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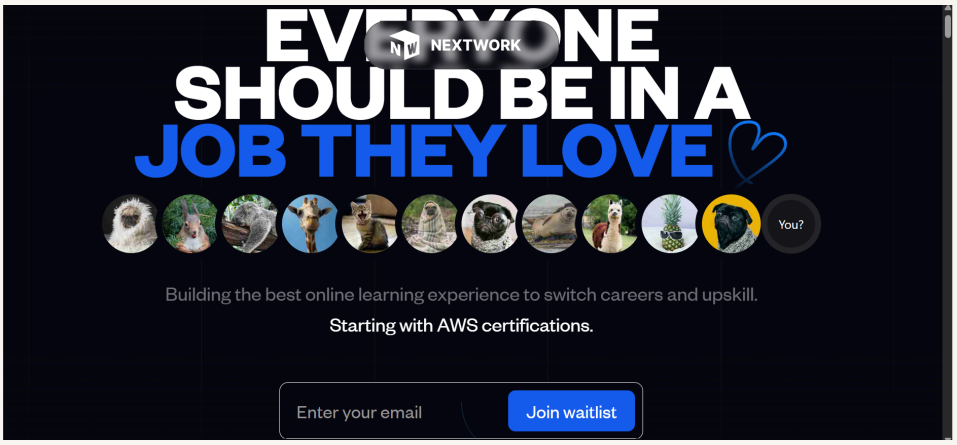
Host a Website on Amazon S3

Abdulazeem Badmus



Abdulazeem Badmus
NextWork Student

Introducing Today's Project!

Project overview

In this project, I will demonstratehow to host a static website using amazon s3 static website hosting. I'm doing this project to learn the fundamental basics of aws s3 static website hosting, bucket policies, ACl

Tools and concepts

Services I used were Amazon S3, IAM, S3 Website Hosting Key concepts I learnt include ACL, bucket policies, Cloud Deployment Flow, S3 Website Hosting, S3 Website Hosting

Time, challenges, and wins

This project took me approximately 45 mins

Abdulazeem Badmus
NextWork Student

How I Set Up an S3 Bucket

What I did in this step

In this step, I will create a bucket in amazon s3 console because this is where the website files will be stored and enabling static website hosting to host the file as a website

How long it took to create the bucket

Creating an S3 bucket took me less than 2 mins

Region selection

The Region I picked for my S3 bucket was south africa (af-south-)because this is the region closer to me, it is best practise to choose the region closer to the user in otherto improve the latency when retrieving or accesing the the objects or file

Understanding bucket name uniqueness

S3 bucket names are globally unique! This means no two buckets can have the same name in the world

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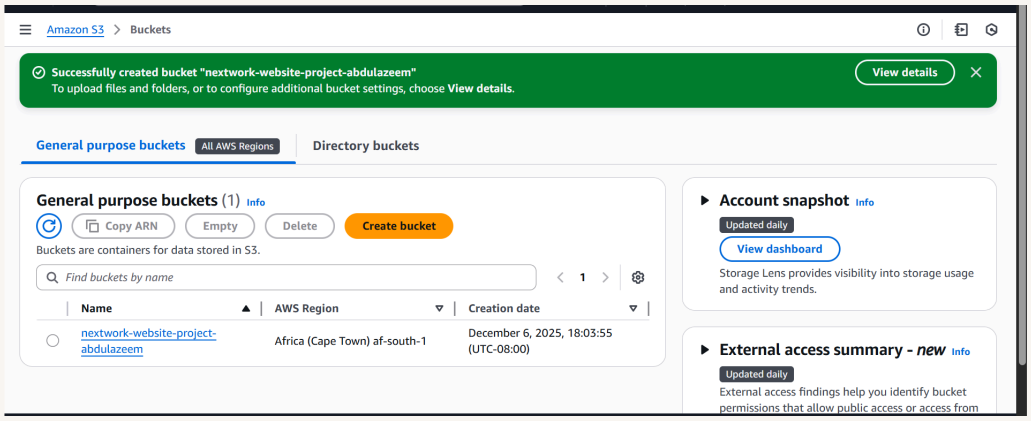

