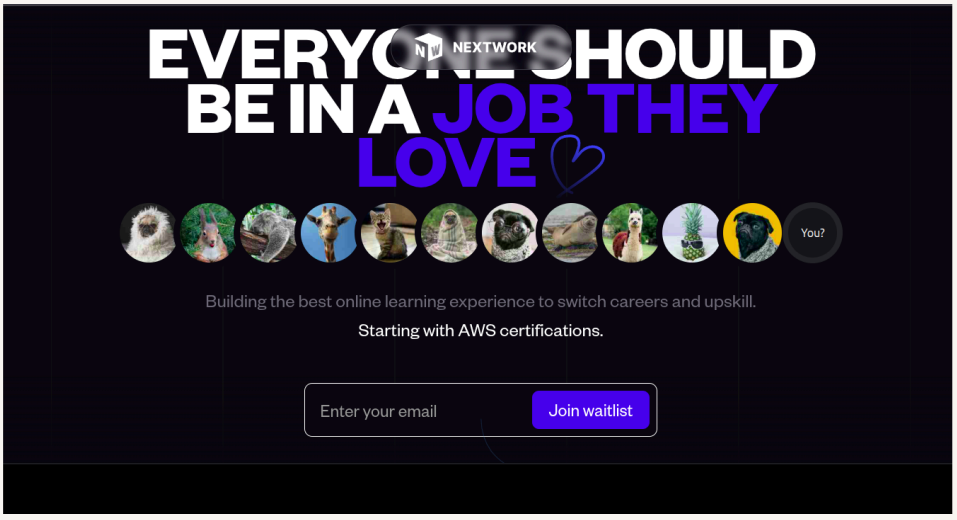
Host a Website on Amazon S3

Clive Maduke



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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 was 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 to finaly understand and upload the website and see it running

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How I Set Up an S3 Bucket

What I did in this step

In this step, I will open S3 and the 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 its 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 this means 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.

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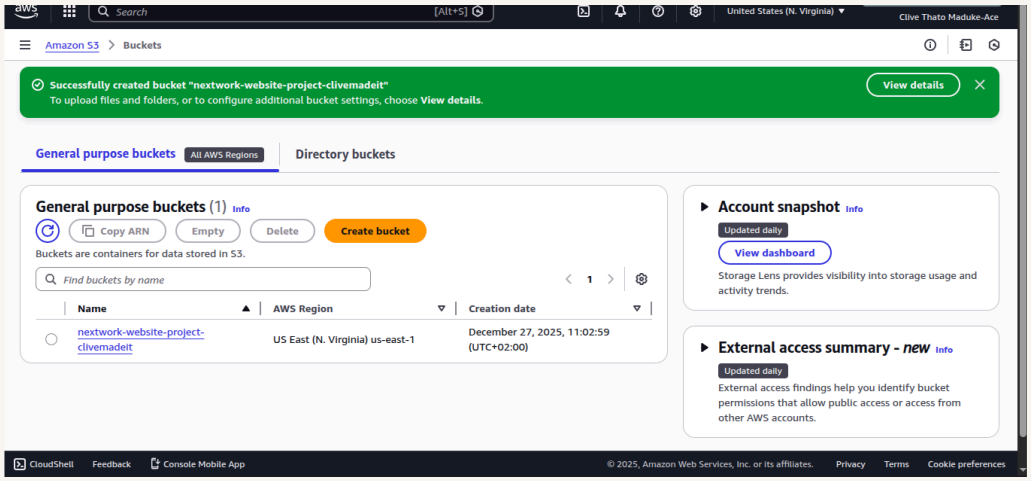

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Upload Website Files to S3

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 conext and content for ease of use for the users

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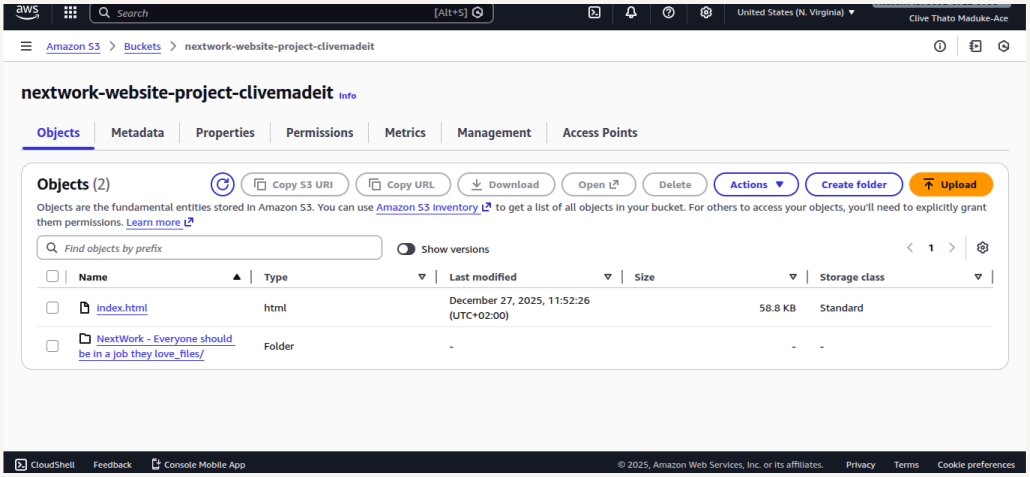

