Linux Academy

Hands-On Training

S3 Essentials

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Introduction

In this lab, we will apply the concepts discussed in the **Amazon S3** (*Simple Storage Service*) section of the **AWS Certified Solutions Architect - Associate Level** course. This lab will cover the basics of uploading objects, setting public permissions and enabling versioning.

Goals

We will introduce the core concepts of Amazon S3. You will learn how to:

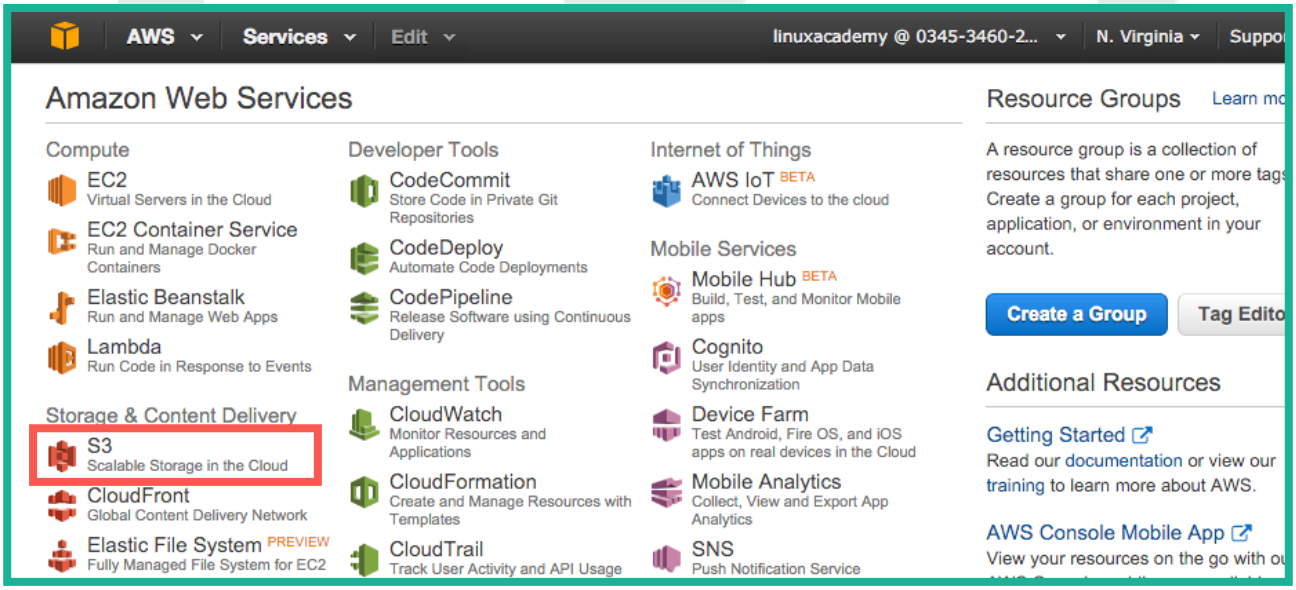
- Create an S3 bucket
- Set object permissions
- Enable and understand versioning

LiveLab Login

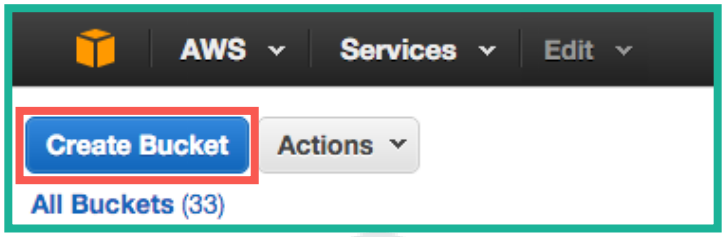
From the lab page, select **Start Lab** — it may take up to five minutes to generate your lab host. You will then be provided with a log-in link, username, and password. Log in with the given credentials, through the provided link.

Create a Bucket

From the AWS console, select the **S3** link under **Storage & Content Delivery**.



Once inside the S3 console, click on **Create Bucket**.



No two buckets can have the same name, including those owned by other accounts, though bucket names are unique to the S3 namespace. In the examples in this lab, we will be calling our bucket *linuxacademy-s3*. Replace it with your own.

Choose **US Standard** as your bucket region. Select **Create Bucket**.

