My First S3 Bucket

Introduction

What is an Amazon S3?

An Amazon S3 stands for **Simple Storage Service**. An Amazon S3 is also called Object storage. You can access, store, back up and retrieve any amount of data from anywhere at any time.

You can get started with Amazon **S3** by working with buckets and objects. A *bucket* is a container for objects. An **object** is a file and any metadata that describes that file.

When you sign up for AWS, your AWS account is automatically signed up for all services in AWS, including Amazon **S3**. You are charged only for the services that you use.

With Amazon **S3**, you pay only for what you use. To set up Amazon **S3**, use the steps in the following sections.

To create a Simple storage service S3 Bucket we have to sign in AWS Management Account.

Sign up for an AWS account

If you do not have an AWS account, complete the following steps to create one.

To sign up for an AWS account

1. Open https://portal.aws.amazon.com/billing/signup.
2. Follow the online instructions.

   Part of the sign-up procedure involves receiving a phone call and entering a verification code on the phone keypad.

   When you sign up for an AWS account, an AWS account root user is created. The root user has access to all AWS services and resources in the account.

3. Now we will discuss the steps to create this AWS **S3** bucket. These steps are given below:

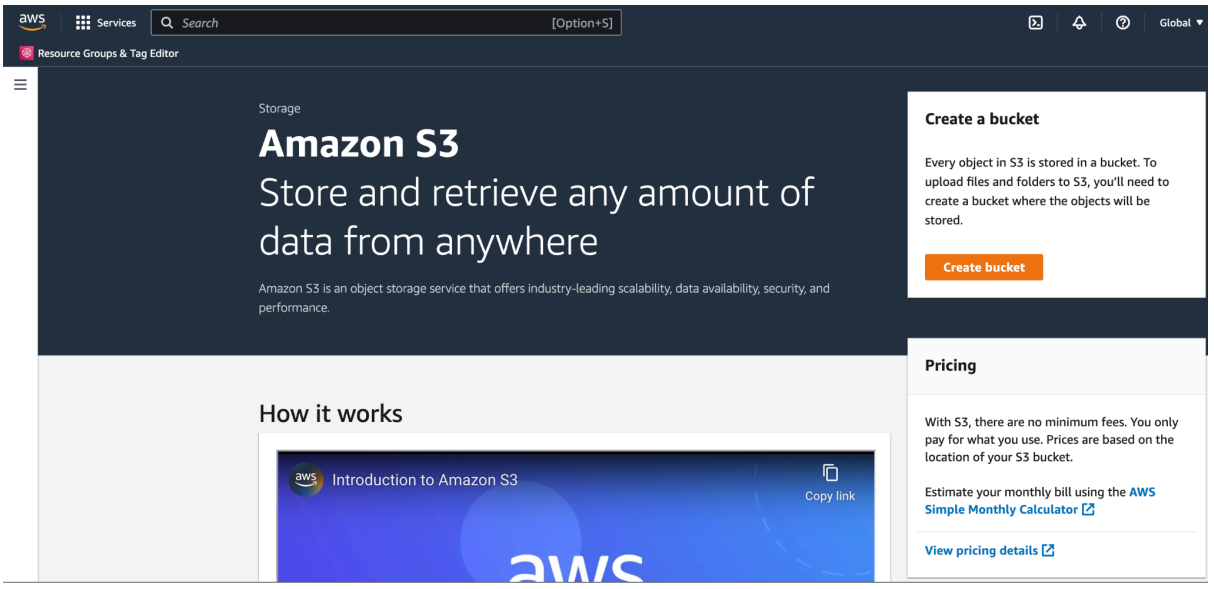
Step 1: Create your first S3 bucket

After you sign up for AWS, you're ready to create a bucket in Amazon **S3** using the AWS Management Console. Every object in Amazon **S3** is stored in a *bucket*. Before you can store data in Amazon **S3**, you must create a bucket.

Note: *You are not charged for creating a bucket. You are charged only for storing objects in the bucket and for transferring objects in and out of the bucket.*

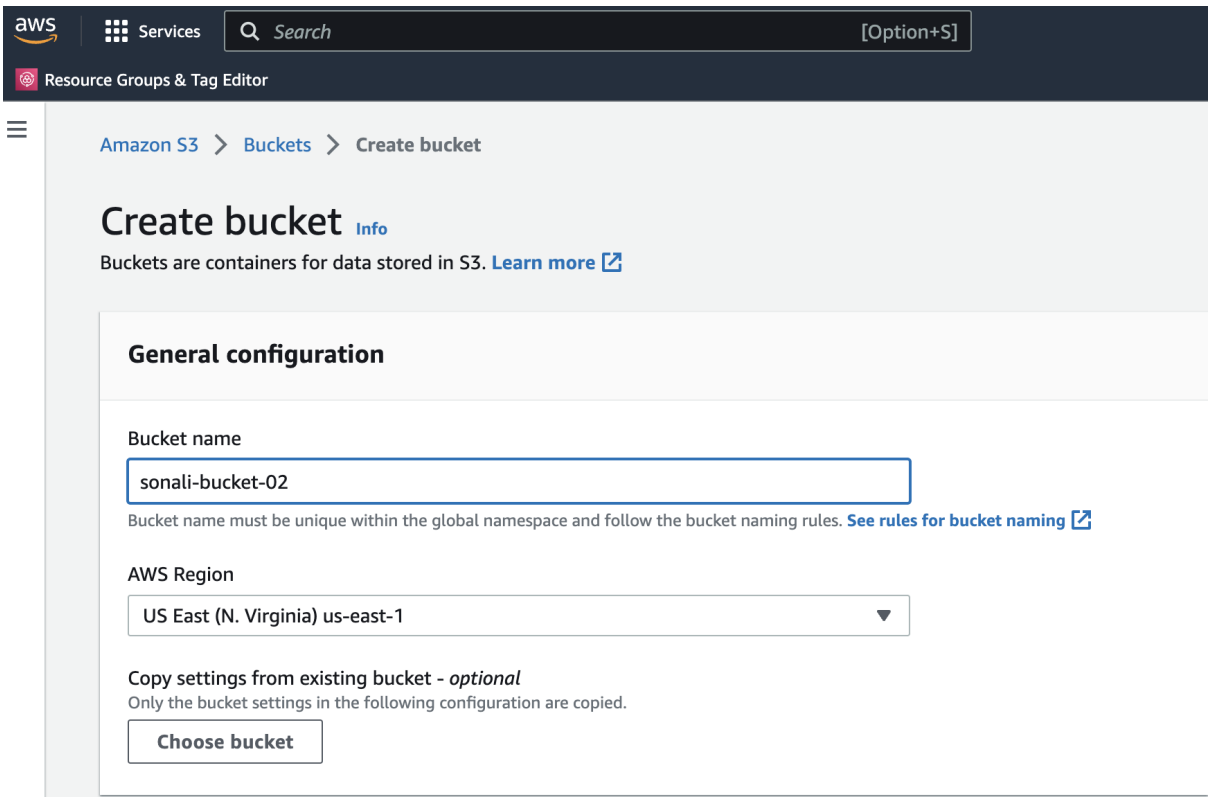
The steps to create **Bucket** in Amazon **S3** are given below *:*

1. Sign in to the **AWS Management Console** and open the Amazon **S3** console at https://console.aws.amazon.com/s3/.
2. In the left navigation pane, choose **Buckets**.



