

Guided Lab: Setting up a Static Website on Amazon S3

Description

One notable feature of Amazon S3 is its capability to host websites. By enabling website hosting on an S3 bucket, users can easily host a static website that consists of HTML, CSS, JavaScript, and other static files. When configured for website hosting, S3 provides a website endpoint URL for accessing the site. However, it's important to note that S3 is only suitable for static websites; it does not support server-side scripting or database interaction. This means S3 can serve files as they are stored but cannot perform server-side logic processing like a traditional web server.

Objectives

In this lab, you will:

- Learn how to serve a static website on Amazon S3
- Set the permissions required in hosting a public static website

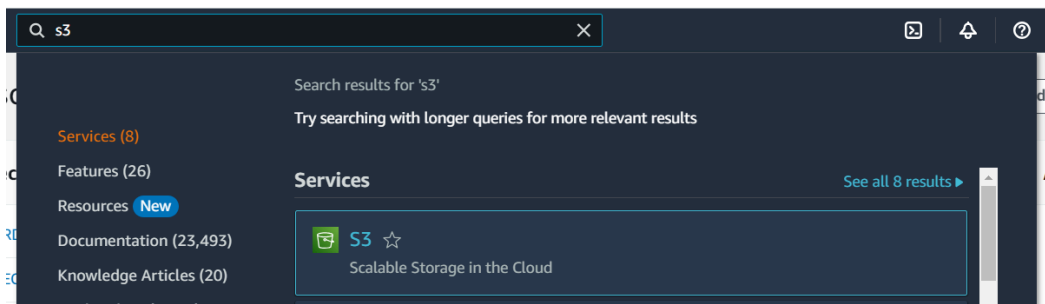
Subscribe to access AWS

PlayCloud Labs

Lab Steps

Serve a static website on Amazon S3

1. In the AWS Management Console, search for **"S3"** using the search bar and select the S3 result under Services.



2. Click on the **“Create bucket”** button. You will be prompted to configure your bucket.

3. Configure bucket details:

- **Bucket name:** Give your bucket a unique name that follows the S3 naming rules.
 - Bucket names must be globally unique and follow naming rules. Consider adding a timestamp for uniqueness.
- **Region:** Choose the region where you want to store your bucket. For this lab, you can only use N. Virginia Region to store your bucket.

[Amazon S3](#) > [Buckets](#) > Create bucket

Create bucket [Info](#)

Buckets are containers for data stored in S3. [Learn more](#)


General configuration

Bucket name

Bucket name must be unique within the global namespace and follow the bucket naming rules. [See rules for bucket naming](#)

AWS Region

Copy settings from existing bucket - *optional*
Only the bucket settings in the following configuration are copied.



- Uncheck the box that says **“Block all public access”** and acknowledge that the bucket will be publicly accessible.

Block Public Access settings for this bucket

Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to this bucket and its objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more](#)

☐ Block all public access

Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

☐ Block public access to buckets and objects granted through *new* access control lists (ACLs)

S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.

☐ Block public access to buckets and objects granted through *any* access control lists (ACLs)

S3 will ignore all ACLs that grant public access to buckets and objects.

☐ Block public access to buckets and objects granted through *new* public bucket or access point policies

S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.

☐ Block public and cross-account access to buckets and objects through *any* public bucket or access point policies

S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.



Turning off block all public access might result in this bucket and the objects within becoming public

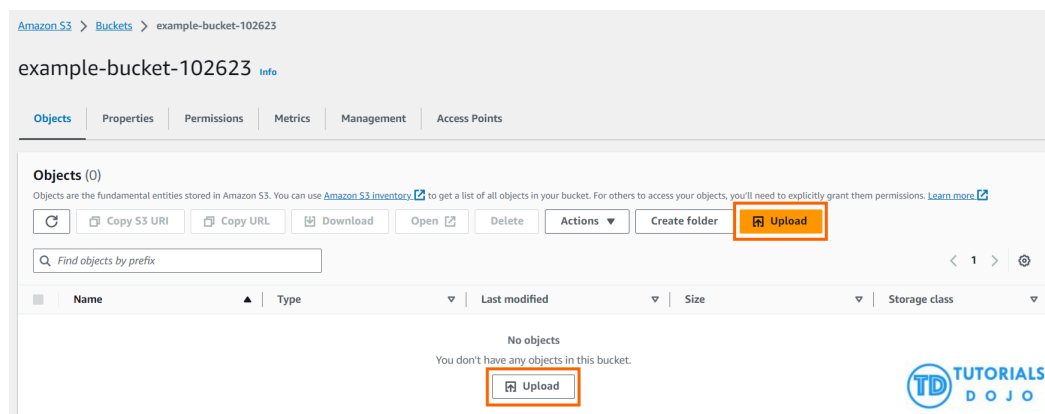
AWS recommends that you turn on block all public access, unless public access is required for specific and verified use cases such as static website hosting.