Upload an Object

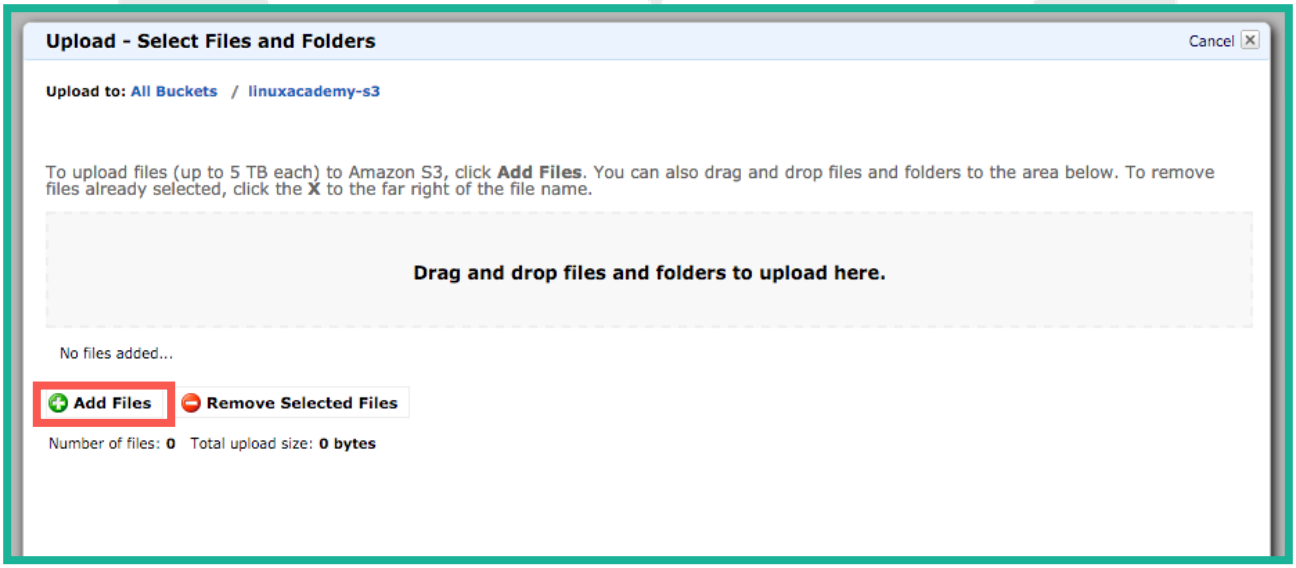
Click on your bucket name to open your bucket. A listing of all objects in your bucket namespace will appear, but, currently, this should be empty. We first need an object to upload.

To create a test object:

1. Open up your text editor of choice.
2. Add text to the file such as “my object.”
3. Save the file as *myobject.txt*.

Return to the AWS console, and make sure you are in your bucket. With your bucket open:

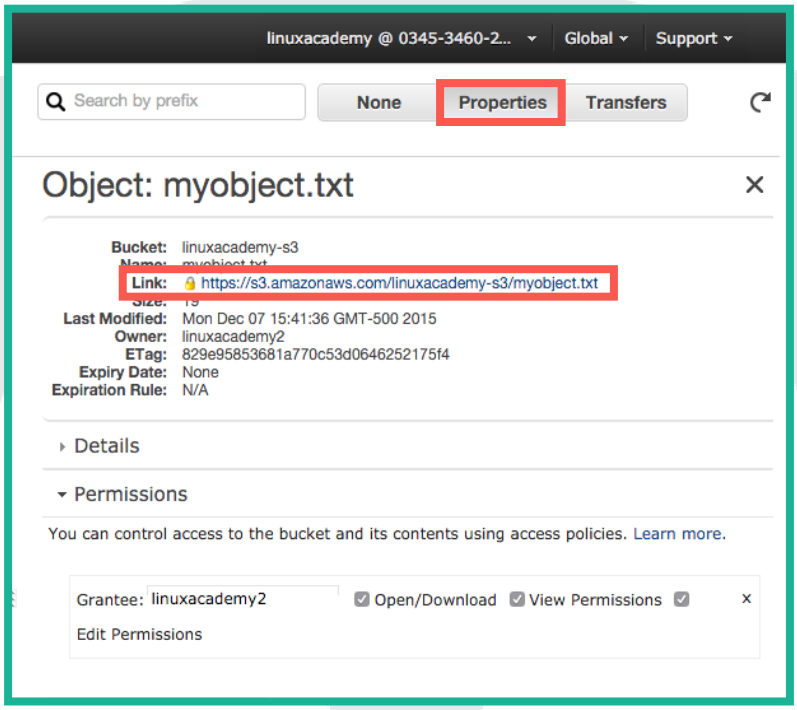
1. Select **Upload**.
2. Select **Add Files**.
3. Navigate to the save location of *myobject.txt*, and select the text file.
4. Press **Start Upload**.