3. Choose to Create **bucket**.

   The Create **Bucket** page opens.



4. For **Bucket name**, enter a name for your **bucket**.

   The **bucket name** must:

   a. Be unique across all AWS accounts in all the AWS Regions. Be unique within a partition. A partition is a grouping of **Regions**. AWS currently has three partitions: aws (Standard Regions), aws-cn (China Regions), and aws-us-gov (AWS GovCloud (US) Regions).
   b. Be between 3(Min) and 63(Max) characters long.
   c. Consist only of lowercase letters, numbers, dots (.), and hyphens (-). For best compatibility, we recommend that you avoid using dots (.) in bucket names, except for buckets that are used only for static website hosting.

d. Begin and end with a letter or number.

   After you create the **bucket**, you cannot change its name due to its naming rule.

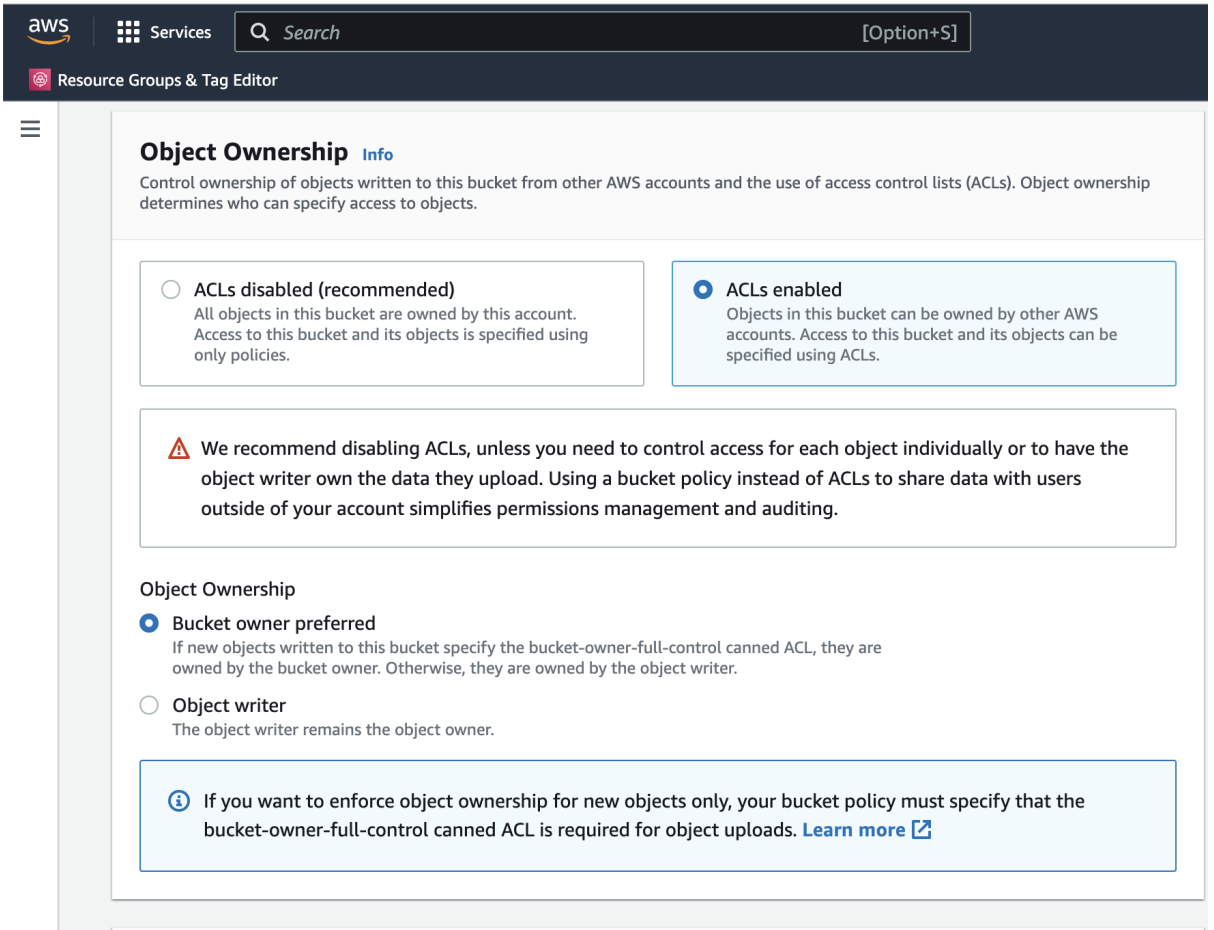
   Important

   Avoid including sensitive information, such as account numbers, in the bucket name. The bucket name is visible in the URLs that point to the objects in the bucket.

5. For **Region**, choose the AWS Region where you want the bucket to reside.

   To minimise latency and costs and address regulatory requirements, choose a Region close to you. Objects stored in a Region never leave that Region unless you explicitly transfer them to another Region.

6. Under **Object Ownership**, to disable or enable **ACLs** and control ownership of objects uploaded in your **bucket**, choose one of the following settings:



ACLs disabled

- **Bucket owner enforced (default)** – ACLs are disabled, and the bucket owner automatically owns and has full control over every object in the bucket. ACLs no longer affect access permissions to data in the **S3** bucket. The bucket uses policies exclusively to define access control.

By default, ACLs are disabled. A majority of modern use cases in Amazon **S3** no longer require the use of ACLs. We recommend that you keep ACLs disabled, except in unusual circumstances where you must control access for each object individually.

(What is an ACLs ?? Amazon **S3** access control lists (ACLs) enable you to manage access to buckets and objects. Each bucket and object has an ACL attached to it as a subresource. It defines which AWS accounts or groups are granted access and the type of access. When a request is received against a resource, Amazon **S3** checks the corresponding ACL to verify that the requester has the necessary access permissions.)

