



lab



lab title

Amazon Simple Storage Service (S3)
V1.02



Course title

BackSpace Academy
AWS Certified Associate



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About the Lab

Please note that not all AWS services are supported in all regions. Please use the US-East-1 (North Virginia) region for this lab.

These lab notes are to support the AWS S3 lab of the AWS Certified Cloud Practitioner Course.

Please note that AWS services change on a weekly basis and it is extremely important you check the version number on this document to ensure you have the latest version with any updates or corrections.

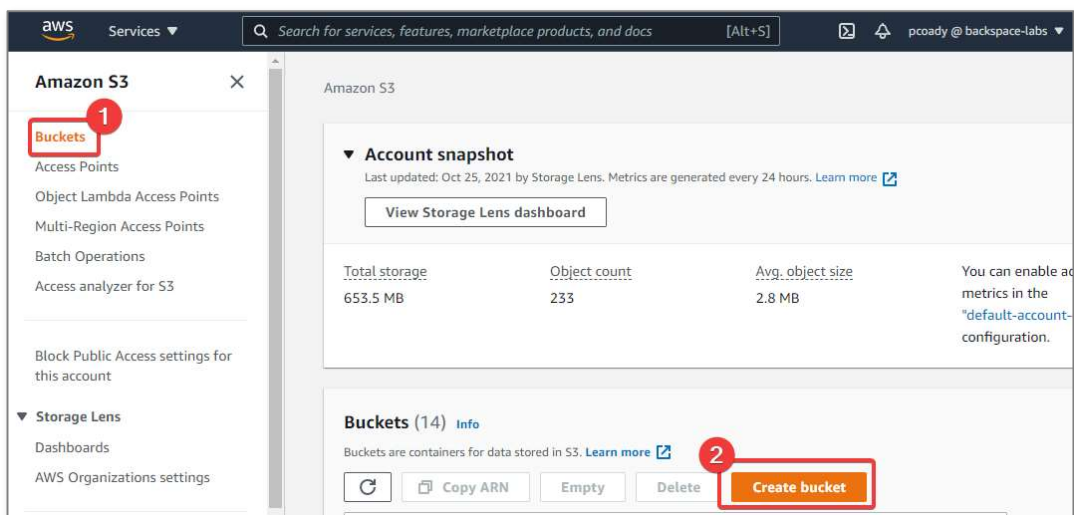
Using Versioning on an S3 Bucket

In this section, we will enable and use versioning on an S3 bucket.

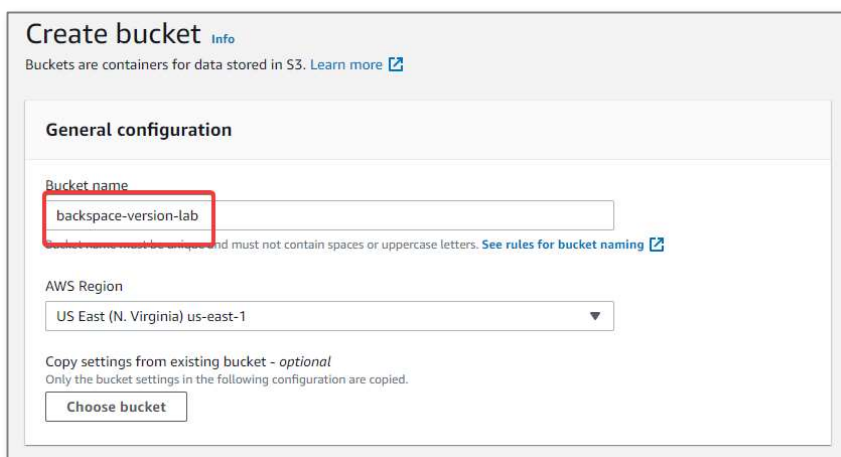
Go to the *Amazon S3* console

Select *Buckets*

Click *Create bucket*



Give the bucket a unique name



Enable *Bucket Versioning*

Bucket Versioning

Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. [Learn more](#)

Bucket Versioning

☐ Disable

☒ **Enable**

Scroll down and click *Create bucket*

☐ Enable

► **Advanced settings**

After creating the bucket you can upload files and folders to the bucket, and configure additional bucket settings.

Cancel **Create bucket**

Create and save a file with Notepad or similar text editor with contents *This is version 1*



Click the bucket to open the bucket details

Click *Upload*

Amazon S3 > backspace-version-lab

backspace-version-lab Info

Objects Properties Permissions Metrics Management Access Points

Objects (0)

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. To allow others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Refresh Copy S3 URI Copy URL Download Open Delete

Actions ▼ Create folder **Upload**

Drag and Drop the text file

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 SDK or Amazon S3 REST API. [Learn more](#)

Drag and drop files and folders you want to upload here, or choose **Add files**, or **Add folders**.

