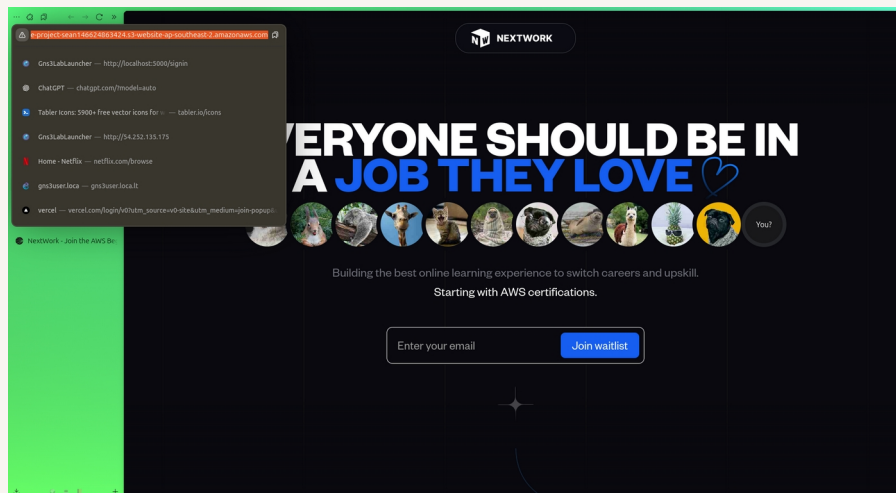# Host a Website on Amazon S3

Sean Calderon

Introducing Today's Project!

In this project, I will demonstrate how to host web contents using static web hosting in Amazon S3 bucket, and making it serve publicly viewable by anyone on the world.

Tools and concepts

The service that I used were Amazon S3 bucket and key concepts I learnt include implementing web hosting and hosting the web contents with proper set-ups of permissions and static web hosting settings.

Project reflection

This project took me approximately 20 minutes. The most challenging part was tweaking permissions and enabling per object ACLs. It was most rewarding to see the result of my progress when I saw the web content I hosted was being served globally.
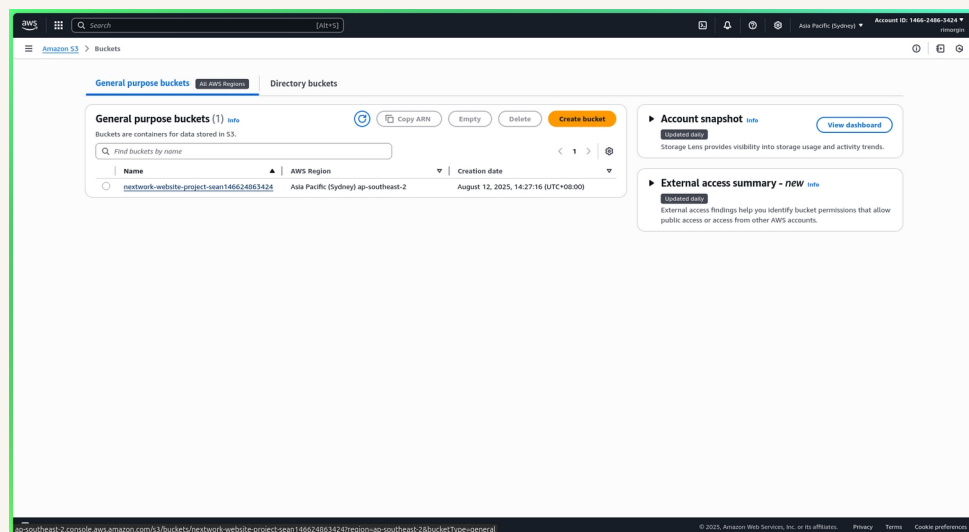
How I Set Up an S3 Bucket

Creating an S3 bucket is simple, as AWS management console has made it that way.

The Region was originally ap-southeast-2 (Sydney) which I am not about to change and stick to it

S3 bucket names are globally unique! This means that no one can have the same namespace as you have

Upload Website Files to S3

index.html and image assets

I uploaded two files to my S3 bucket and they were the index.html and the folder containing other assets such as image assets, javascript files, and etc.

