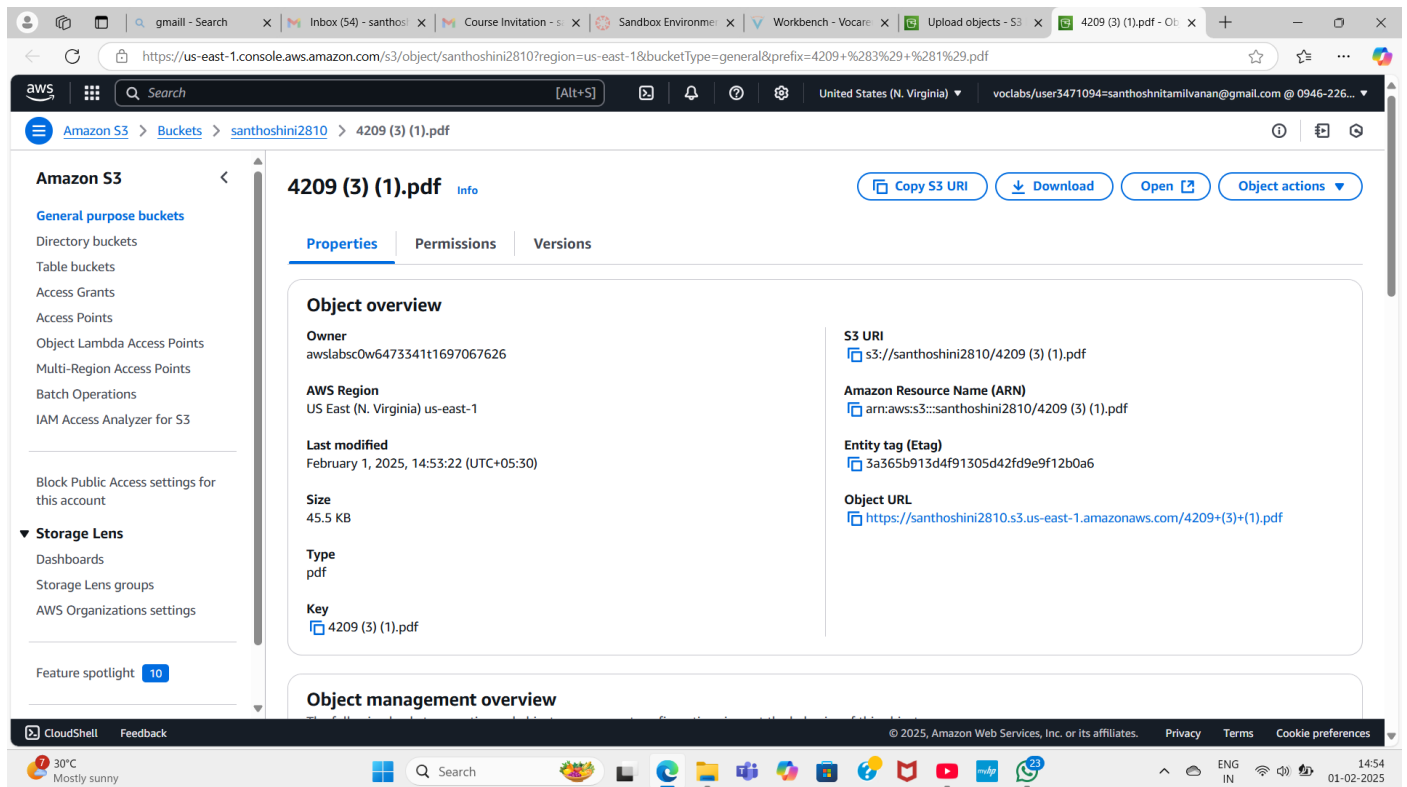
<b>Destination</b> <a href="#">s3://santhoshini2810</a>	<b>Succeeded</b> 1 file, 45.5 KB (100.00%)	<b>Failed</b> 0 files, 0 B (0%)
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**Files and folders** (1 total, 45.5 KB)