Files and folders (1 Total, 19.0 B)

All files and folders in this table will be uploaded.

Find by name

| <input type="checkbox"/> | Name | Folder | Type | Size |
|--------------------------|----------|--------|------------|--------|
| <input type="checkbox"/> | text.txt | - | text/plain | 19.0 B |

Click Upload

► **Properties**

Specify storage class, encryption settings, tags, and more.

Cancel **Upload**

Click *Close*

Upload succeeded
View details below.

Upload: status Close

The information below will no longer be available after you navigate away from this page.

Summary

| | | |
|---|---------------------------------------|-----------------------------|
| Destination s3://backspace-version-lab | Succeeded 1 file, 19.0 B (100.00%) | Failed 0 files, 0 B (0%) |
|---|---------------------------------------|-----------------------------|

Files and folders | Configuration

Files and folders (1 Total, 19.0 B)

Find by name

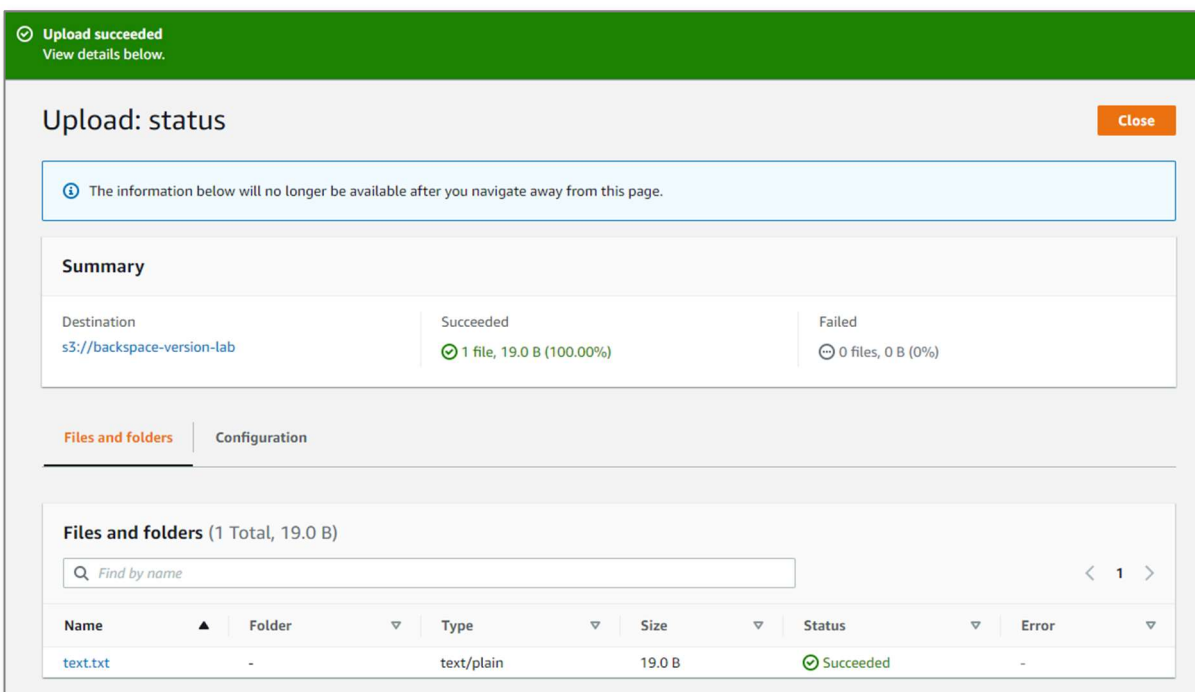
| Name | Folder | Type | Size | Status | Error |
|----------|--------|------------|--------|-----------|-------|
| text.txt | - | text/plain | 19.0 B | Succeeded | - |

