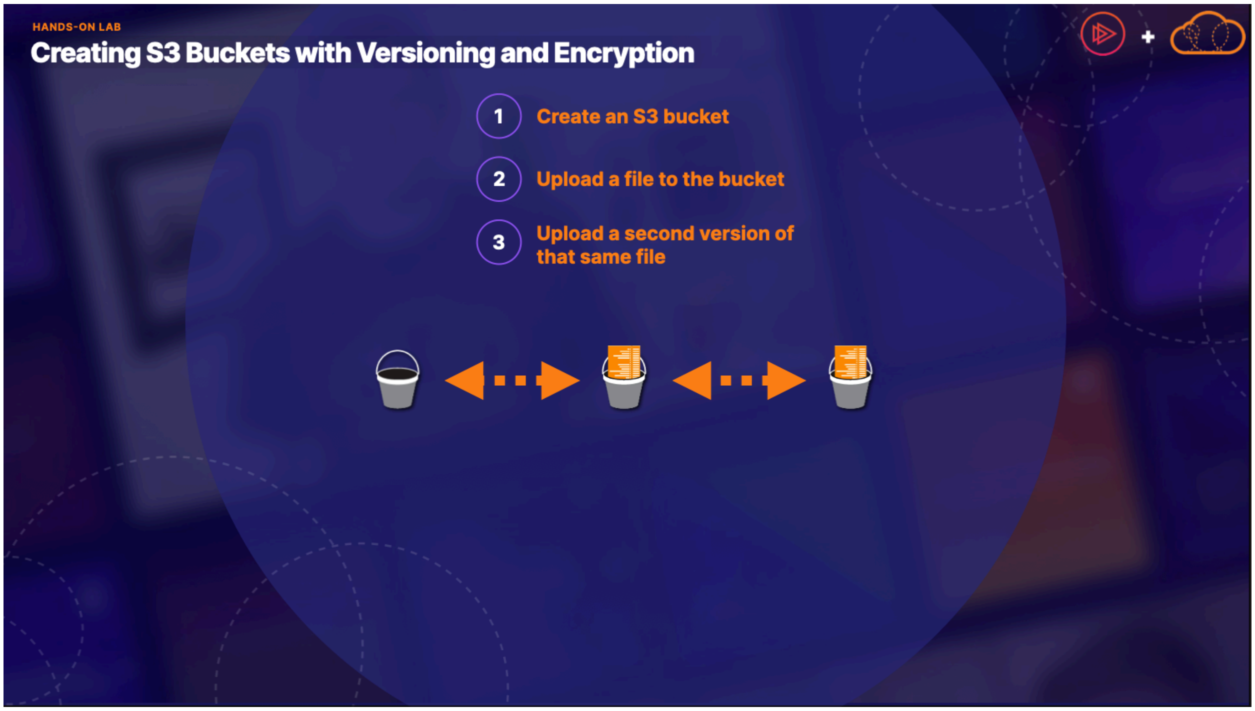
Creating S3 Buckets with Versioning and Encryption

Introduction

In this lab, we will be creating an S3 bucket with versioning and encryption.

