Host a Website on Amazon S3

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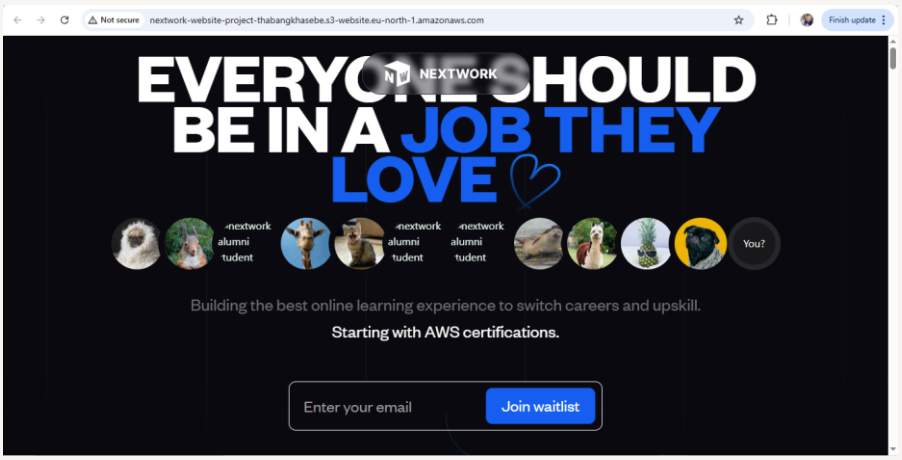

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Introducing Today's Project!

In this project, I will demonstrate how to use Amazon S3 to store and manage website files. I'm doing this to learn how S3 works, upload and organize content, and host static websites efficiently using Amazon's scalable cloud storage service.

Tools and concepts

Services I used were Amazon S3 for storing and hosting website files. Key concepts I learnt include creating buckets, uploading content, setting public permissions with ACLs, and enabling static website hosting.

Project reflection

This project took me approximately 1-2 hours to complete. The most challenging part was configuring the permissions correctly to avoid access errors. It was most rewarding to see the website go live and accessible through the S3 bucket URL.

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How I Set Up an S3 Bucket

Creating an S3 bucket took me just a few minutes since the process is straightforward and the AWS console provides a user-friendly interface to set it up quickly.

The Region I picked for my S3 bucket was eu-north-1 because it is one of the most commonly used and cost-effective AWS regions, offering low latency and high availability for hosting a website.

S3 bucket names are globally unique! This means that no two buckets across all AWS accounts worldwide can have the same name. When creating a bucket, you must choose a unique name to avoid conflicts and ensure your storage space is distinct.

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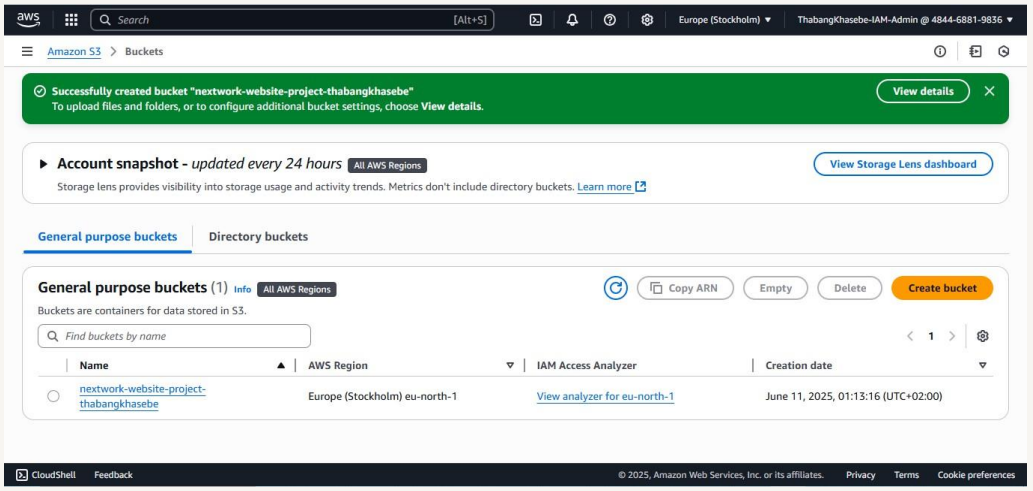

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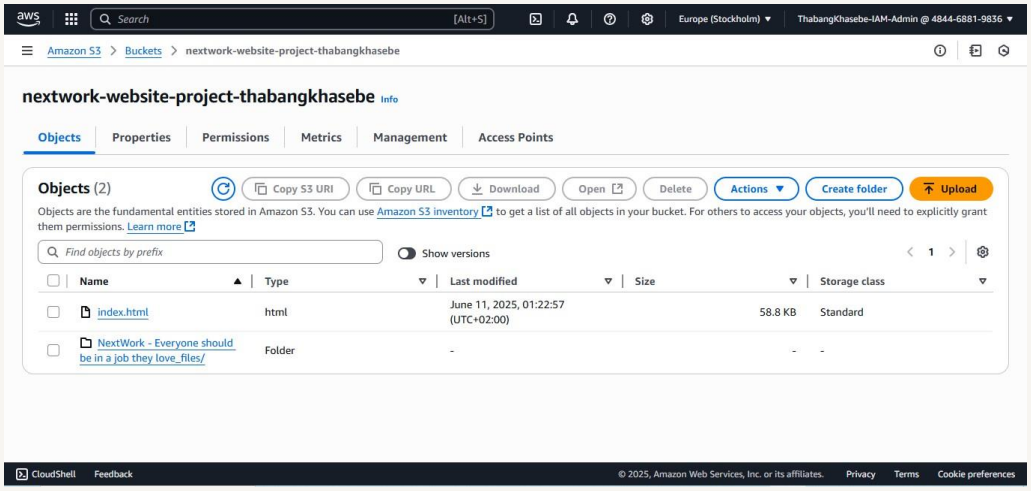
Upload Website Files to S3

index.html and image assets

I uploaded two files to my S3 bucket – the index.html file, which is the main webpage, and the NextWork - Everyone should be in a job they love_files folder containing all the images used on the site.