Change the file to *This is version 2* and save

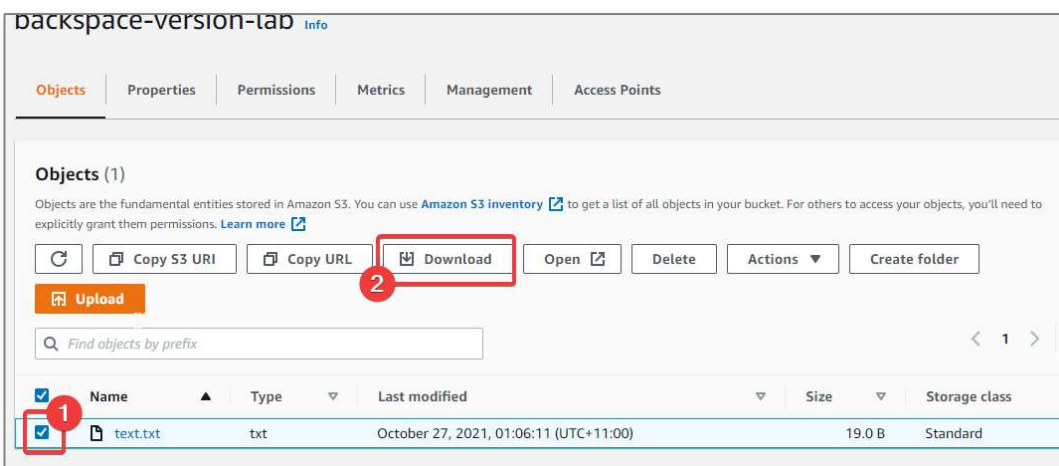


Upload to S3 again

Click *Close*



Select file and click *Download*



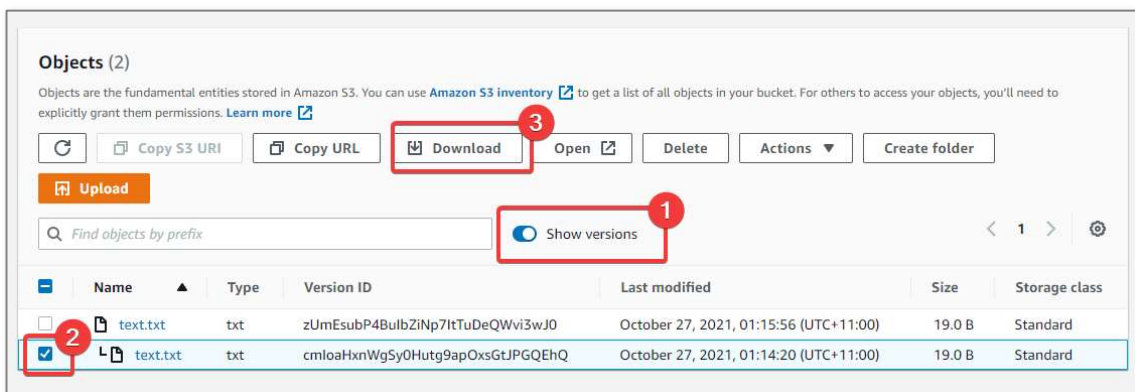
Open file and check that this is version 2