☒ I acknowledge that the current settings might result in this bucket and the objects within becoming public.

Expand the other sections, and take a moment to review the available configurations.

4. Click on the **“Create bucket”** button at the bottom of the page to create your bucket.

5. In the S3 console, select your bucket and click on the **“Upload”** button. You can either drag and drop or browse for the files that contain your static web content, such as HTML, CSS, and JavaScript files.



6. Use this sample template for your HTML file. Save this as **index.html**.

```
<!doctype html>
<title>Static Website on Amazon S3</title>
<style>
  body { text-align: center; padding: 150px; }
  h1 { font-size: 50px; }
  body { font: 20px Helvetica, sans-serif; color: #333; }
  article { display: block; text-align: left; width:
650px; margin: 0 auto; }
  a { color: #dc8100; text-decoration: none; }
  a:hover { color: #333; text-decoration: none; }
  .sample {padding: 10px 20px 10px; border-top: groove;
border-bottom: groove;}
</style>

<article>
  <div class="sample">
    <h1>Welcome to my website!</h1>
  </div>
</article>
```

7. Click the **“Upload”** button to upload your 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 folder**.

Files and folders (1 Total, 1.4 KB)

Remove

Add files

Add folder

All files and folders in this table will be uploaded.

Find by name

<input checked="" type="checkbox"/>	Name	Folder	Type	Size
<input checked="" type="checkbox"/>	index.html	-	text/html	1.4 KB

Destination

Destination

s3://example-bucket-102623

Destination details

Bucket settings that impact new objects stored in the specified destination.



Permissions

Grant public access and access to other AWS accounts.

This bucket has the **bucket owner enforced** setting applied for Object Ownership. Use bucket policies to control access. [Learn more](#)

Properties

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

Cancel

Upload

8. After clicking the **“Upload”** button, a confirmation will appear to let you know that the process has started and a file has been created.

9. Click the **“Close”** button, then go back to your bucket.

10. Select your bucket and click on the **“Properties”** tab. Under the **“Static website hosting”** section, click on the **“Edit”** button. Choose **“Enable”** and enter the name of your index document (usually index.html).

Amazon S3 > Buckets > example-bucket-102623

example-bucket-102623 [Info](#)

1 [Objects](#) [Properties](#) [Permissions](#) [Metrics](#) [Management](#) [Access Points](#)

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](#)

[Copy S3 URI](#) [Copy URL](#) [Download](#) [Open](#) [Delete](#) [Actions](#) [Create folder](#) [Upload](#)

Find objects by prefix

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	index.html	html	October 26, 2023, 17:18:10 (UTC+08:00)	1.4 KB	Standard

Static website hosting
Use this bucket to host a website or redirect requests. [Learn more](#)

Static website hosting
Disabled

2 [Edit](#)

Amazon S3 > Buckets > example-bucket-102623 > Edit static website hosting

Edit static website hosting [Info](#)

Static website hosting
Use this bucket to host a website or redirect requests. [Learn more](#)

3 Static website hosting
☐ Disable
☒ Enable

Hosting type
☒ Host a static website
 Use the bucket endpoint as the web address. [Learn more](#)
☐ Redirect requests for an object
 Redirect requests to another bucket or domain. [Learn more](#)

4 For your customers to access content at the website endpoint, you must make all your content publicly readable. To do so, you can edit the S3 Block Public Access settings for the bucket. For more information, see [Using Amazon S3 Block Public Access](#)

Index document
Specify the home or default page of the website.

Error document - optional
This is returned when an error occurs.