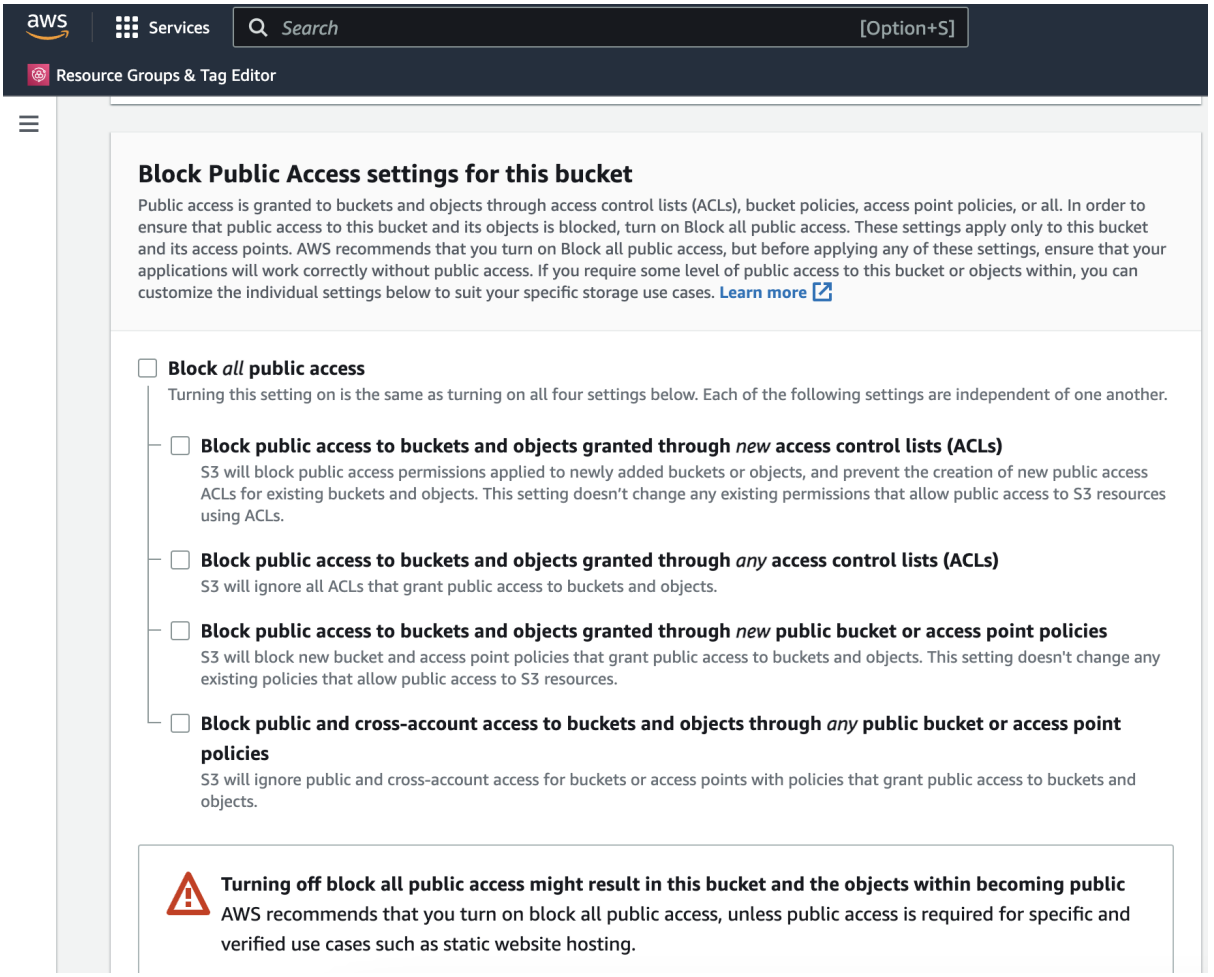
ACLs enabled

- **Bucket owner preferred** – The bucket owner owns and has full control over new objects that other accounts write to the bucket with the bucket-owner-full-control canned ACL.
  If you apply the **Bucket owner preferred** setting, to require all Amazon **S3** uploads to include the bucket-owner-full-control canned ACL,
- **Object writer** – The AWS account that uploads an object owns the object, has full control over it and can grant other users access to it through ACLs.

Note

The default setting is Bucket owner enforced. To apply the default setting and keep ACLs disabled, only the `s3:CreateBucket` permission is needed. To enable ACLs, you must have the `s3:PutBucketOwnershipControls` permission.

7. Under **Block Public Access settings for this bucket**, choose the Block Public Access settings that you want to apply to the bucket.
   By default, all four Block Public Access settings are enabled. We recommend that you keep all settings enabled unless you know that you need to turn off one or more of them for your specific use case.



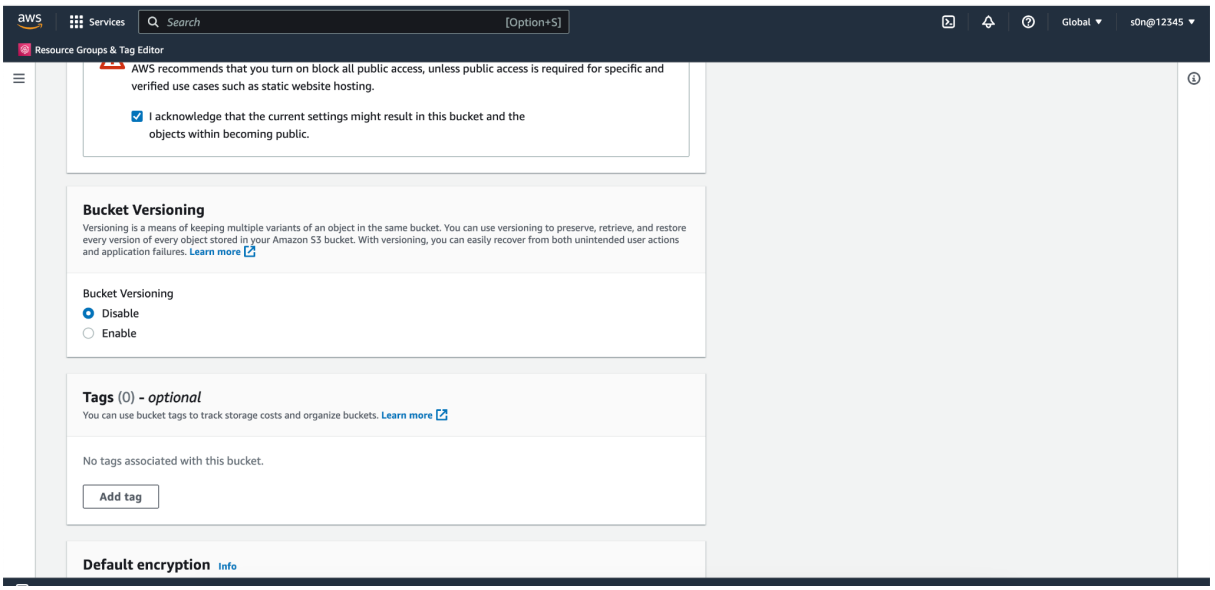
Note

To enable all Block Public Access settings, only the `s3:CreateBucket` permission is required. To turn off any Block Public Access settings, you must have the `s3:PutBucketPublicAccessBlock` permission.