Select *Show versions*

Select the old version

Click *Download*

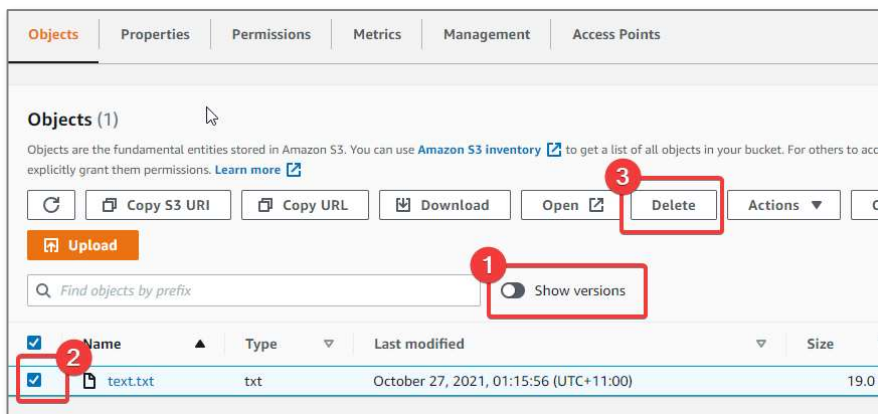


Open to see the old version

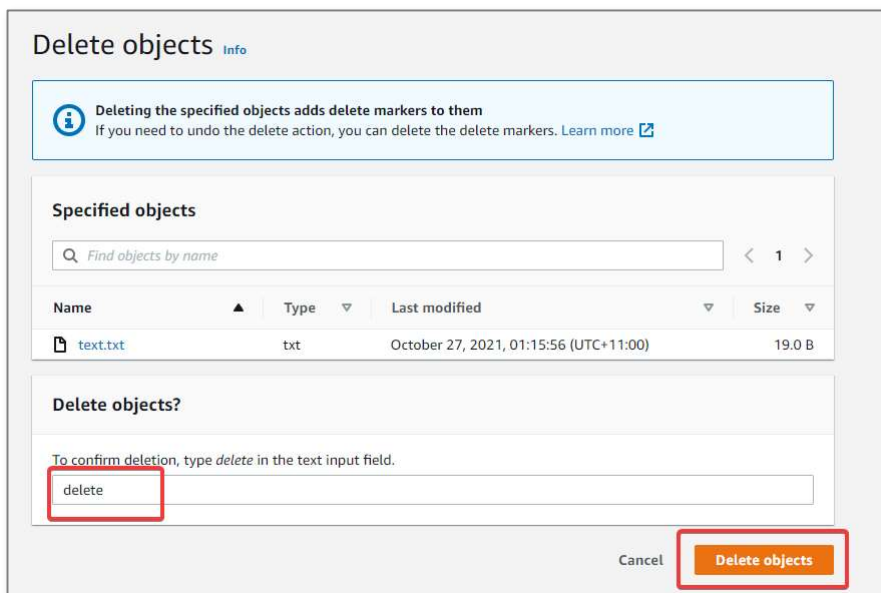


Disable *Show versions*

Delete the object



Click *Delete objects*



Click Close

Enable Show versions

Select and delete the Delete marker

Objects (3)

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 ☒ Show versions

| <input type="checkbox"/> | Name | Type | Version ID | Last modified | Size | Storage class |
|-------------------------------------|----------|---------------|----------------------------------|--|--------|---------------|
| <input checked="" type="checkbox"/> | text.txt | Delete marker | tSn1iHXMxSY7_11700UyH.ifA22o6qBb | October 27, 2021, 01:25:16 (UTC+11:00) | 0 B | - |
| <input type="checkbox"/> | text.txt | txt | zUmEsubP4BulbZiNp7ItTuDeQWvi3wJ0 | October 27, 2021, 01:15:56 (UTC+11:00) | 19.0 B | Standard |
| <input type="checkbox"/> | text.txt | txt | cmloaHxnWgSy0Hutg9apOxsGtJPGQEhQ | October 27, 2021, 01:14:20 (UTC+11:00) | 19.0 B | Standard |

Click *Delete objects*

Permanently delete objects?

To confirm deletion, type *permanently delete* in the text input field.

Click *Close*

Enable *Show versions*

The object will be undeleted

Objects (1)

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 ☒ Show versions

| <input type="checkbox"/> | Name | Type | Last modified | Size | Storage class |
|--------------------------|----------|------|--|--------|---------------|
| <input type="checkbox"/> | text.txt | txt | October 27, 2021, 01:15:56 (UTC+11:00) | 19.0 B | Standard |

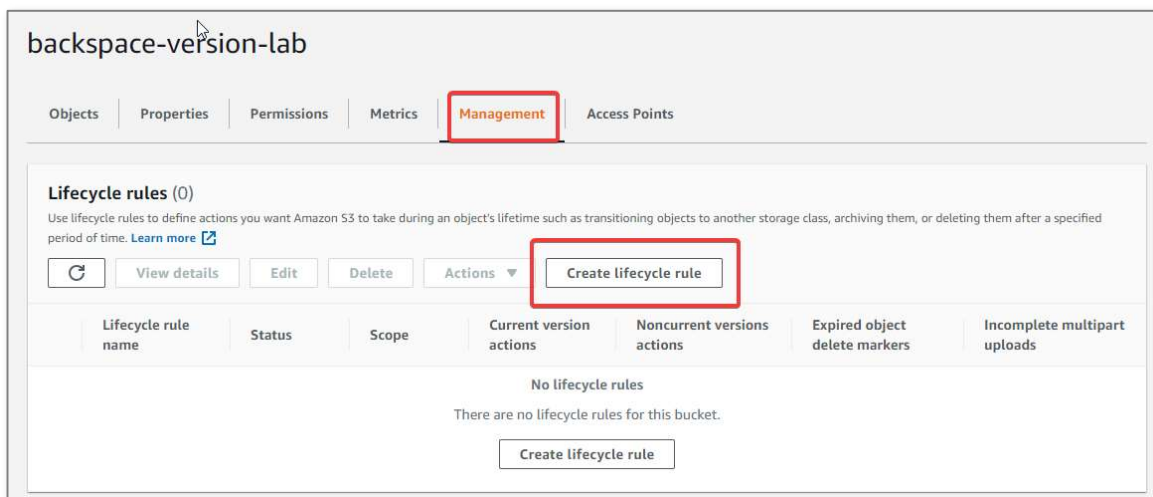
▶ Creating a LifeCycle Management Rule

In this section, we will create a lifecycle rule to migrate old data to Glacier on an S3 bucket.