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Upload Website Files to S3

What I did in this step

In this step, I will upload the website contents into my s3 bucket(the html file and its dependecies which include the images used in the html file)because this is what s3 will use to host the website

Files I uploaded

I uploaded two files to my S3 bucket - they were the html file and the folder that contains the image used in the html file

How the files work together

Both files are necessary for this project as the html file needs the images to display and structure the website. this helps s3 to locate the images used in the html file. without uploading the image folder the website will be hosted with no image

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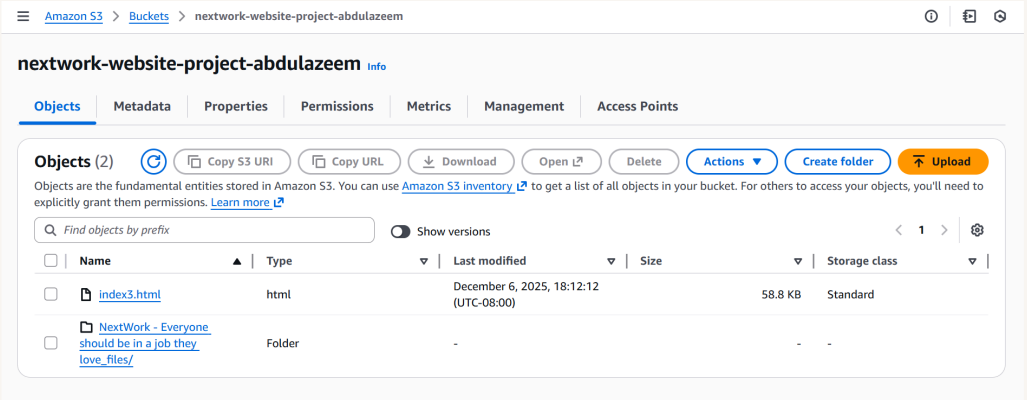

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Static Website Hosting on S3

What I did in this step

In this step, I will make the website come to life by setting the static website hosting,this option is found in the properties of the bucket, to generate an endpoint because this endpoint will be used to access the website from the browser

Understanding website hosting

Website hosting means making your website public on the internet.

How I enabled website hosting

To enable website hosting with my S3 bucket, I configured static website hosting which will then generate a URL or endpoint which will be used to access the website from the internet

Access Control Lists (ACLs)

An ACL is a set of rules that decides who can get access to a resource. Enabling ACLs in this S3 setup lets me control who can access and do things with the objects (i.e. website files) uploaded into the bucket. Also to allow public access to files

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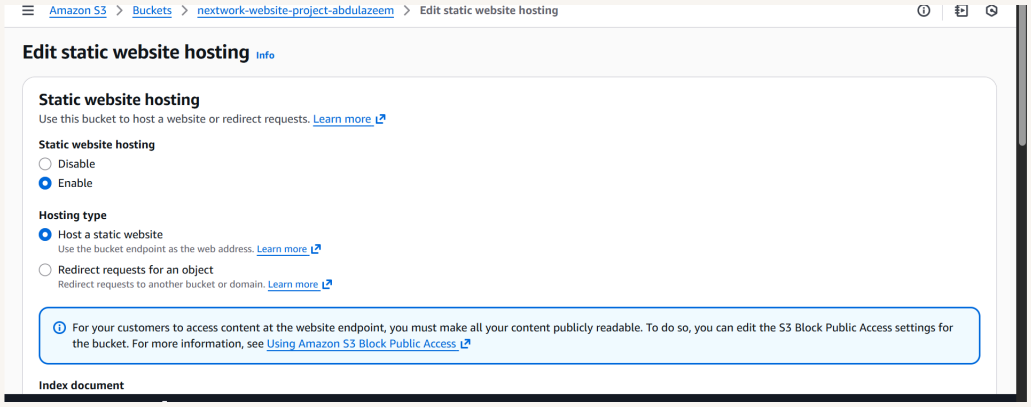