8. (**Optional**) Under **Bucket Versioning**, you can choose if you wish to keep variants of objects in your bucket. (Simply put, versioning keeps different variants of the same object for backups)

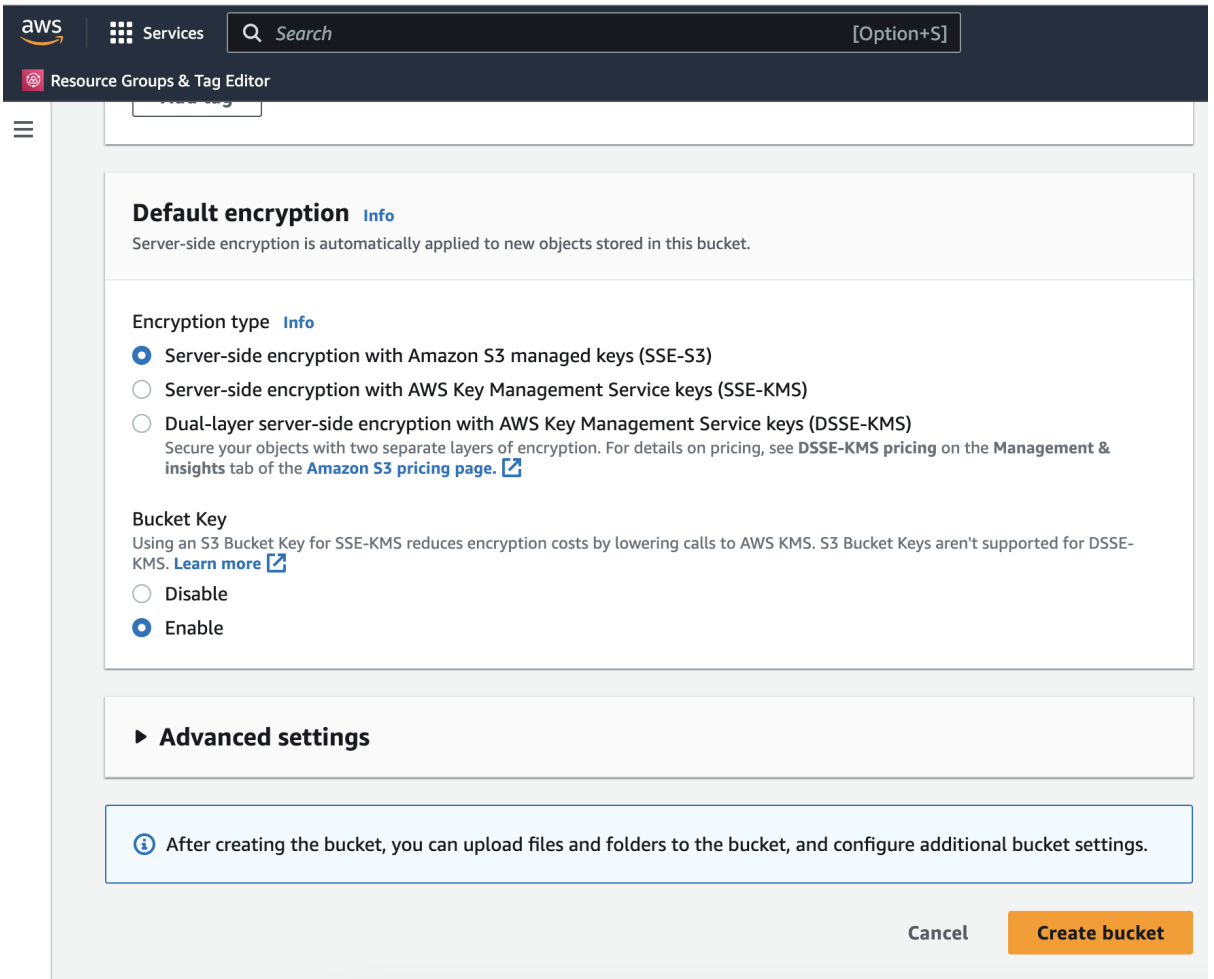
To disable or enable versioning on your bucket, choose either **Disable** or **Enable**.

9. (**Optional**) Under **Tags**, you can choose to add tags to your bucket. Tags are key-value pairs used to categorize storage.



To add a bucket **tag**, enter a **Key** and optionally a **Value** and choose **Add Tag**.

10. Under **Default encryption**, choose Edit.



11. To configure default encryption, under **Encryption type**, choose one of the following:
    a. Amazon S3 managed key (SSE-S3)
    b. AWS Key Management Service key (SSE-KMS)
    c. Buckets and new objects are encrypted with server-side encryption with an **Amazon S3-managed key** as the base level of encryption configuration.
12. If you chose the **AWS Key Management Service key (SSE-KMS)**, do the following:
    a. Under the **AWS KMS key**, specify your KMS key in one of the following ways:

i. To choose from a list of available KMS keys, choose **Choose from your AWS KMS keys**, and choose your **KMS key** from the list of available keys.

   Both the AWS-managed key (aws/s3) and your customer-managed keys appear in this list.

ii. To enter the KMS key ARN, choose to **Enter AWS KMS key ARN**, and enter your KMS key ARN in the field that appears.

iii. To create a new customer-managed key in the AWS KMS console, choose **Create a KMS key.**

13. (Optional) If you want to enable **S3** Object Lock, do the following:

    Choose Advanced Settings.

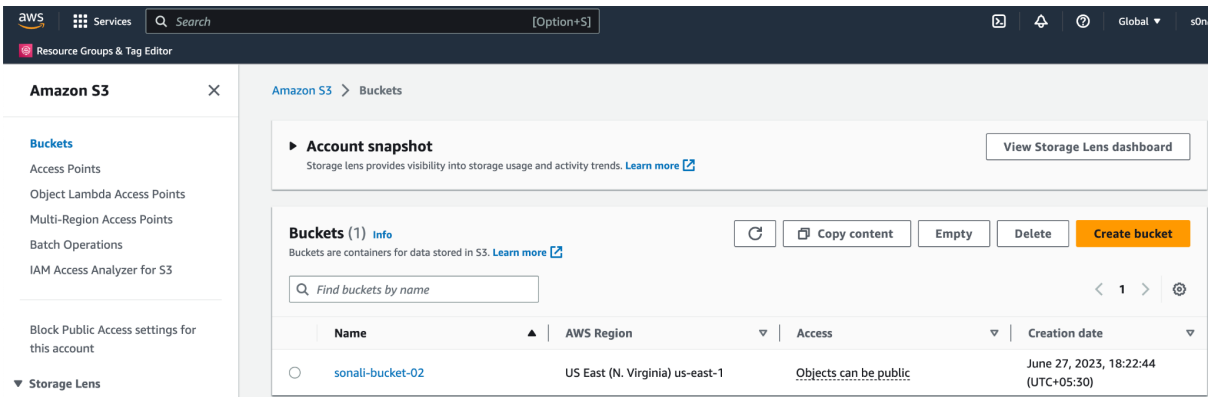
    (You can only enable Object Lock for a bucket when you create it, and you cannot disable it later. Enabling Object Lock also enables versioning for the bucket. After enabling you must configure the Object Lock default retention and legal hold settings to protect new objects from being deleted or overwritten.)

    a. If you want to enable Object Lock, choose **Enable**, read the warning that appears, and acknowledge it.

