Hosting a Static Website

Static websites have fixed content with no back-end processing. They can contain HTML pages, images, style sheets and all files required to render the website, but there is no server-side scripting or database. If desired, the web pages can provide interactivity and run programming logic by using JavaScript that runs within the user's web browser.

You can easily host a static website on Amazon Simple Storage Service (Amazon S3) by uploading the desired content and making it publicly accessible. No servers are required and you can use Amazon S3 to store and retrieve any amount of data at any time, from anywhere on the web.

In this lab you will:

- Create a Bucket in Amazon S3
- Upload Content to your Bucket
- Enable Access to the Objects
- Update the Website

Duration

This lab will require approximately **20 minutes** to complete.

- Click **Open Console**

- Sign in to the AWS Management Console using the credentials shown to the left of these instructions.

⚠ Please do not change the Region during this lab.

Task 1: Create a Bucket in Amazon S3

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

1. In the **AWS Management Console**, on the **Services** menu, click **S3**.
2. Click **+ Create bucket**

   An Amazon S3 bucket name is globally unique, and the namespace is shared by all AWS accounts. This means that after a bucket is created, the name of that bucket cannot be used by another AWS account in any AWS Region until the bucket is deleted.

   Therefore, for this lab you will use a bucket name with a random number, such as: *website-123*

3. For **Bucket name** enter: `website-123` (Replacing *123* with a random number)
4. Click **Next**

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

5. Under **Tags**, enter:

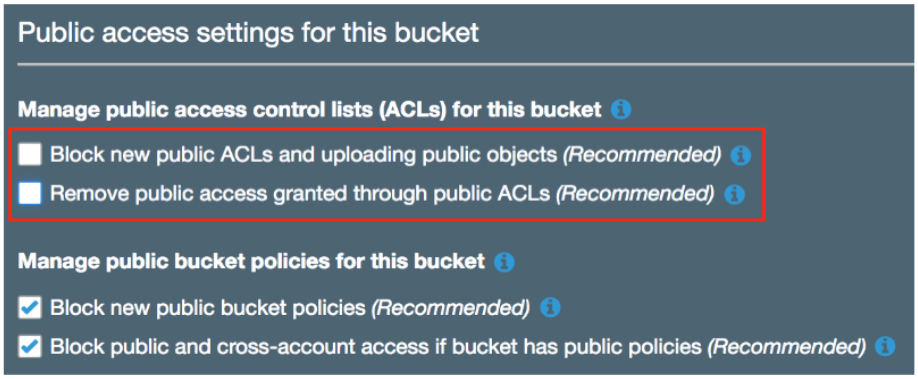
   - **Key:** `Department`
   - **Value:** `Marketing`

6. Click **Next**

   Public access to buckets is blocked by default. The files in your static website will need to be publicly accessible, so you will need to permit

access.

7. Deselect (turn off) the first two options:



8. Click **Next**

9. Click **Create bucket**

10. Click the name of your new bucket.

    You will now configure the bucket for Static Website Hosting.

11. Click the **Properties** tab.

12. Click **Static website hosting**.

13. Click the **Endpoint** link.

    You will receive a **404 Not Found** error because the website has not been configured yet. Keep this tab open in your web browser so that you can return to it later.

14. Return to the web browser tab with the Amazon S3 management console (but do not close the website tab).

15. Click ⦿ **Use this bucket to host a website**.

16. For **Index document**, enter: `index.html` (*You will need to enter this even though it is already displayed*)

17. Click **Save**

    Your bucket has now been configured to host a static website.

Task 2: Upload Content to your Bucket

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

18. Right-click each of these links and download the files to your computer:

    ⚠ Ensure that each file keeps the same filename, including the extension!

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

19. Return to the S3 management console and click the **Overview** tab.

20. Click **Upload**

21. Click **Add files**

22. Choose the 3 files that you downloaded.

23. Click **Upload**

    Your files will be uploaded to the bucket.

Task 3: Enable Access to the Objects

Objects stored in Amazon S3 are private by default. This ensures that your organization's data remains secure.

In this task, you will make the uploaded objects publicly accessible.

First, you will confirm that they are currently private.

24. Return to the web browser tab that showed the **404 Not Found** error.

25. Refresh ↻ the web page.

    💬 If you accidentally closed this tab, go to the **Properties** tab, click **Static website hosting** and click the **Endpoint** link again.

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

    There are several ways to make Amazon S3 objects public:

    - A **Bucket Policy** can be used to make a whole bucket public, or just a directory within a bucket.
    - An **Access Control List (ACL)** can be used to make individual objects public.

    It is normally safer to make *individual objects* public because this avoids other objects being accidentally made public. However, if you know that the entire bucket contains no sensitive information, a *Bucket Policy* can be used.

    You will now configure the individual objects to be publicly accessible.

26. Return to the web browser tab with the Amazon S3 management console (but do not close the website tab).

27. Select ☑ all 3 objects.

28. In the **Actions** menu, click **Make public**.

    A list of the 3 objects will be displayed.

29. Click **Make public**

    That's it! Your static website will now be publicly accessible.

30. Return to the web browser tab showing **403 Forbidden**.

31. Refresh 🔄 the web page.

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

Task 4: Update the Website

You can make changes to the website by editing the HTML file and uploading it again to the Amazon S3 bucket.

Amazon S3 is an *object storage service*, so you will need to upload the whole file. This will replace the existing object in your bucket. It is not possible to edit the contents of an object — the whole object must be replaced.

32. On your computer, load the **index.html** file into a text editor (eg Notepad or TextEdit).

33. Find the text **Served from Amazon S3** and replace it with **Created by YOUR-NAME**, substituting your name (for example *Created by Elvis*).

34. Save the file.

35. Return to the Amazon S3 management console and upload the **index.html** file that you just edited.

36. Select ☑ **index.html** and use the **Actions** menu to **Make public** again.

37. Return to the web browser tab with the Static Website and refresh 🔄 the page.

    You should see your name on the page!

Conclusion

Your static website is now accessible on the internet. Since it is hosted on Amazon S3, it has extremely high availability and can serve very high volumes of traffic without requiring any servers.

You can also use your own Domain Name to direct users to a static website. This involves the use of the Amazon Route 53 DNS service, which will be covered later in the course.

Lab Complete

Congratulations! You have completed the lab.

Click **End Lab** at the top of this page to clean up your lab environment.