Lab Diagram



HANDS-ON LAB

Creating S3 Buckets with Versioning and Encryption

1 Create an S3 bucket

2 Upload a file to the bucket

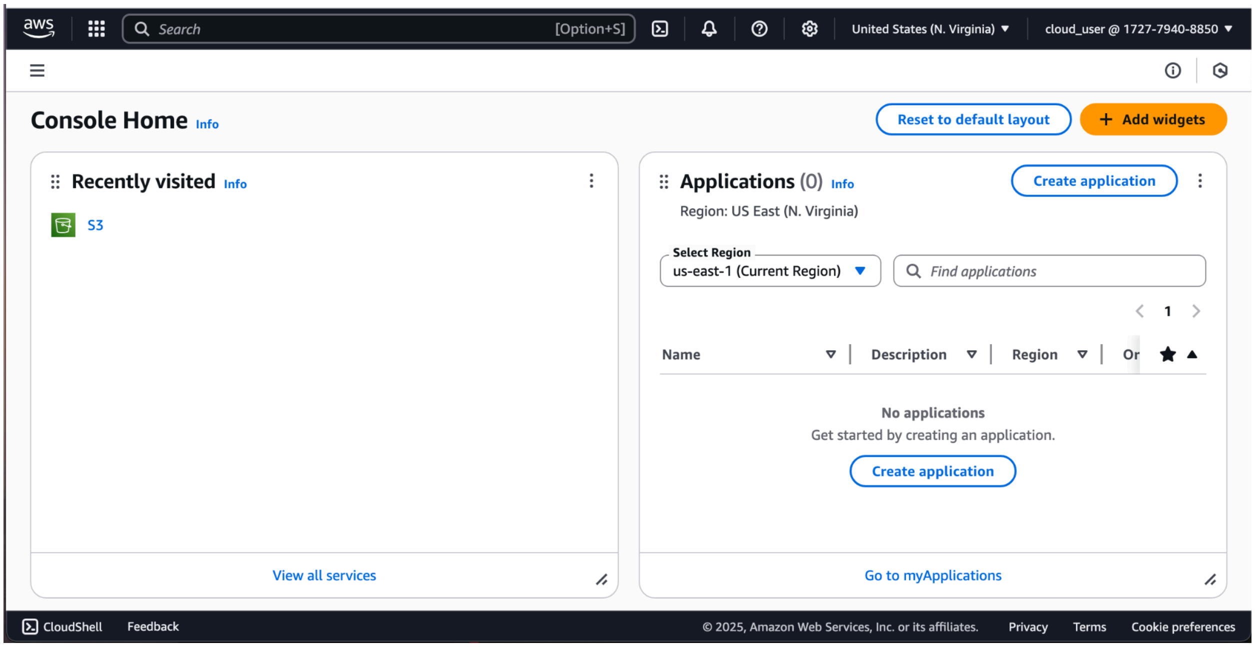
3 Upload a second version of that same file

Objective

1.Logging AWS console and creating S3 bucket.
2.Upload a file to the bucket.
3.Upload Second version of the file.

Solution

Log in to the AWS Management Console using the credentials provided on the lab instructions page. Make sure you're using the us-east-1 Region.In the search bar on top of the console, enter S3.



Region: US East (N. Virginia)

Select Region: us-east-1 (Current Region)