Name	Folder	Type	Size	Status	Error
<a href="#">4209 (3) (1).pdf</a>	-	application/pdf	45.5 KB	Succeeded	-

## Step 7 :

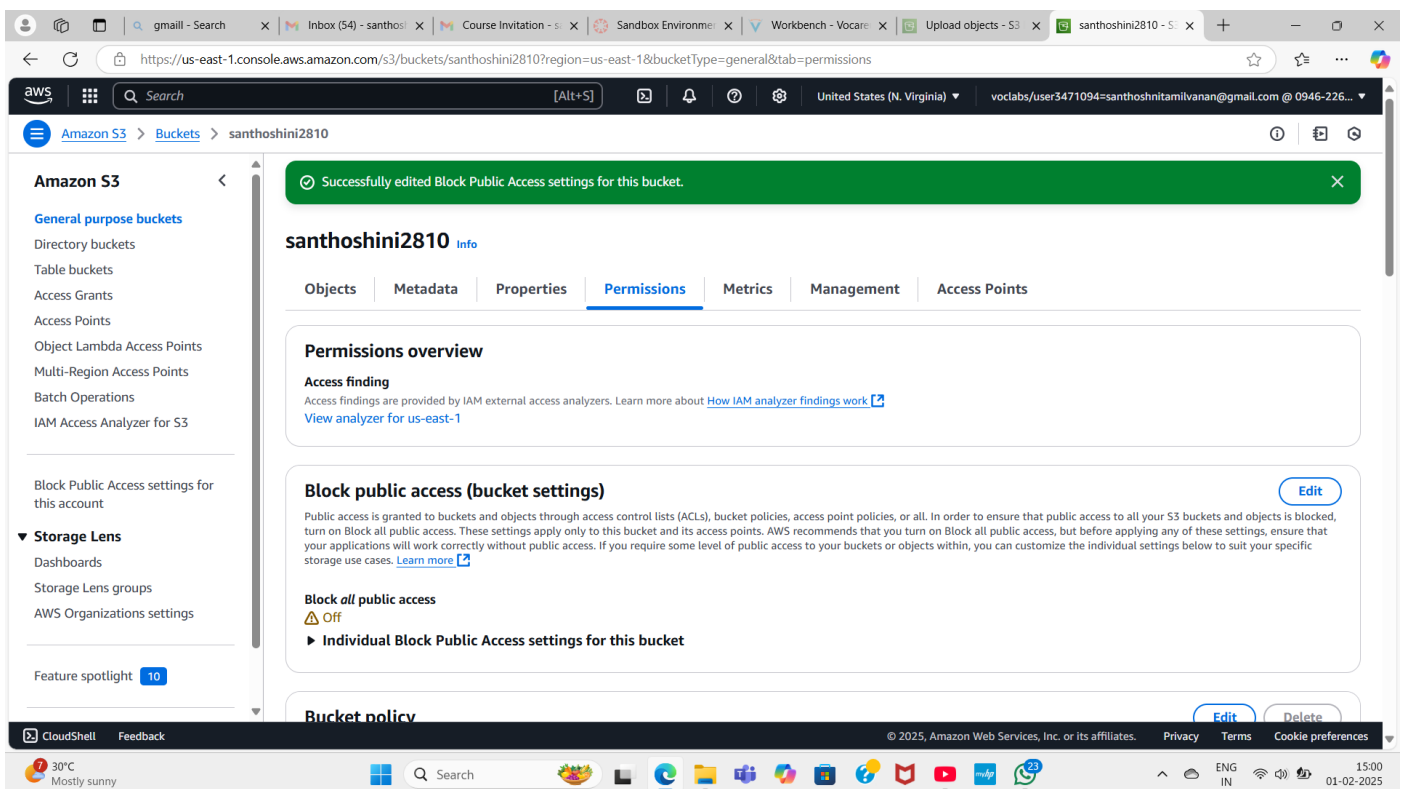