       Note

       To create an Object Lock enabled bucket, you must have the following permissions: s3:CreateBucket, s3:PutBucketVersioning and s3:PutBucketObjectLockConfiguration.

14. Choose to **Create bucket**.



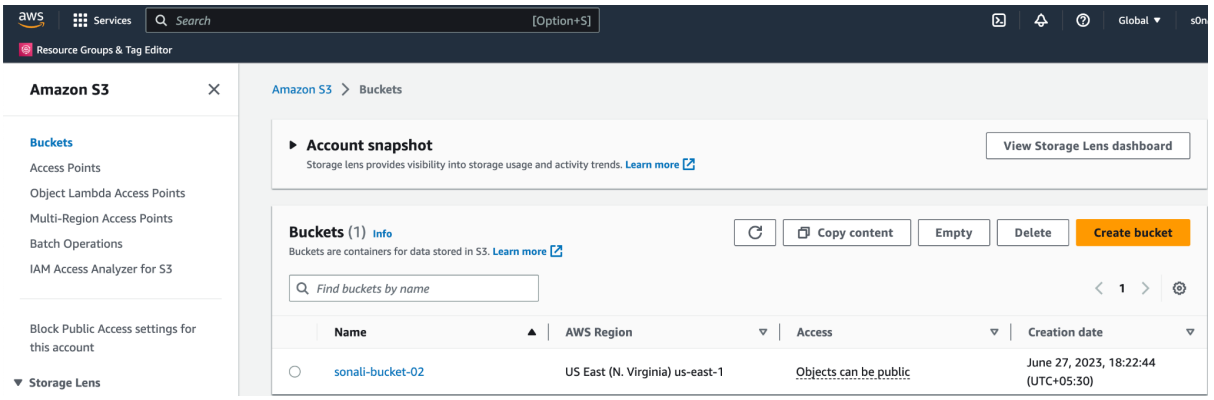
You have Successfully created a bucket in Amazon **S3**.

Step 2: Upload an object to your bucket

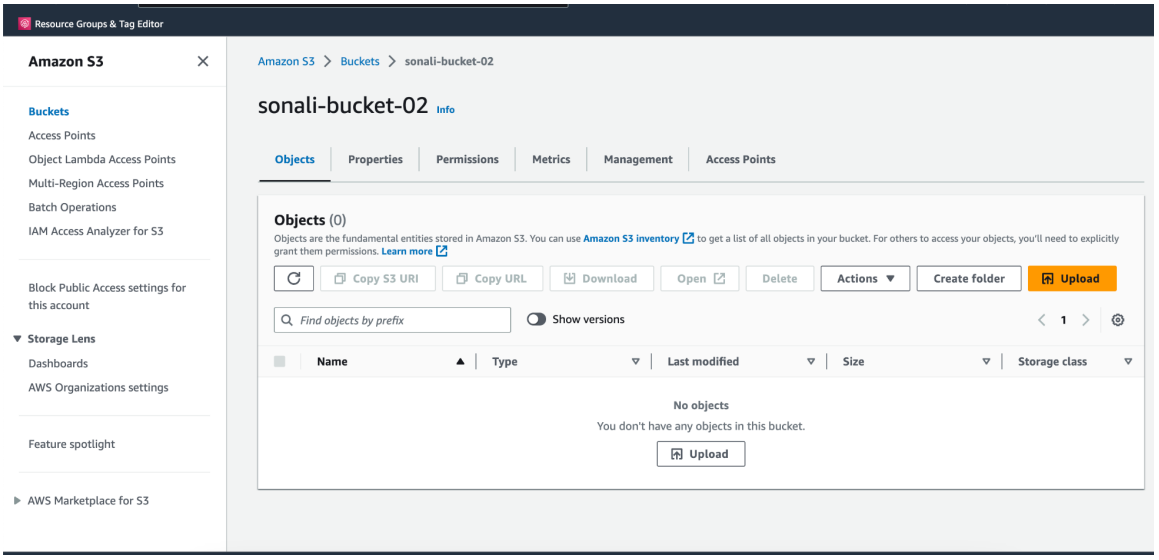
After creating a bucket in Amazon S3, you're ready to upload an object to the bucket. An object can be any kind of file: a text file, a photo, a video, and so on.

To upload an object to a bucket

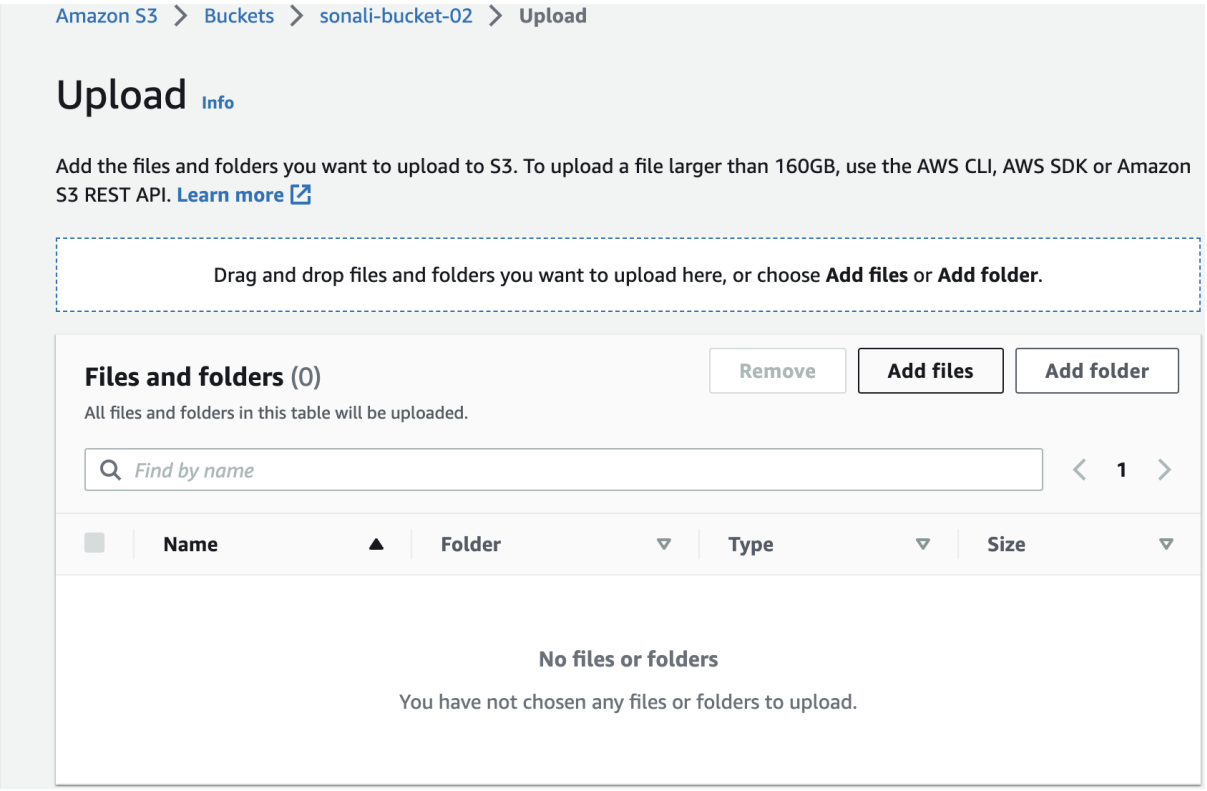
1. Open the Amazon **S3** console at https://console.aws.amazon.com/s3/.
2. In the **Buckets** list, choose the name of the bucket that you want to upload your object to.