TUTORIALS DOJO

11. Click on the “Save changes” button.

12. After enabling website hosting, you will see a URL under the “Static website hosting” section that looks like `http://bucket-name.s3-website.region.amazonaws.com`.

Static website hosting [Edit](#)

Use this bucket to host a website or redirect requests. [Learn more](#)

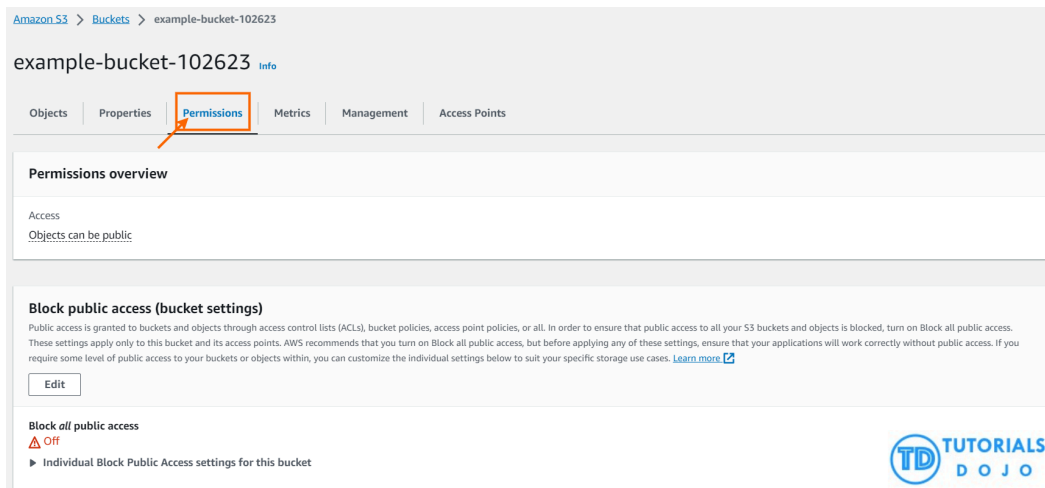
Static website hosting
Enabled
Hosting type
Bucket hosting
Bucket website endpoint
When you configure your bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. [Learn more](#)

<http://example-bucket-102623.s3-website-us-east-1.amazonaws.com>

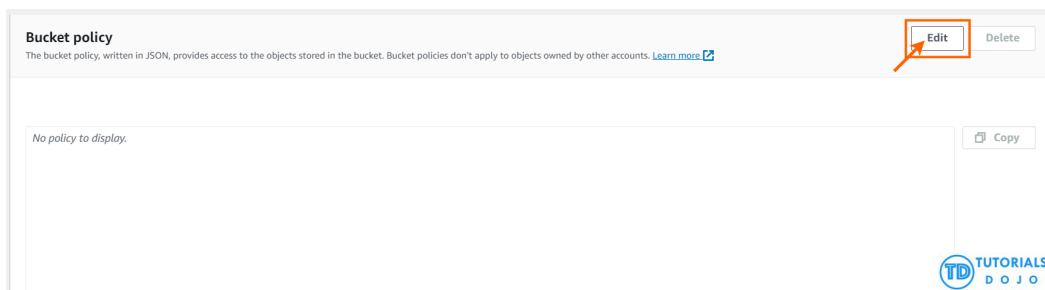
TUTORIALS DOJO

Set the permissions required in hosting a public static website

1. Go back to your S3 bucket and navigate to the **"Permissions"** tab.



2. Under **"Permissions"**, edit the Bucket policy.



3. Add the bucket policy written in JSON format below:



```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Principal": "*",
      "Action": "s3:GetObject",
      "Resource": "arn:aws:s3:::[bucket-name]/index.html"
    }
  ]
}
```

4. Click Save Changes at the bottom of the page.

5. Under the **"Static website hosting"** you will see a URL that looks like `http://bucket-name.s3-website.region.amazonaws.com`. Copy this URL and paste it in your browser to access your website.

Static website hosting

Use this bucket to host a website or redirect requests. [Learn more](#)

Edit

Static website hosting

Enabled

Hosting type

Bucket hosting

Bucket website endpoint

When you configure your bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. [Learn more](#)

<http://example-bucket-102623.s3-website-us-east-1.amazonaws.com>



Welcome to my website!