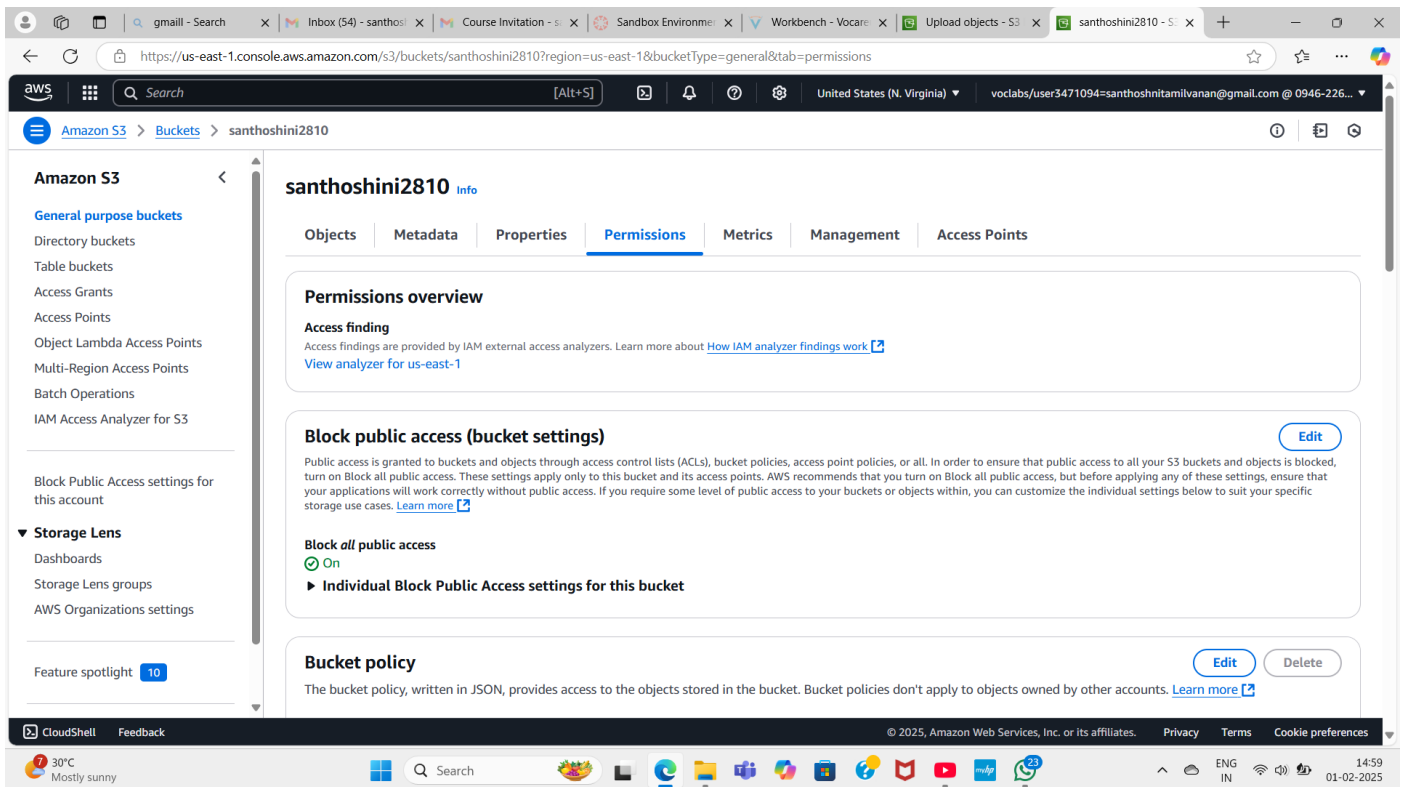
Go to the uploaded file in your bucket. Click the file name to open its details. Select Download to save the file locally.



