

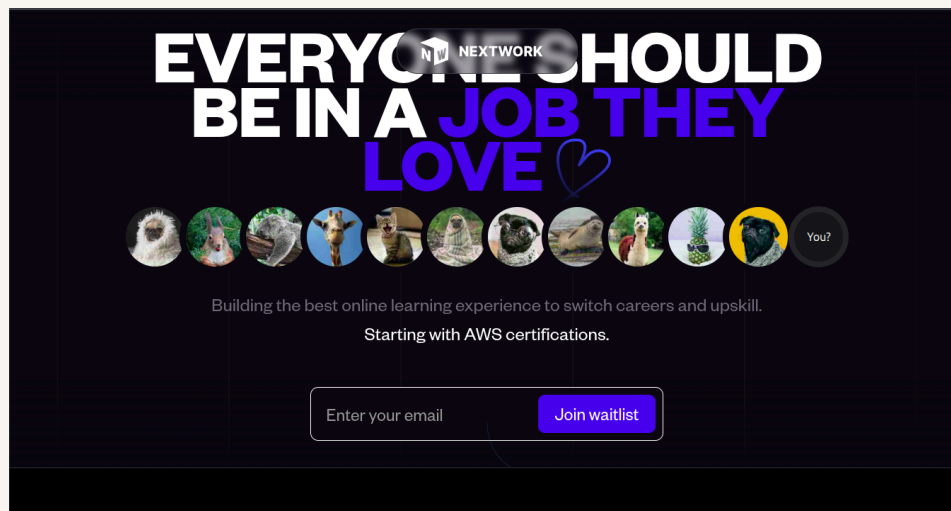


nextwork.org

Host a Website on Amazon S3



Clive Maduke





Introducing Today's Project!

Project overview

In this project, I will demonstrate how to use S3 to host a static website. I am doing this to learn more about AWS and cloud services and how they can be used to store objects in the cloud and even host websites.

Tools and concepts

Services I used were Amazon S3. Key concepts I learnt include S3 buckets for file storage, Static website hosting feature, Block Public Access settings, Bucket policies for permissions, S3 website endpoint URLs, Public vs private object access, C/S.

Time, challenges, and wins

This project took me approximately an hour. The most challenging part was navigating the console. It was most rewarding to finally understand and upload the website and see it running.



How I Set Up an S3 Bucket

What I did in this step

In this step, I will open S3 and then create a storage space inside to start storing website files.

How long it took to create the bucket

Creating an S3 bucket took me less than 10 minutes. Had to learn new concepts, understand them, for the future once these concepts are fully understood it should even take a shorter time to create a bucket.

Region selection

The Region I picked for my S3 bucket was US (N. Virginia), because it's the region that is closest to me. Picking the region closest to you always helps reduce latency and costs.

Understanding bucket name uniqueness

S3 bucket names are globally unique! This means that no two Amazon S3 buckets in the entire world can have the same name. They must be completely unique despite the account ID or region.



aws Search [Alt+S] United States (N. Virginia) Clive Thato Maduke-Ace

Amazon S3 Buckets View details

Successfully created bucket "nextwork-website-project-clivemadukeit"
To upload files and folders, or to configure additional bucket settings, choose [View details](#).

General purpose buckets All AWS Regions Directory buckets

General purpose buckets (1) Info

Copy ARN Empty Delete Create bucket

Buckets are containers for data stored in S3.

Find buckets by name

Name	AWS Region	Creation date
nextwork-website-project-clivemadukeit	US East (N. Virginia) us-east-1	December 27, 2025, 11:02:59 (UTC+02:00)

Account snapshot Info

Updated daily

[View dashboard](#)

Storage Lens provides visibility into storage usage and activity trends.

External access summary - new Info

Updated daily

External access findings help you identify bucket permissions that allow public access or access from other AWS accounts.

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Upload Website Files to S3

What I did in this step

In this step, I will upload the website files to my S3 bucket because files are what make up the website once uploaded in a bucket.

Files I uploaded

I uploaded two files to my S3 bucket - they were index.html this is for the structure of the website and folder of images and assets these will provide content on the website.

How the files work together

Both files are necessary for this project as html file provides structure or the skeleton of the web site and the asset folder brings in context and content for ease of use for the users



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Amazon S3 Buckets nextwork-website-project-clivemadeit

nextwork-website-project-clivemadeit Info

Objects Metadata Properties Permissions Metrics Management Access Points

Objects (2) Copy S3 URI Copy URL Download Open L Delete Actions Create folder Upload

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](#)

Find objects by prefix Show versions < 1 >

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	index.html	html	December 27, 2025, 11:52:26 (UTC+02:00)	58.8 KB	Standard
<input type="checkbox"/>	NextWork - Everyone should be in a job they love_files/	Folder	-	-	-

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Static Website Hosting on S3

What I did in this step

In this step, I will configure the website to be available to the outside world. This is called static website hosting, this is important as website files will stay as just files and not turn into a website if we do not do this.

Understanding website hosting

Website hosting means means uploading our website files on a web server, which is a special computer that are designed to turn website into website pages that people can visit

How I enabled website hosting

To enable website hosting with my S3 bucket, I went on to the properties tab of our bucket, enabled static website hosting and it is labelled "index.html" as the index document that is going to be hosted.



Access Control Lists (ACLs)

An ACL is a set of rules that enables control on who can access the resources. A pop up did come up on the screen advising the use of bucket policies Instead of ACLs but ACLs are neccessary of this project because individual access to objects.

The screenshot shows the 'Edit static website hosting' page in the Amazon S3 console. The page is titled 'Static website hosting' and includes a description: 'Use this bucket to host a website or redirect requests. [Learn more](#)'. Below this, there are two sections: 'Static website hosting' and 'Hosting type'. In the 'Static website hosting' section, the 'Enable' radio button is selected. In the 'Hosting type' section, the 'Host a static website' radio button is selected. A blue information box states: '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](#)'. Below this, there are two input fields: 'Index document' with the value 'index.html' and 'Error document - optional' with the value 'error.html'. The footer of the console shows '© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences'.

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

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Bucket Endpoints

Understanding bucket endpoint URLs

Once static website is enabled, S3 produces a bucket endpoint URL, which is the address to the website being hosted on the internet and the link will direct anyone who wants access to the website to the link.

What I saw when I tested the endpoint

When I first visited the bucket endpoint URL, I saw The reason for this error was 403 forbidden error. The reason for this error is because the objects in a bucket are public by default and thus the files need to be public too in order to get access.

403 Forbidden

- Code: AccessDenied
- Message: Access Denied
- RequestId: ZJCEV0N43JXM2XNN
- HostId: svW7Btem1K4Kyq7+j0smP6D2dEuIWvg3agRnleNOP3FajsWs1QRAGyGjcKZD/DnYeJLijBSS84=



Success!

What I did in this step

In this step, I will go into the files that I have uploaded in my bucket and make them public because this will enable me to view the contents of the website

How I resolved the 403 error

To resolve this 403 Forbidden error, I had to make the files I uploaded to the S3 bucket public by updating the ACL settings. once they became public the files the website was able to load without any issues

