

Static Website Hosting on AWS S3

Introduction

In this documentation, I'll walk you through how I built and deployed a static website using **AWS S3** (Amazon Simple Storage Service). With AWS S3, I was able to host my website quickly, securely, and at a low cost. S3's powerful features made it an ideal choice for my project, and in this guide, I'll show you how I leveraged them for hosting my static site.

Project Overview

The static website I created consists of the following core components:

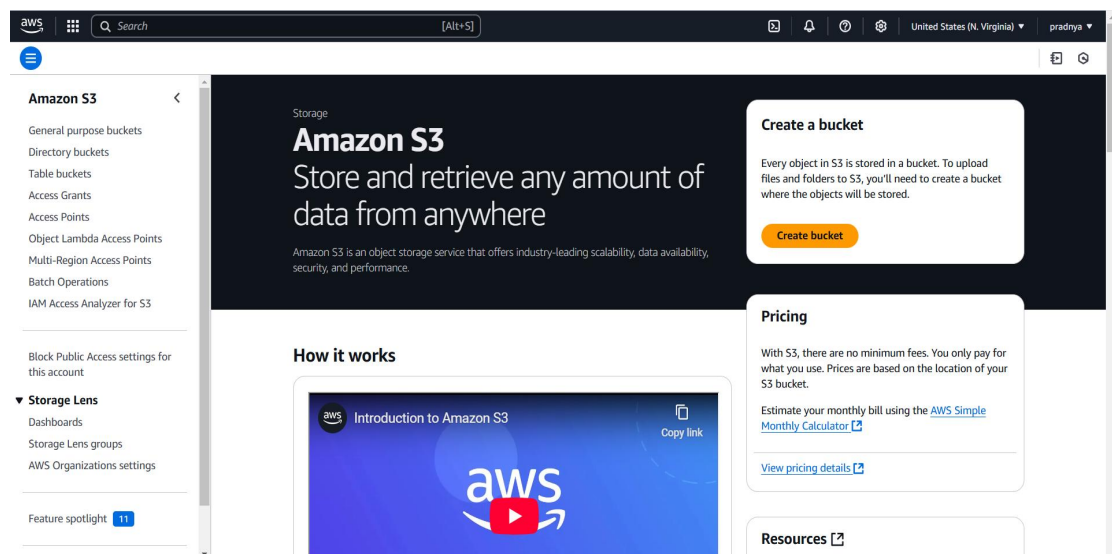
- **HTML:** The basic structure of the website, including the layout and content.
- **CSS:** The styling that makes the website look appealing and user-friendly.

Steps to Deploy the Static Website on AWS S3

A. Create an S3 Bucket

First, I created an S3 bucket to store my website files:

1. Go to the AWS S3 console.
2. Click on "Create Bucket" and choose a unique name for the bucket.



General configuration

AWS Region
US East (N. Virginia) us-east-1

Bucket type [Info](#)

☒ **General purpose**
Recommended for most use cases and access patterns. General purpose buckets are the original S3 bucket type. They allow a mix of storage classes that redundantly store objects across multiple Availability Zones.

☐ **Directory**
Recommended for low-latency use cases. These buckets use only the S3 Express One Zone storage class, which provides faster processing of data within a single Availability Zone.

Bucket name [Info](#)
staticwebsites312
Bucket name must be unique within the global namespace and follow the bucket naming rules. [See rules for bucket naming](#)

Copy settings from existing bucket - optional
Only the bucket settings in the following configuration are copied.
[Choose bucket](#)
Format: s3://bucket/prefix

Object Ownership [Info](#)
Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

☒ **ACLs disabled (recommended)**
All objects in this bucket are owned by this account. Access to this bucket and its objects is specified using only policies.

☐ **ACLs enabled**
Objects in this bucket can be owned by other AWS accounts. Access to this bucket and its objects can be specified using ACLs.

Object Ownership
Bucket owner enforced

B. Enable Static Website Hosting

Once the S3 bucket was created, I enabled static website hosting:

1. Inside the S3 bucket, I navigated to the "Properties" tab.
2. Under the "Static website hosting" section, I selected "Enable".
3. I specified index.html as the index document (the main page for the site)

Account snapshot - updated every 24 hours [All AWS Regions](#) [View Storage Lens dashboard](#)
Storage lens provides visibility into storage usage and activity trends. Metrics don't include directory buckets. [Learn more](#)

General purpose buckets | **Directory buckets**

General purpose buckets (1) [Info](#) [All AWS Regions](#)
Buckets are containers for data stored in S3.

[Copy ARN](#) [Empty](#) [Delete](#) [Create bucket](#)

	Name	AWS Region	IAM Access Analyzer	Creation date
<input type="radio"/>	staticwebsites312	US East (N. Virginia) us-east-1	View analyzer for us-east-1	February 19, 2025, 23:45:47 (UTC+05:30)

Object Lock [Edit](#)
Store objects using a write-once-read-many (WORM) model to help you prevent objects from being deleted or overwritten for a fixed amount of time or indefinitely. Object Lock works only in versioned buckets. [Learn more](#)

Object Lock
Disabled

Requester pays [Edit](#)
When enabled, the requester pays for requests and data transfer costs, and anonymous access to this bucket is disabled. [Learn more](#)

Requester pays
Disabled

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

☒ **We recommend using AWS Amplify Hosting for static website hosting**
Deploy a fast, secure, and reliable website quickly with AWS Amplify Hosting. Learn more about [Amplify Hosting](#) or [View your existing Amplify apps](#) [Create Amplify app](#)

S3 static website hosting
Disabled

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

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](#)

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.

index.html

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

error.html

Redirection rules - optional
Redirection rules, written in JSON, automatically redirect webpage requests for specific content. [Learn more](#)

C. Upload Files to S3

Next, I uploaded my website files to the S3 bucket:

1. In the S3 console, I clicked on the “Upload” button.
2. I uploaded the index.html 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 SDKs 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, 4.6 KB)
All files and folders in this table will be uploaded.