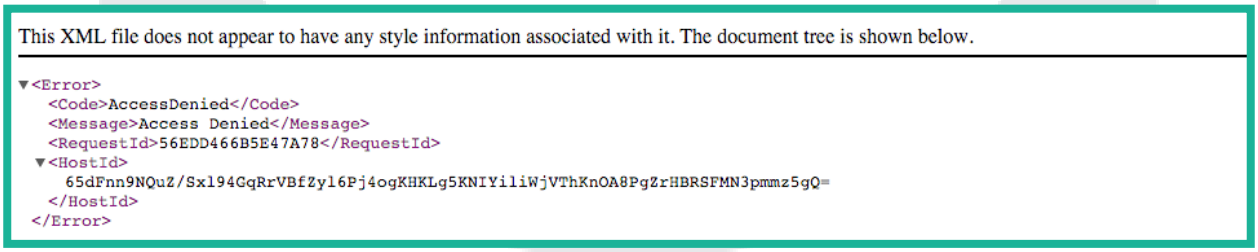
Privacy Settings

Uploaded objects are, by default, set to private. Only the owner of the object has any permissions. However, many times you may need to share an item uploaded to your bucket. This can be done by making an object publicly accessible and sharing the provided URL.

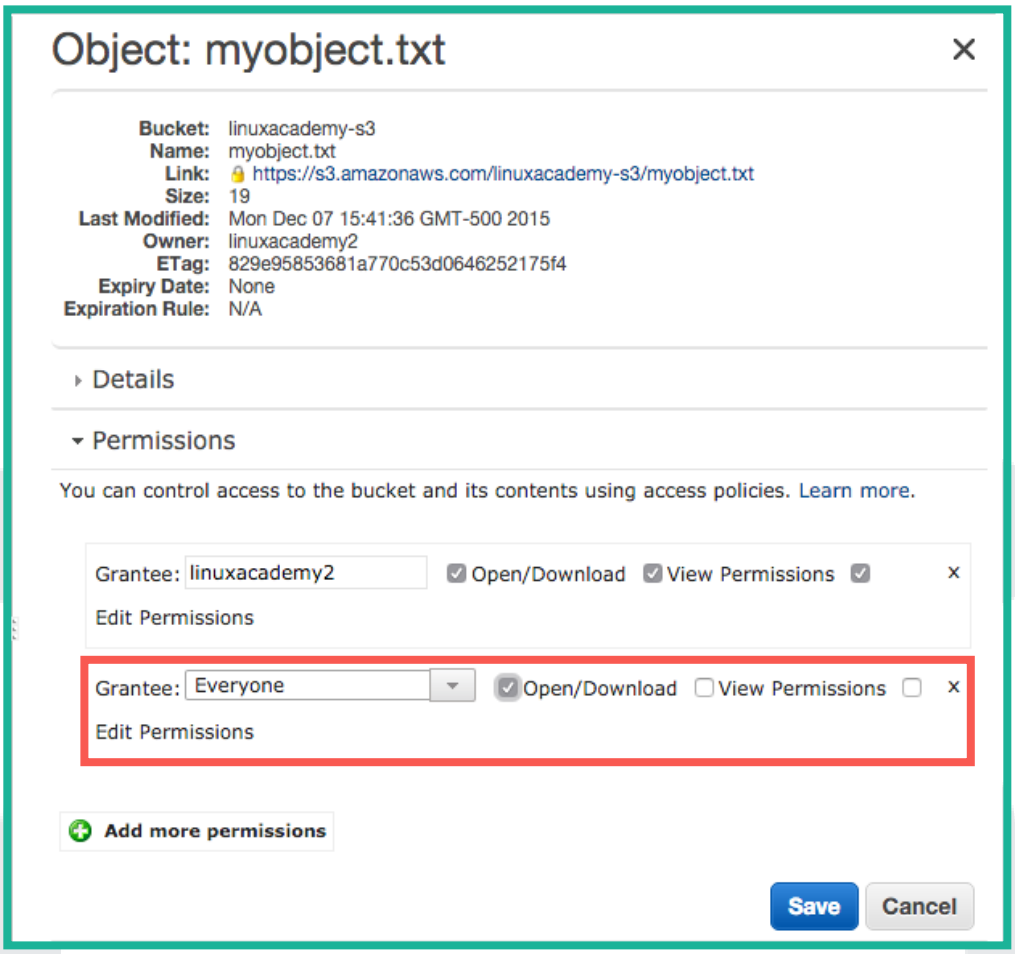
First, let's demonstrate how the default private permissions work. Select *myobject.txt* inside of your bucket, and then click on **Properties** in the upper right. A list of properties will then occupy the right side of the console. From here, you can click the **Link:** URL.