## Step 8 :

Open your bucket and navigate to the "Permissions" tab.

Under Block public access, click Edit and uncheck "Block all public access". Confirm by typing "confirm" and save.



Step 9 :

In the "Permissions" tab, scroll to Bucket Policy and click Edit. Replace your bucket-name with your actual bucket name. Save changes.



The screenshot shows the AWS console interface for editing the bucket policy of 'santhoshini2810'. The left sidebar contains navigation links for Amazon S3, including 'General purpose buckets', 'Directory buckets', 'Table buckets', 'Access Grants', 'Access Points', 'Object Lambda Access Points', 'Multi-Region Access Points', 'Batch Operations', 'IAM Access Analyzer for S3', 'Block Public Access settings for this account', 'Storage Lens', and 'Feature spotlight'. The main content area displays the bucket policy in JSON format. The policy is a single statement that allows the 's3:GetObject' action on the bucket. The 'Edit statement' panel on the right shows a 'Select a statement' dialog with an 'Add new statement' button. The top navigation bar includes the AWS logo, search bar, and user information. The bottom status bar shows the date and time as 01-02-2025, 15:02.

```
1 {
2   "Version": "2012-10-17",
3   "Statement": [
4     {
5       "Effect": "Allow",
6       "Principal": "*",
7       "Action": "s3:GetObject",
8       "Resource": "arn:aws:s3:::your-bucket-name/*"
9     }
10  ]
11 }
```

The screenshot shows the AWS console interface for the 'santhoshini2810' bucket. The left sidebar is the same as the previous screenshot. The main content area shows the 'Permissions' tab selected. A green banner at the top indicates 'Successfully edited bucket policy.' The 'Permissions overview' section includes 'Access finding' and 'Block public access (bucket settings)'. The 'Block public access' section shows 'Block all public access' set to 'Off' and a link to 'Individual Block Public Access settings for this bucket'. The 'Bucket policy' section at the bottom has 'Edit' and 'Delete' buttons. The top navigation bar and bottom status bar are consistent with the previous screenshot.

Step10:

Use the S3 bucket URL or public file URL to test access permissions.

Amazon S3 Buckets > santhoshini2810

**santhoshini2810** Info

Objects Metadata Properties Permissions Metrics Management Access Points

Object URL Copied

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

<input checked="" type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input checked="" type="checkbox"/>	4209 (3) (1).pdf	pdf	February 1, 2025, 14:53:22 (UTC+05:30)	45.5 KB	Standard

CloudShell Feedback

https://santhoshini2810.s3.us-east-1.amazonaws.com/4209+(3)+(1).pdf

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SUMMARY

I am Santhoshini, Cloud Computing & Devops Enthusiast and a B.E Computer Science Student at St. Joseph's Institute of Technology, Chennai. I had the opportunity to organize a symposium during my 3rd semester, which helped me develop my leadership and event management skills.

EDUCATION

School

Vignesh International school, Tiruvanamalai

College

St. Joseph's Institute of Technology, Chennai

GPA: 8.4

SKILLS

LINKED IN

[https://www.linkedin.com/in/santhoshini-t-70b2b2295?utm\\_source=share\\_via&utm\\_content=profile&utm\\_medium=android\\_ap](https://www.linkedin.com/in/santhoshini-t-70b2b2295?utm_source=share_via&utm_content=profile&utm_medium=android_ap)

LANGUAGE

- Tamil (native speaker)
- English (Good)

EXTRACURRICULAR ACTIVITIES

- Member in IOT

## Expected Outcome

By completing this POC, you will:

1. Successfully create an AWS S3 bucket and perform file upload/download operations.

2. Configure and validate access permissions, ensuring secure or public access as needed.
3. Gain a solid understanding of S3's functionality, enabling its use in real-world cloud-based applications.