Select the Bucket we created

Select the *Management* tab

Select *Create lifecycle rule*



Give the rule a name

Select *Apply to all objects in the bucket*

Check *I acknowledge that this rule will apply to all objects in the bucket.*

Create lifecycle rule

Lifecycle rule configuration

Lifecycle rule name 1

Test rule

Up to 255 characters

Choose a rule scope

☐ Limit the scope of this rule using 2 or more filters

☒ Apply to all objects in the bucket

Apply to all objects in the bucket

If you want the rule to apply to specific objects, you must use a filter to identify those objects. Choose "Limit the scope of this rule using one or more filters". [Learn more](#)

☒ I acknowledge that this rule will apply to all objects in the bucket. 3

Select *Move noncurrent versions of objects between storage classes*

Lifecycle rule actions

Choose the actions you want this rule to perform. Per-request fees apply. [Learn more](#) or see [Amazon S3 pricing](#)

☐ Move current versions of objects between storage classes

☒ Move noncurrent versions of objects between storage classes

☐ Expire current versions of objects

☐ Permanently delete noncurrent versions of objects

☐ Delete expired object delete markers or incomplete multipart uploads

When a lifecycle rule is scoped with tags, these actions are unavailable.

Transition noncurrent versions to Glacier after 90 days

Click *Create rule*

Transition noncurrent versions of objects between storage classes

Choose storage class transitions: Glacier Days after objects become noncurrent: 90 Remove

Add transition

⚠ Transitioning small objects to Glacier or Glacier Deep Archive will incur a per object cost
 You will be charged for each object you transition to S3 Glacier or S3 Glacier Deep Archive. A fixed amount of storage is also added to each object to accommodate metadata for managing the object which increases storage costs. You can reduce these costs by limiting the number of objects to transition (by prefix, tag, or version), or by aggregating objects before transitioning them. Learn more about [Glacier cost considerations](#) or review the table on Requests and data retrievals tab on the [Amazon S3 pricing page](#)

☒ I acknowledge that this lifecycle rule will incur a one-time lifecycle request cost per object if it transitions small objects.

Review transition and expiration actions

Current version actions

Day 0

No actions defined.

Noncurrent versions actions

Day 0

- Objects become noncurrent

↓

Day 90

- Objects move to Glacier

Cancel Create rule

Your rule will be *enabled*

Lifecycle configuration Info

To manage your objects so that they are stored cost effectively throughout their lifecycle, configure their lifecycle. A lifecycle configuration is a set of rules that define actions that Amazon S3 applies to a group of objects. Lifecycle rules run once per day.

Lifecycle rules (1)

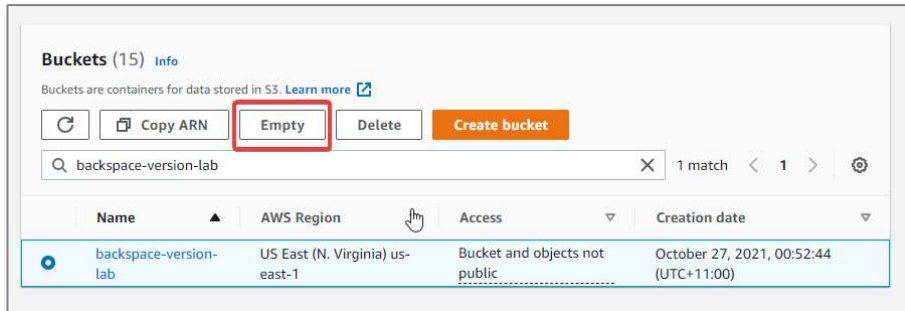
Use lifecycle rules to define actions you want Amazon S3 to take during an object's lifetime such as transitioning objects to another storage class, archiving them, or deleting them after a specified period of time. [Learn more](#)

Refresh View details Edit Delete Actions Create lifecycle rule

| Lifecycle rule name | Status | Scope | Current version actions | Noncurrent versions actions | Expired object delete markers | Incomplete multipart uploads |
|---------------------------------|----------------------|---------------|-------------------------|-----------------------------|-------------------------------|------------------------------|
| <input type="radio"/> Test rule | Enabled | Entire bucket | - | Transition to Glacier | - | - |

Clean Up

Empty the bucket



Now *Delete* the bucket