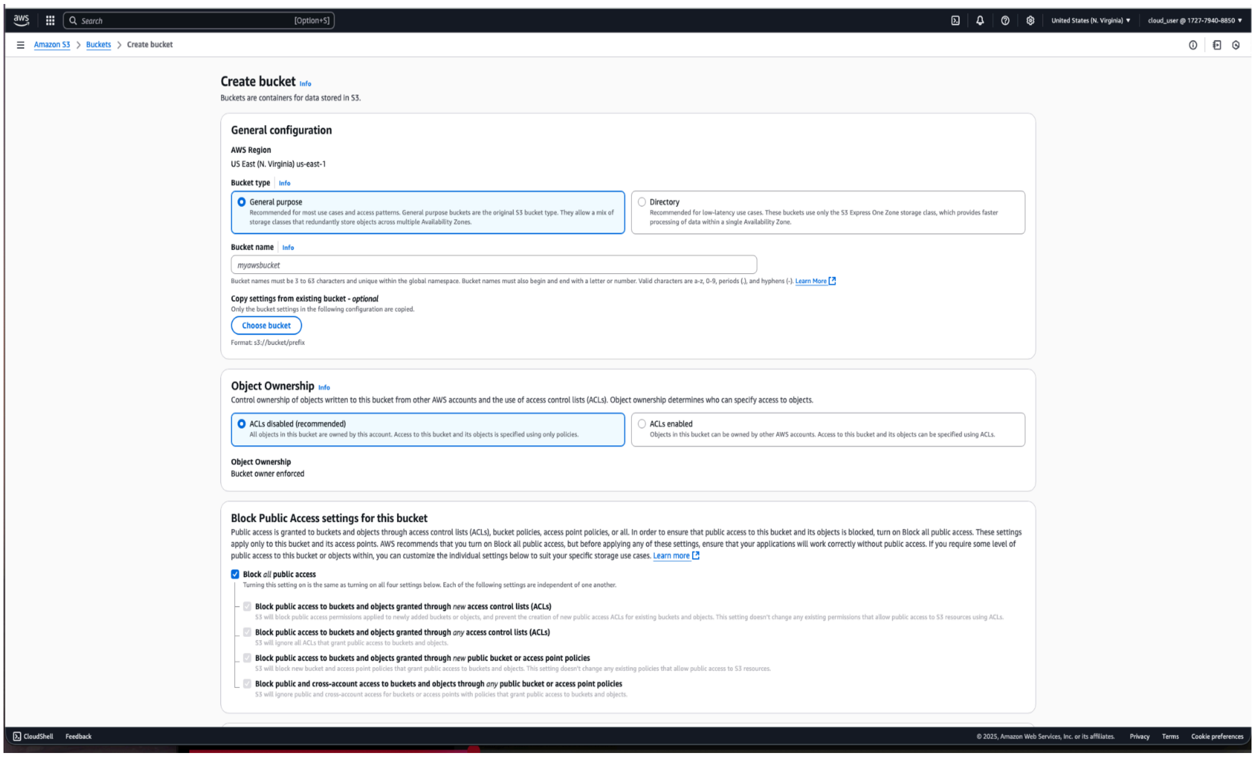
No applications

Get started by creating an application.

2.Create an S3 Bucket

- From the search results, click S3
- Click Create bucket.
- On the Create bucket page, set the following parameters:
- In Bucket name, enter a globally unique name.
- Leave ACLs disabled (recommended) selected.

- Leave Block all public access selected.
- In Bucket Versioning, select Enable.
- Click Create Bucket.
- Click the name of the bucket.
- Click the Properties tab.
- Review the information to check that bucket versioning is enabled and encryption has been applied.


aws
Search [Option+S]
United States (N. Virginia) ▾
cloud_user @ 1727-7940-8850 ▾
Amazon S3 > Buckets > Create bucket
Info
Choose bucket
Learn More
Learn more
CloudShell
Feedback
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Privacy
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Create bucket

Buckets are containers for data stored in S3.

General configuration

AWS Region
US East (N. Virginia) us-east-1

Bucket type
● General purpose
Recommended for most use cases and access patterns. General purpose buckets are the original S3 bucket type. They allow a mix of storage classes that redundantly store objects across multiple Availability Zones.
○ Directory
Recommended for low-latency use cases. These buckets use only the S3 Express One Zone storage class, which provides faster processing of data within a single Availability Zone.

Bucket name
myawsbucket
Bucket names must be 3 to 63 characters and unique within the global namespace. Bucket names must also begin and end with a letter or number. Valid characters are a-z, 0-9, periods (.), and hyphens (-).

Copy settings from existing bucket - *optional*
Only the bucket settings in the following configuration are copied.
Format: s3://bucket/prefix

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.