Even though you have permissions to get or delete the object, the URL is a *public URL*, so unless public permissions are given for the object, nobody, including you, can access that object via this URL. Should you try, it will result in an error:



To make the object available to the public through the URL, reopen the **Permissions** panel and select **Add More Permissions**.

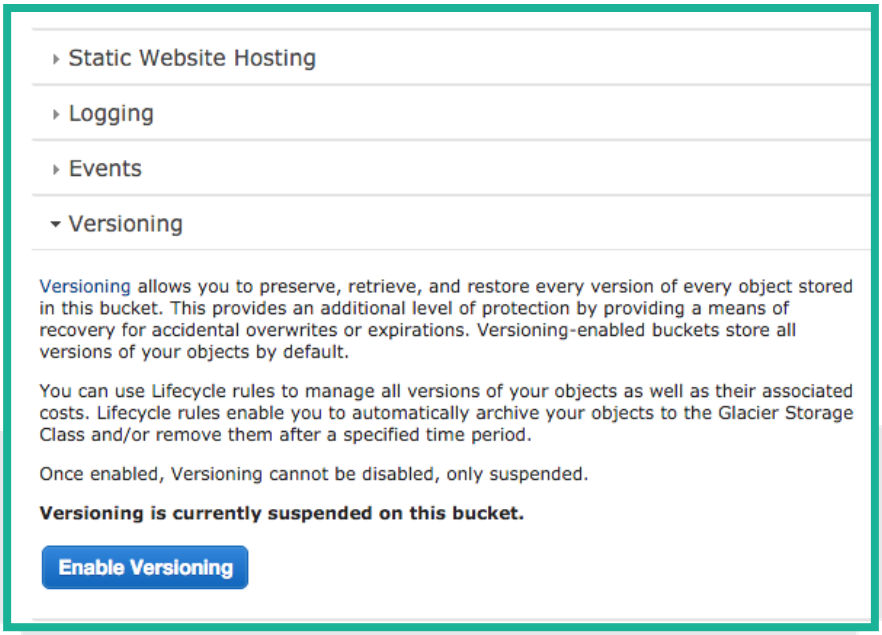


Under **Grantee**, select **Everyone**, and check the box for **Open/Download**. This grants, quite literally, everyone with access to the URL permissions to open/download the object. Save the changes.

From here, you can now visit the provided public URL, and view your object. This will be visible to anyone who receives this link. If you wish to remove public permissions, just click on the **x** located next to the permission you want to remove.

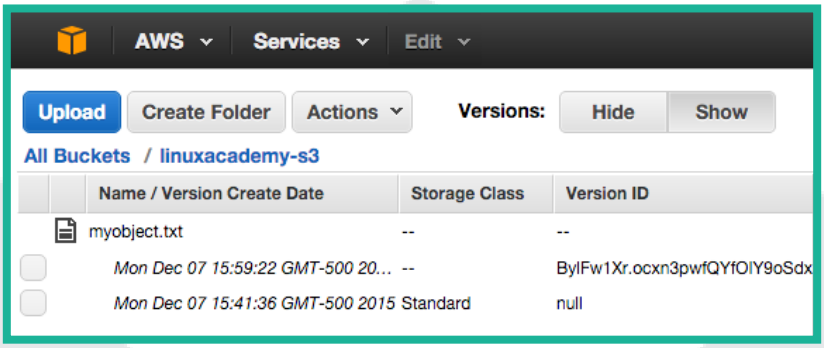
Add Version Control

We will now enable versioning control on your bucket. First, select your bucket, and then click on **Properties** in the upper-right. From here, you can choose **Versioning,** and then select **Enable Versioning**.



Once you have enabled versioning on a bucket, you cannot disable it; you can only suspend versioning.

To demonstrate versioning, from your bucket, select *myobject.txt*. Right click, then delete the object. You'll notice the message, "The bucket linuxacaemy-s3 is empty." However, because we have versioning enabled, S3 is storing all edit-to-edit versions of an object — this includes deleted objects. To enable the viewing of different versions (including deleted files) while browsing your S3 bucket, click on **Versions: Show** at the top.



Here we can see that even though we deleted the object and it is no longer listed, we can still view the different versions of the object that have lived in the bucket. By selecting a certain version, you can re-download the object at the version you would like.

To demonstrate, reupload *myobject.txt* to your bucket. Next, open *myobject.txt* on your desktop and add a second line of text (such as "This is my second line"). Upload this to your bucket as well, making sure not to change the name or delete the currently stored version of the object.

When showing your versions, you should now see two new versions of *myobject.txt* available.

Summary

In this lab we have learned the basics of creating a bucket, uploading objects, setting public permissions, and enabling versioning. Be sure you have also watched the S3 section of the **AWS Certified Solutions Architect – Associate Level** course for more information on AWS S3.