3. On the **Objects** tab for your bucket, choose **Upload.**

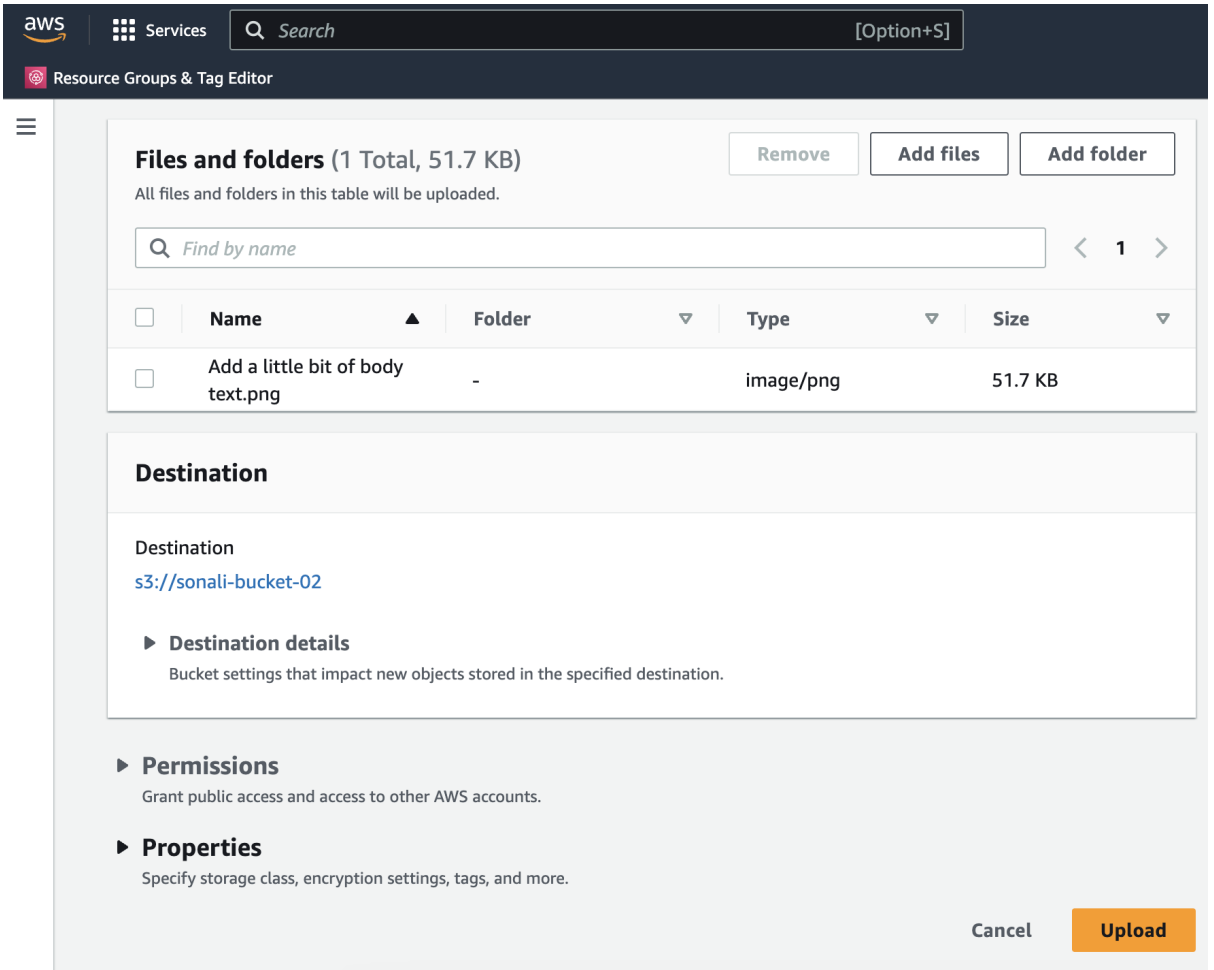


4. Under **Files and Folders**, choose **Add Files**.



5. Choose a file to upload, and then choose **Open**.

6. Choose **Upload.**



You've successfully uploaded an object to your bucket.

Step 3: Download an object

After you upload an object to a bucket, you can view information about your object and download the object to your local computer.

Using the S3 console

This section explains how to use the Amazon S3 console to download an object from an S3 bucket using a pre-signed URL.

Note: *You can only download one object at a time.*

To download an object from an S3 bucket

1. Sign in to the AWS Management Console and open the Amazon S3 console at https://console.aws.amazon.com/s3/.
2. In the **Buckets** list, choose the name of the bucket that you want to download an object from.
3. You can **download** an object from an **S3** bucket in any of the following ways:
    - Select the object and choose **Download** or choose **Download** from the Actions menu if you want to download the object to a specific folder.
    - If you want to download a specific version of the object, select the Show **Versions** button. Select the version of the object that you want and choose **Download** or choose **Download** from the **Actions** menu if you want to download the object to a specific folder.

You have successfully downloaded your object.

Step 4: Copy your object to a folder

You've already added an object to a bucket and downloaded the object. Now, you create a folder and copy the object and paste it into the folder.

To copy an object to a folder

1. In the **Buckets** list, choose your **bucket name**.
2. Choose **Create folder** and configure a new folder:
    a. Enter a folder name (for example, favorite-pics).
    b. For the folder encryption setting, choose **Disable**.
    c. Choose **Save**.
3. Navigate to the Amazon **S3** bucket or folder that contains the objects that you want to copy.
4. Select the check box to the left of the names of the objects that you want to copy.

5. Choose **Actions** and choose **Copy** from the list of options that appears. Alternatively, choose **Copy** from the options in the upper right.
6. Choose the destination folder:
    a. Choose **Browse S3**.
    b. Choose the option button to the left of the folder name.
       To navigate into a folder and choose a subfolder as your destination, choose the folder name.
    c. **Choose destination**.
7. The path to your destination folder appears in the **Destination** box. In **Destination**, you can alternately enter your destination path, for example, s3://*bucket-name*/*folder-name*/.
8. In the bottom right, choose **Copy**.
   Amazon **S3** copies your objects to the destination folder.

Step 5: Delete your objects and bucket

When you no longer need an object or a bucket, we recommend that you delete them to prevent further charges. If you completed this getting started walkthrough as a learning exercise, and you don't plan to use your bucket or objects, we recommend that you delete your bucket and objects so that charges no longer accrue.