<input type="checkbox"/>	Name	Folder	Type	Size
<input type="checkbox"/>	index.html	-	text/html	4.6 KB

Destination [info](#)

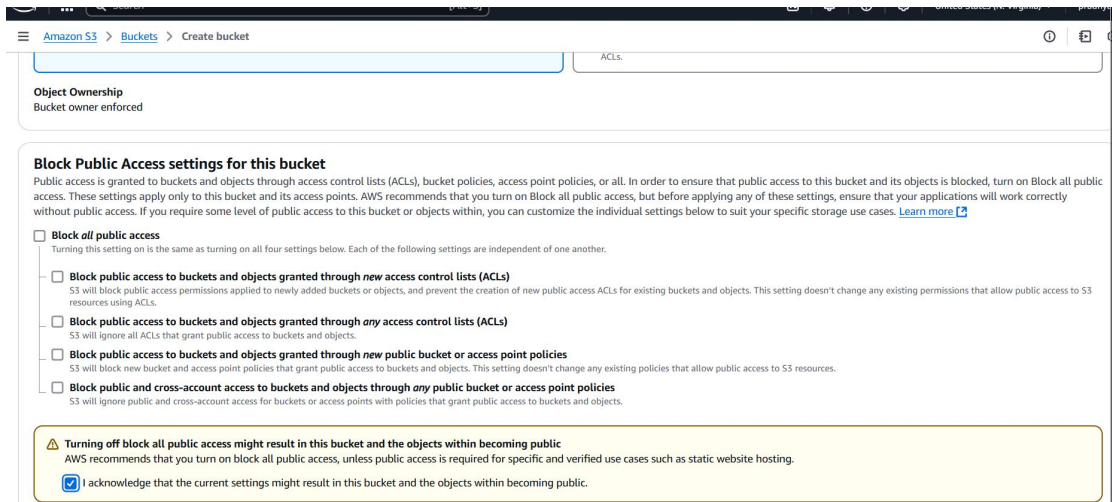
Destination
[s3://staticwebsites312](#)

[Destination details](#)
Bucket settings that impact new objects stored in the specified destination.

D. Permissions

To ensure my website was publicly accessible, I set the appropriate permissions:

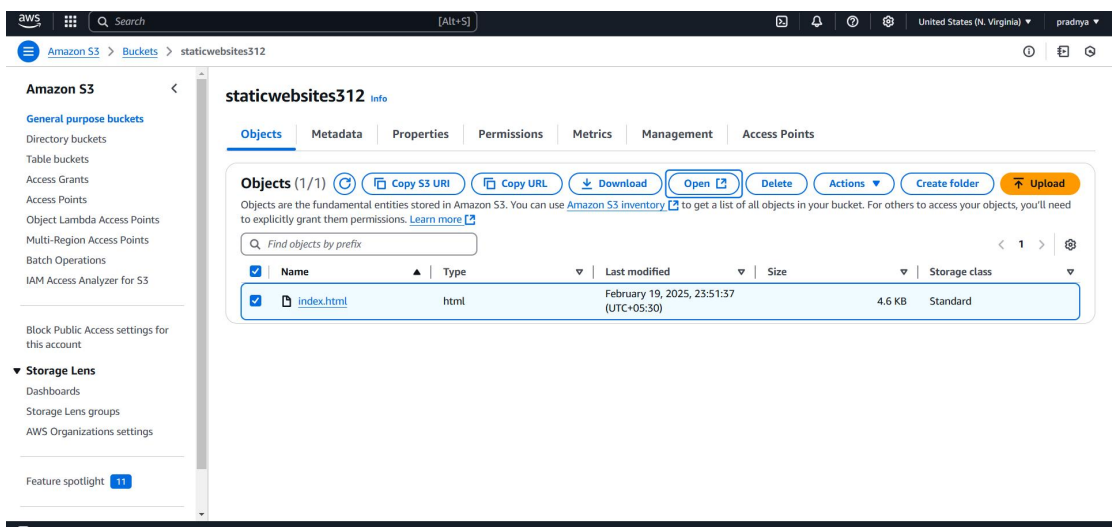
1. In the permissions tab, I selected “Bucket Policy” and added a policy to allow public access to the files.
2. This ensured that users could access my website without any restrictions.



Access Your Website

After everything was uploaded and permissions set, I accessed my website:

1. AWS provided a URL to access my static website, which looked something like `http://<bucket-name>.s3-website-<region>.amazonaws.com/`.
2. I tested the link to make sure my website was live and accessible to everyone.



Welcome to My Static Website

Hosted on AWS S3!

About the S3 static website Project

This project demonstrates how to create and deploy a static website on AWS S3, leveraging its scalability and cost-effectiveness.

Benefits of Using AWS S3 for Static Websites

Scalability: AWS S3 automatically scales to handle high traffic loads without manual intervention.

Cost-efficient: With S3, you only pay for the storage and bandwidth you use, making it very affordable.

Fast & Reliable: S3 delivers content quickly through its global network of edge locations, ensuring fast load times for your website.

Secure: S3 offers built-in encryption and access control, ensuring your content is secure.

Easy to Set Up: Hosting a static website on S3 is straightforward and doesn't require complex infrastructure.

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