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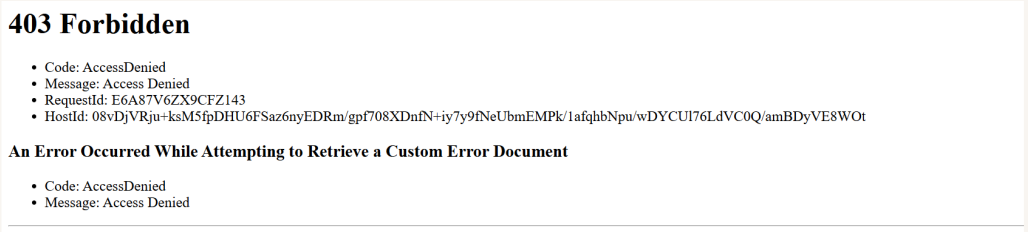
Bucket Endpoints

Understanding bucket endpoint URLs

Once static website is enabled, S3 produces a bucket endpoint URL, which is used to acces the webite

What I saw when I tested the endpoint

When I first visited the bucket endpoint URL, I saw a 403 error The reason for this error was that making the bucket public is one layer of granting access, the files stored in the buckets needs a permission before they can be accessed also.



403 Forbidden

- Code: AccessDenied
- Message: Access Denied
- RequestId: E6A87V6ZX9CFZ143
- HostId: 08vDjVRju+ksM5fpDHU6FSaz6nyEDRm/gpf708XDnfN+iy7y9fNeUbmEMPk/1afqhbNpu/wDYCUl76LdVC0Q/amBDyVE8WOt

An Error Occurred While Attempting to Retrieve a Custom Error Document

- Code: AccessDenied
- Message: Access Denied

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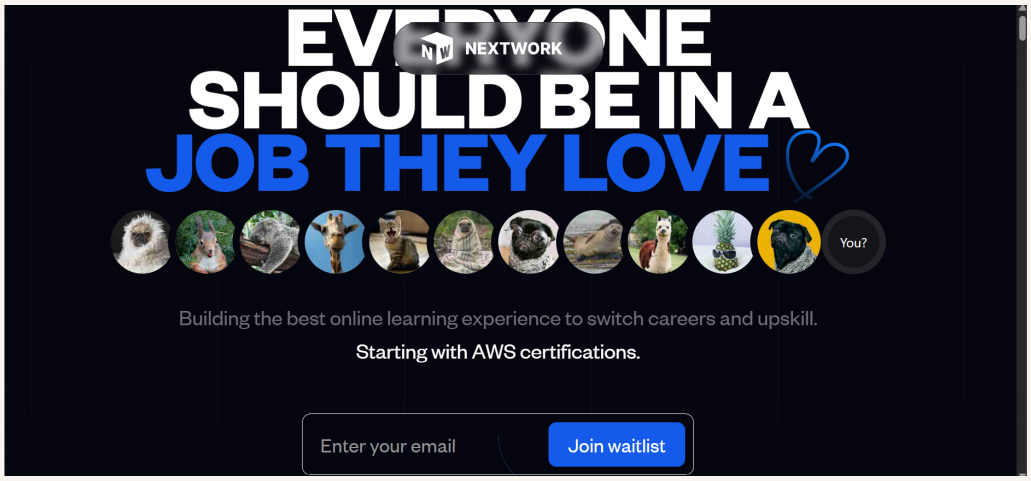
Success!

What I did in this step

In this step i will use the access control list (ACL) to grant permission to allow the files to be viwed publicly,

How I resolved the 403 error

To resolve this 403 Forbidden error, all i did is to make the files in the bucket public using the ACL to grant public read



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