Both files are necessary for this project as the index.html file provides the webpage structure and content, while the NextWork - Everyone should be in a job they love_files folder contains the images that make the website visually complete.



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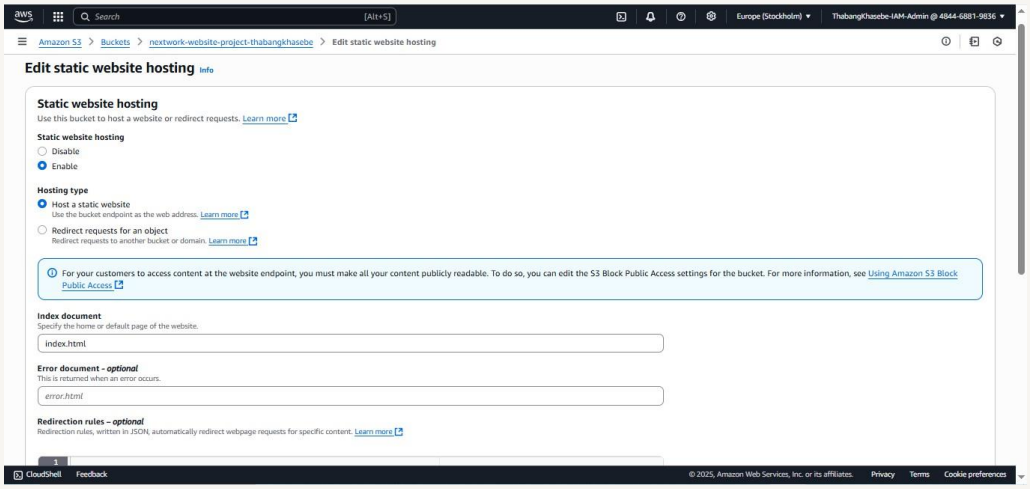
Static Website Hosting on S3

Website hosting means storing your website's files on a server or service, like Amazon S3, so they can be accessed and viewed by anyone on the internet through a web address.

To enable website hosting with my S3 bucket, I configured the bucket's static website hosting settings, specified the index document, and set the bucket policy to allow public access.

An ACL is a set of rules that define who can access your Amazon S3 bucket or its objects and what actions they can perform, such as reading or writing files. In this project, I enabled the ACL to manage permissions for my bucket's contents.



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Bucket Endpoints

Once static website hosting is enabled, S3 produces a bucket endpoint URL, which is the web address where my website files are publicly accessible and can be viewed by anyone online.

When I first visited the bucket endpoint URL, I saw a 403 Forbidden error. The reason for this error was that the bucket's permissions or website configuration was not properly set to allow public access to the files.

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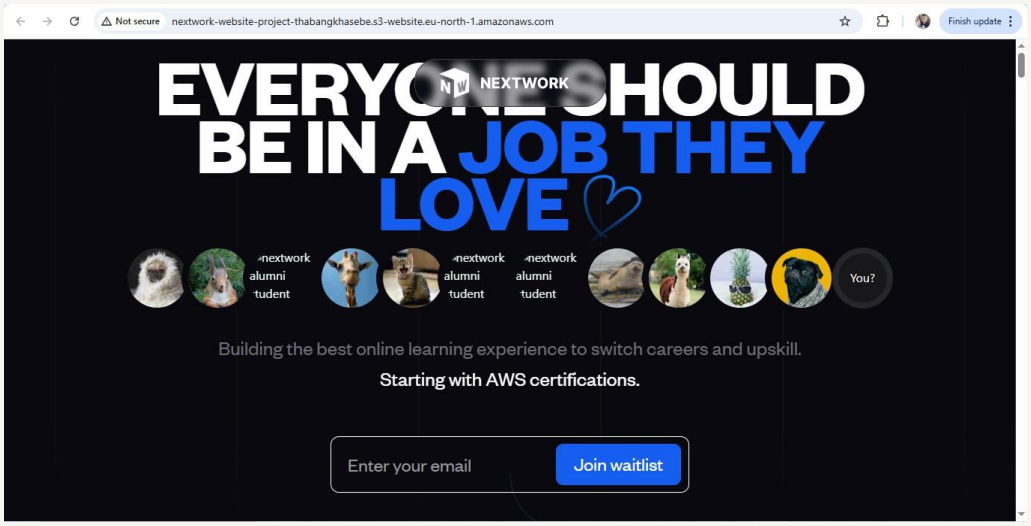
Success!

To resolve this 403 Forbidden error, I updated the files' ACL settings to grant public read access, ensuring that anyone can view the website content hosted in my S3 bucket.