Before you delete your bucket, empty the bucket or delete the objects in the bucket. After you delete your objects and bucket, they are no longer available.

If you want to continue to use the same bucket name, we recommend that you delete the objects or empty the bucket, but don't delete the bucket. After you delete a bucket, the name becomes available to reuse. However, another AWS account might create a bucket with the same name before you have a chance to reuse it.

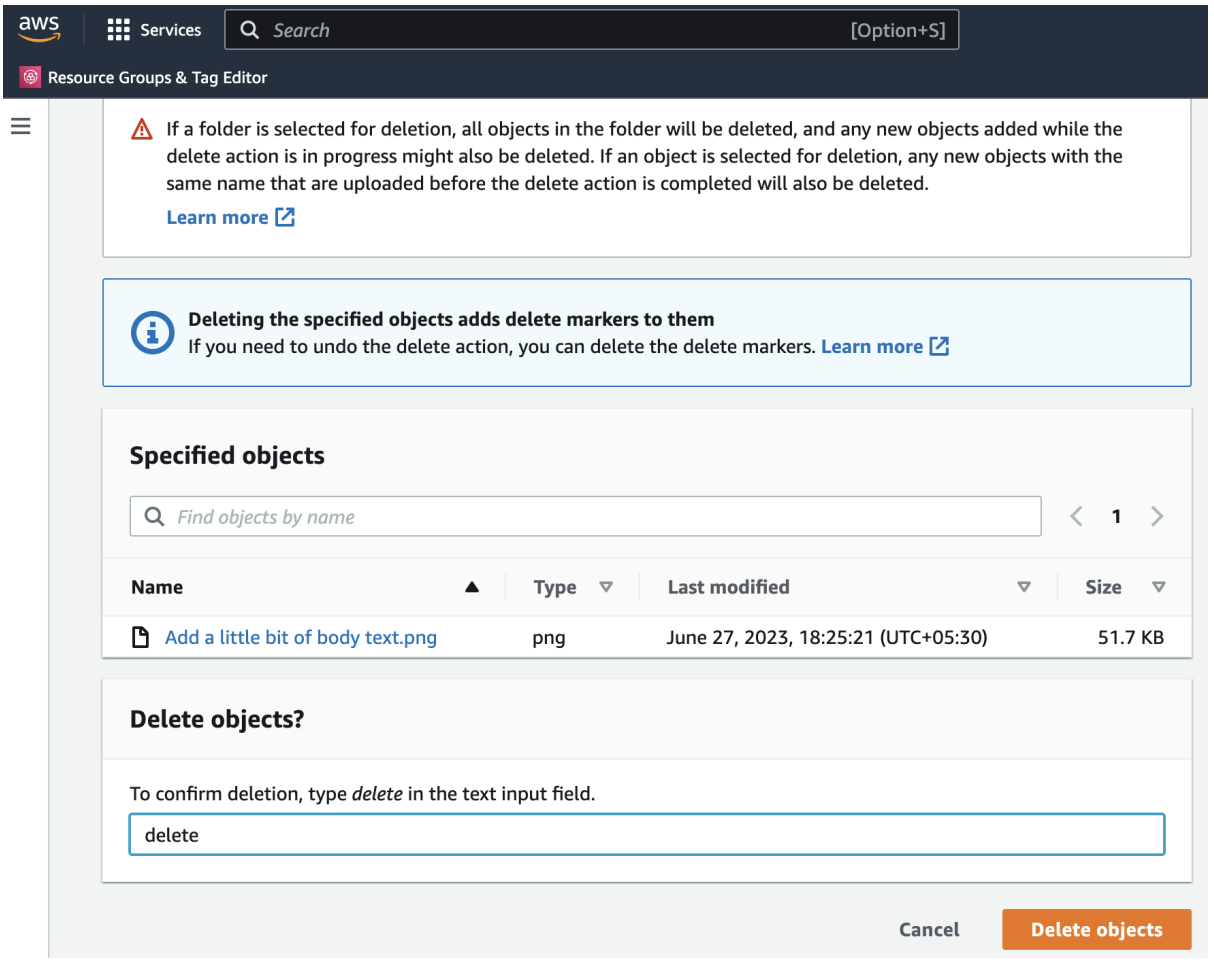
Topics

- Deleting an object
- Emptying your bucket
- Deleting your bucket

Deleting an object

If you want to choose which objects you delete without emptying all the objects from your bucket, you can delete an object.

1. In the **Buckets list**, choose the name of the bucket that you want to delete an object.
2. Select the **object** that you want to delete.
3. Choose **Delete** from the options in the upper right.
4. On the **Delete Objects** page, type **delete** to confirm the deletion of your objects.
5. Choose to **Delete objects**.



You have successfully deleted the object.