Object Ownership
Bucket owner enforced

Block Public Access settings for this bucket

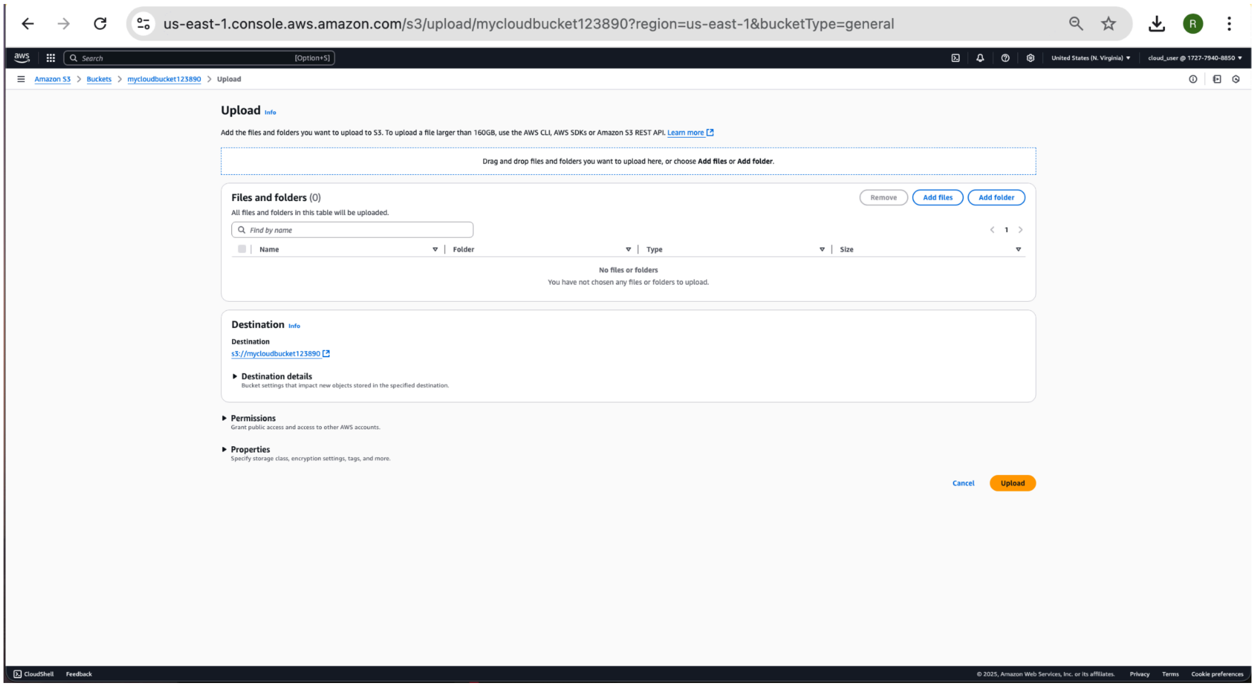
Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to this bucket and its objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access 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 this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases.

☑ Block *all* public access
Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.
- ☑ Block public access to buckets and objects granted through *new* access control lists (ACLs)
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
- ☑ Block public access to buckets and objects granted through *any* access control lists (ACLs)
S3 will ignore all ACLs that grant public access to buckets and objects.
- ☑ Block public access to buckets and objects granted through *new* public bucket or access point policies
S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.
- ☑ Block public and cross-account access to buckets and objects through *any* public bucket or access point policies
S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

3.Upload a File to the Bucket.

- In another browser tab or window, navigate to the GitHub repository for the lab: https://github.com/linuxacademy/content-aws-essentials.
- Click Code.
- Click Download ZIP.
- Unzip the file on your computer. In the S3 folder, you should see the Test.txt file we will use in this lab.
- Click the Objects tab.
- Click Upload.
- Click Add files.

- Navigate to the folder where you downloaded your Test.txt file, and click on the file.
- Click Open. Alternatively, you can drag and drop the file into the console.
- Click Upload.
- Once the upload is complete, click Close.



us-east-1.console.aws.amazon.com/s3/upload/mycloudbucket123890?region=us-east-1&bucketType=general

Amazon S3 > Buckets > mycloudbucket123890 > Upload

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 (0)

All files and folders in this table will be uploaded.

□	Name	Folder	Type	Size

No files or folders

You have not chosen any files or folders to upload.

Destination Info

Destination

s3://mycloudbucket123890

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

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

▶ **Properties**
Specify storage class, encryption settings, tags, and more.