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Static Website Hosting on S3

What I did in this step

In this step, I will configure the website to availabele 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 thar 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 lablled "index.html" as the index document that is going to be hosted.

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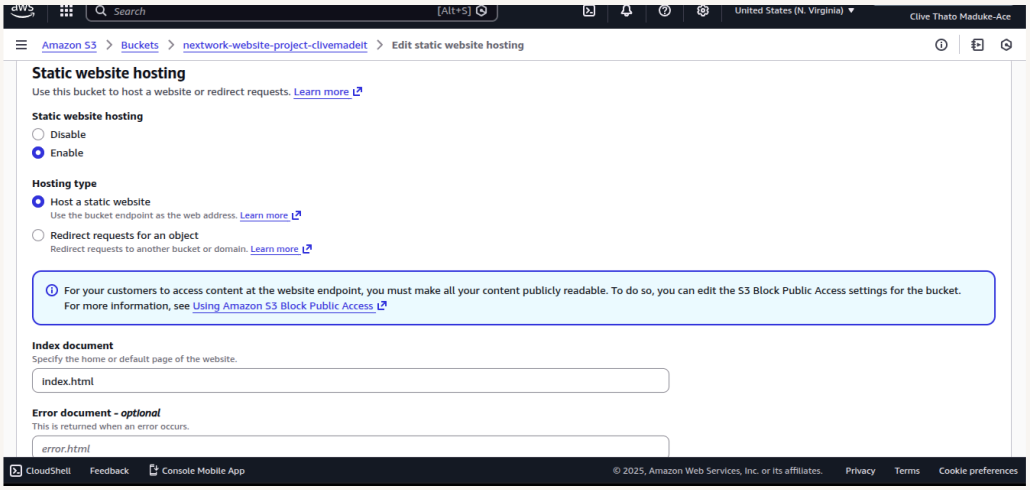
Access Control Lists (ACLs)

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 advicing the use of bucket policies Instead of ACLs but ACLs are neccessary of this project because individual access to objects.



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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.

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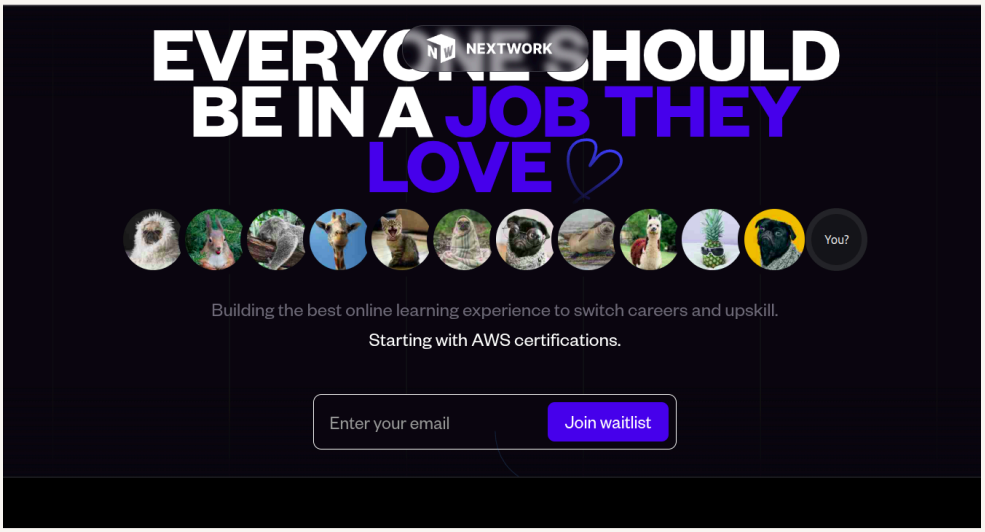
Success!

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