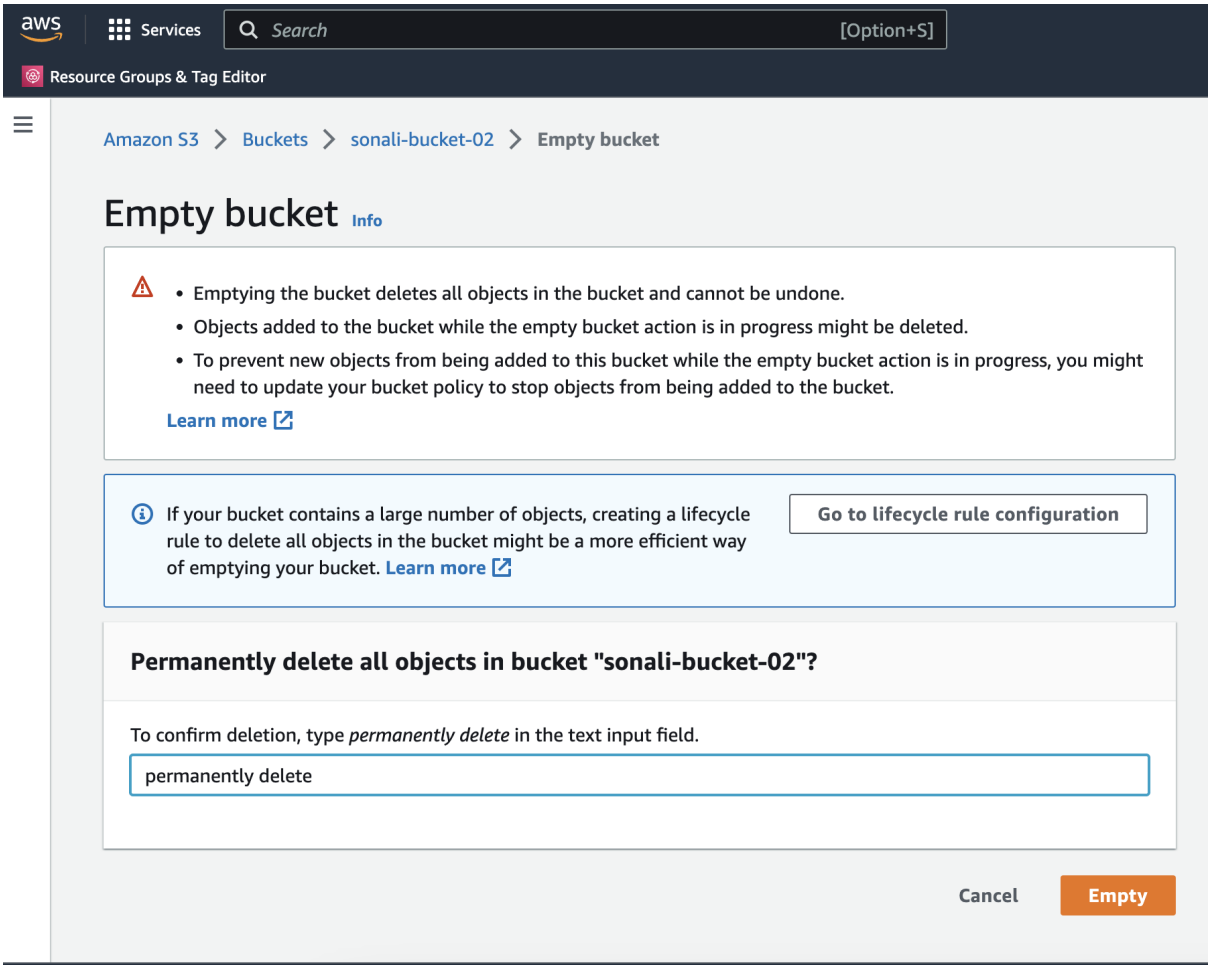
Emptying your bucket

If you plan to delete your bucket, you must first empty your bucket, which deletes all the objects in the bucket.

To empty a bucket

In the **Buckets** list, select the bucket you want to empty, then choose **Empty**.

To confirm that you want to empty the bucket and delete all the objects in it, in the **Empty bucket**, type **permanently delete**.



Emptying the bucket cannot be undone. Objects added to the bucket while the empty bucket action is in progress will be deleted.

1. To empty the bucket and delete all its objects, choose **Empty**.

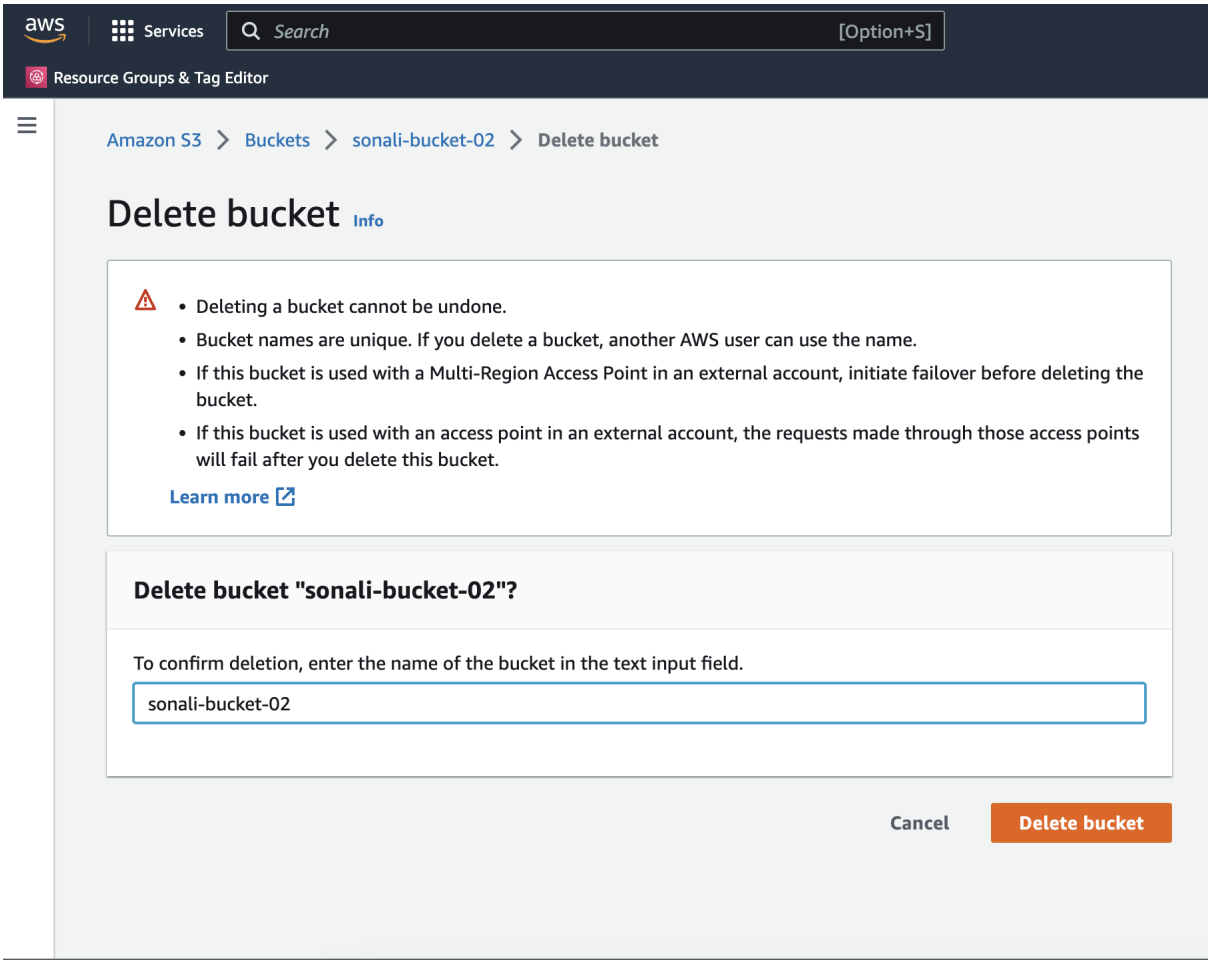
   An **Empty bucket: A status** page opens that you can use to review a summary of failed and successful object deletions.

   To return to your bucket list, choose **Exit**.

Deleting your bucket

After you empty your bucket or delete all the objects from your bucket, you can delete your bucket.

1. To delete a bucket, in the **Buckets** list, select the bucket.
2. Choose **Delete**.
3. To confirm the deletion, in the **Delete bucket**, type the bucket's name.



Important

Deleting a bucket cannot be undone. Bucket names are unique. If you delete your bucket, another AWS user can use the name. If you want to continue to use the same bucket name, don't delete your bucket. Instead, empty and keep the bucket.

4. To delete your bucket, choose **Delete bucket.**

This is the information about how to create the **First Amazon S3 bucket** in AWS.

Conclusion

Congratulations on creating your First S3 bucket. In this guide, we have covered the steps of creating an Amazon S3 bucket.S3 offers a robust and flexible solution for storing and managing your data in the cloud with a wide range of features and options to meet your specific need. Enjoy the harnessing power of Amazon S3 for your storage needs.