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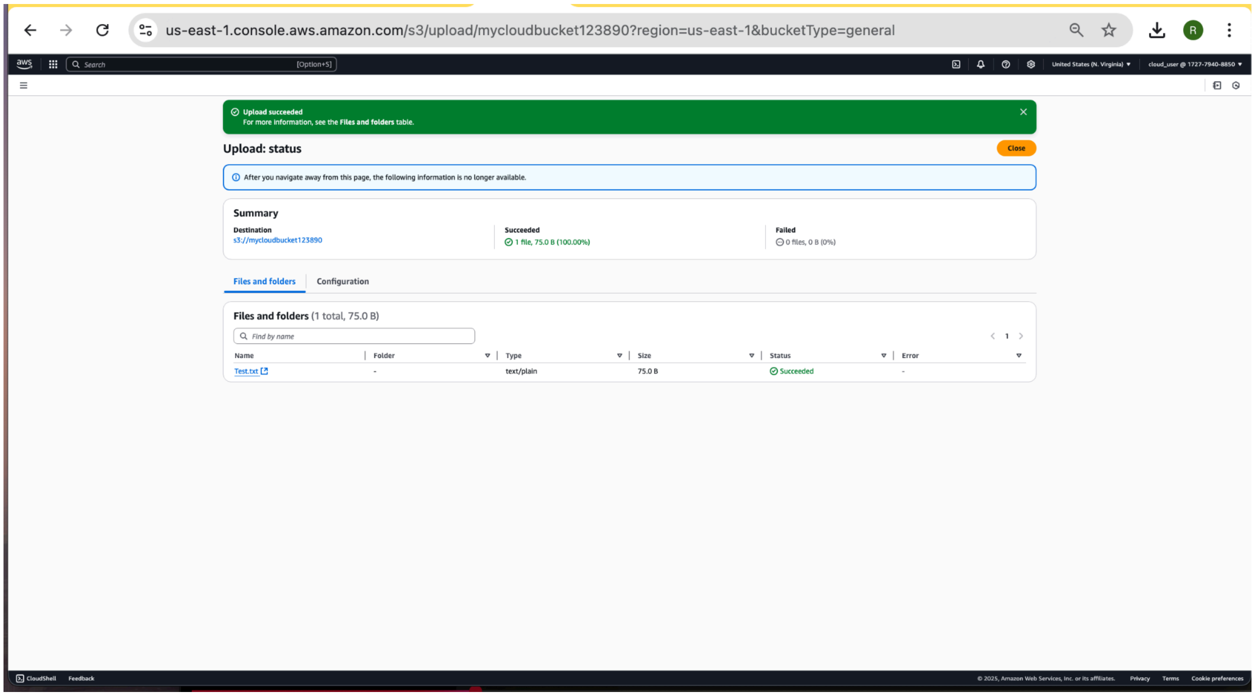
us-east-1.console.aws.amazon.com/s3/upload/mycloudbucket123890?region=us-east-1&bucketType=general
Search [Option+S]
United States (N. Virginia)
cloud_user @ 1727-7940-8850
Close
Files and folders
Configuration
Find by name
CloudShell
Feedback
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Cookie preferences

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

Upload: status

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

Summary

Destination	Succeeded	Failed
s3://mycloudbucket123890	1 file, 75.0 B (100.00%)	0 files, 0 B (0%)

Files and folders (1 total, 75.0 B)

Name	Folder	Type	Size	Status	Error
Test.txt	-	text/plain	75.0 B	Succeeded	-

Upload Second Version of the Same File

- On your computer, open the Test.txt file in a text editor program, such as Notepad, and change the text in the file.

- Save the changed file.
- Return to the console showing our new bucket.
- Click Upload.
- Click Add files.
- Navigate to the folder where you saved the changed Test.txt file, and click on the file.
- Click Open.
- Click Upload.

Once the upload is complete, click Close.Click the checkbox next to the Test.txt file in the bucket and click the Open button. It should open in a new tab and show the new text that you entered into the file.

Return to the bucket and click on the Test.txt file.Click on the Versions tab.

- Click the checkbox next to the earlier version of the file, and then click Download.
- Click the Objects tab.
- Click Add files.
- Navigate to the folder where you downloaded your Test.txt file, and click on the file.
- Click Open. Alternatively, you can drag and drop the file into the console.
- Click Upload.
- Once the upload is complete, click Close.
- Click the checkbox next to the Test.txt file in the bucket and click the Open button. It should open in a new tab and show the previous version of the text before it was edited.