Lab: Getting Started with Amazon S3

Accessing the AWS Management Console

1. At the top of these instructions, choose Start Lab to launch your lab.

   A **Start Lab** panel opens, and it displays the lab status.

   Tip: If you need more time to complete the lab, choose the **Start Lab** button again to restart the timer for the environment.

2. Wait until you see the message **Lab status: ready**, and then close the **Start Lab** panel by choosing the **X**.
3. At the top of these instructions, choose AWS

   This opens the AWS Management Console in a new browser tab. The system automatically signs you in.

   Note: If you find a dialog prompting you to switch to the new console home, choose **Switch to the new Console Home**.

   Tip: If a new browser tab does not open, a banner or icon at the top of your browser typically indicates that your browser is preventing the site from opening pop-up windows. Select the banner or icon, and choose **Allow pop-ups**.

4. Arrange the **AWS Management Console** tab so that it displays along side these instructions. Ideally, you will be able to see both browser tabs at the same time so that you can follow the lab steps.

Task 1: Creating a bucket in Amazon S3

In this task, you create an S3 bucket and configure it for static website hosting.

5. In the **AWS Management Console**, on the **Services** menu, choose **S3**.
6. Choose **Create bucket**

   An S3 bucket name is globally unique, and all AWS accounts share the namespace. After you create a bucket, no other AWS accounts in any AWS Regions can use the name of that bucket unless you delete the bucket.

   For this lab, you use a bucket name that includes a random number, such as **website-123**.

7. For **Bucket name**, enter `website-<123>` and replace *<123>* with a random number.

   Public access to buckets is blocked by default. Because the files in your static website will need to be accessible through the internet, you must permit public access.

8. For **Object Ownership**, choose **ACLs enabled**.
9. Choose **Bucket owner preferred**.
10. For **Block Public Access settings for this bucket**, clear the check box for **Block *all* public access**, and then select the box that states **I acknowledge that the current settings might result in this bucket and the objects within becoming public.**
11. For **Bucket Versioning**, choose **Enable**.

    Note: Once you turn on (enable) bucket versioning, you can't turn it off.

12. For **Tags**, choose **Add tag**, and enter the following:
    - **Key:** `Department`
    - **Value:** `Marketing`

    You can use tags to add additional information to a bucket, such as a project code, cost center, or owner.

13. Choose **Create bucket**
14. In the **Buckets** section, choose the name of your new bucket.
15. Choose the **Properties** tab.

Task 2: Configuring a static website on Amazon S3

You will now configure the bucket for static website hosting.

16. Scroll to the **Static website hosting** panel.
17. Choose **Edit**
18. Configure the following settings:
    - **Static web hosting:** Choose **Enable**.
    - **Hosting type:** Choose **Host a static website**.
    - **Index document:** Enter `index.html`
    - **Error document:** Enter `error.html`

    Note: You must enter `index.html` and `error.html` even though they are already displayed.

19. Choose **Save changes**
20. In the **Static website hosting** panel under **Bucket website endpoint**, choose the link.

    You receive a *403 Forbidden* message because you have not yet configured the bucket permissions. Keep this tab open in your web browser so that you can return to it later.

    You have configured your bucket to host a static website.

Task 3: Uploading content to your bucket

In this task, you upload the static files to your bucket.

21. Choose (right-click) each of the following links, and download the files to your computer:

Ensure that each file keeps the same file name, including the extension.

- index.html
- script.js
- style.css

22. Return to the Amazon S3 console, and choose the **Objects** tab.
23. Choose **Upload**
24. Choose **Add files**
25. Choose the three files that you downloaded.
26. Choose **Upload**

Your files are uploaded to the ucket.

27. Choose **Close**

Task 4: Turning on public access to the objects

Objects that are stored in Amazon S3 are private by default. This setting helps keep your organization's data secure.

In this task, you make the ploaded objects publicly accessible so users can view your website.

First, confirm that the objects are currently private.

28. Return to the browser tab that showed the *403 Forbidden* message.
29. Refresh the webpage.

If you accidentally closed this tab, go to the **Properties** tab, and in the **Static website hosting** panel, choose the **Bucket website endpoint** link again.

You should still see a *403 Forbidden* message. This response is expected! This message indicates that your static website is being hosted by Amazon S3 but that the content is private.

You can make Amazon S3 objects public through two different ways:

- To make either a whole bucket public or a specific directory in a bucket public, use a bucket policy.
- To make individual objects in a bucket public, use an access control list (ACL).

It is normally safer to make individual objects public because doing so avoids accidentally making other objects public. However, if you know that the entire bucket contains no sensitive information, you can use a bucket policy.

You now configure the individual objects to be publicly accessible.

30. Keep the website tab open, and return to the web browser tab with the Amazon S3 console.
31. Choose all three objects.
32. In the **Actions** menu, choose **Make public using ACL**.

A list of the three objects is displayed.

33. Choose **Make public**

Your static website is now publicly accessible.

34. Choose **Close**
35. Return to the web browser tab that has the *403 Forbidden* message.
36. Refresh the webpage.

You should now see the static website that is being hosted by Amazon S3.

Now you know how to share objects with everyone by making them public. However, there may be times when you need to share an individual object for a limited amount of time. In the next task, you learn how to temporarily share an object.

Task 5: Securely sharing an object using a presigned URL

When you need to temporarily and securely share an object with a person or group of people, you can create a presigned URL. When you create the URL, you must configure how long the URL will be valid. Then, you can share this URL with the users who should have access to the object.

As long as the presigned URL is valid, anyone who has it can get to the object. Avoid keeping the URL active longer than necessary, and only share the URL with people you trust.

37. Choose (right-click) the following link, and download the file to your computer: Ensure that the file keeps the same file name, including the extension.

- new-report.png

38. Return to the Amazon S3 console, and choose the **Objects** tab.
39. Choose **Upload**
40. Choose **Add files**
41. Choose the file that you downloaded.
42. Choose **Upload**

You have uploaded your file to the bucket.

43. Choose **Close**

Like when you first uploaded the website files, the **new-report.png** file is private by default. This time, instead of making the object public, you create a presigned URL to access the file.

44. In the **Objects** tab, choose **new-report.png**.
45. From the **Actions** menu, select **Share with a presigned URL**
46. In the pop-up window, configure the **Time interval until the presigned URL expires**:
    - Choose **Minutes**
    - For **Number of minutes**, enter `2`
47. Choose **Create presigned URL**
48. From the banner at the top of the page, choose **Copy presigned URL**.
49. Open a new browser tab, and paste the URL you copied into the address bar.

    A report is displayed in the web browser.

    If you wait 5 minutes and use the link again, you will find that the URL has expired and no longer works.