Both files are necessary for this project as index.html serves as the entrypoint for the website we're about to host, and the folder containing assets are required for enriching the content of the website.
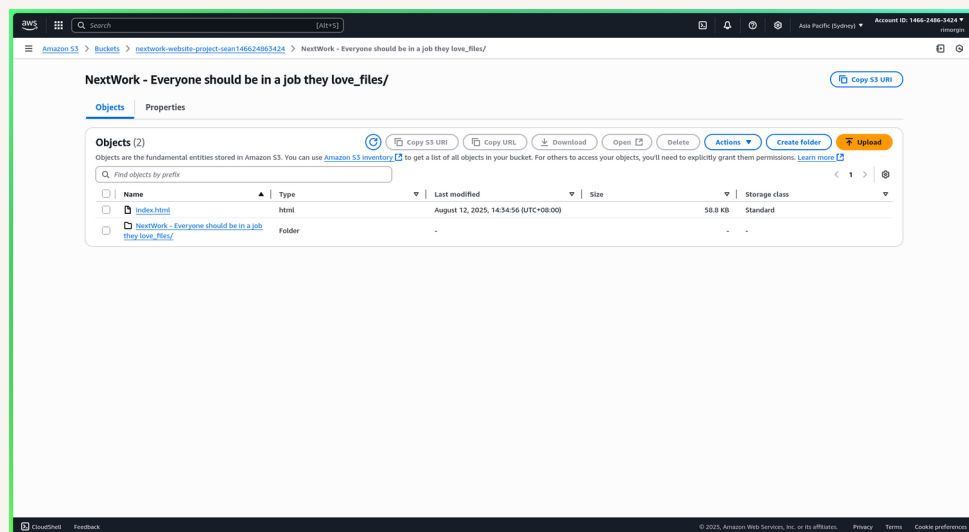
Static Website Hosting on S3

Website hosting is what makes your website publicly viewable/available on the internet.

To enable website hosting with my S3 bucket, I head over to the bucket properties page and scrolled down at the very bottom until i find static hosting, and clicked edit and enabled it afterwards.

An ACL is a security feature that prohibits or permits access a certain entity or object. Enabling ACL on S3 bucket is a way to limit access objects instead of entire objects that resides on the bucket.
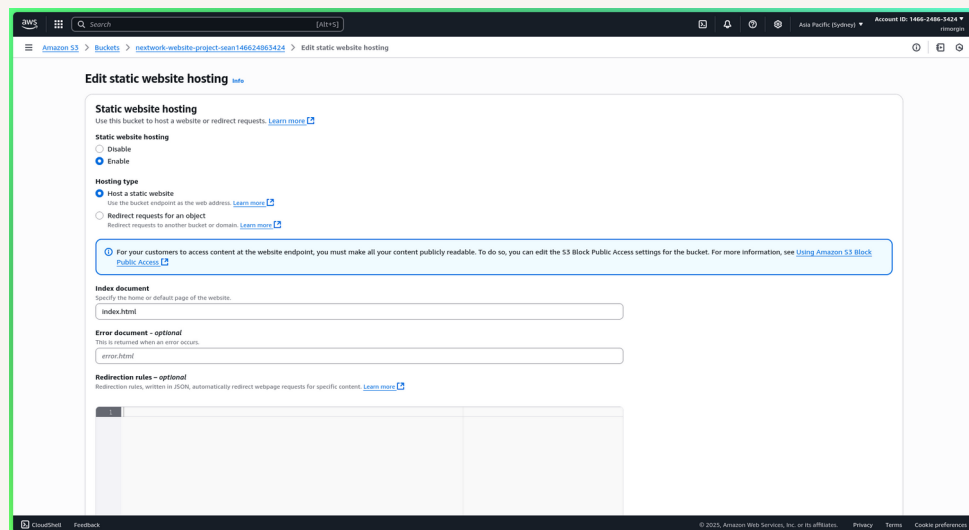
Bucket Endpoints

Once static website is enabled, S3 produces a bucket endpoint URL, which is http://nextwork-website-project-sean146624863424.s3-website-ap-southeast-2.amazonaws.com/

When I first visited the bucket endpoint URL, I saw an access denied error page. The reason for this error was permission is not yet configured and is a default security feature enabled on S3 bucket in order to secure your data

403 Forbidden
- Code: AccessDenied
- Message: Access Denied
- RequestId: TWD5839C11W7VYT9
- HostId: 5oumdE/xu7k3LmbG+JKzi9Oai5RuA6tjrxdwqEpjpa/NQIIbOPUIK6mCwMSGE9BNrEbYBv4KxvE=

Success!

To resolve this 403 Forbidden error, I tweaked the permission by enabling the per object ACL, also by disabling "Block all public access" on the permissions, I can now enable the ACL and make it publicly viewable through toggling the read permission of anyone can access on permission properties page.
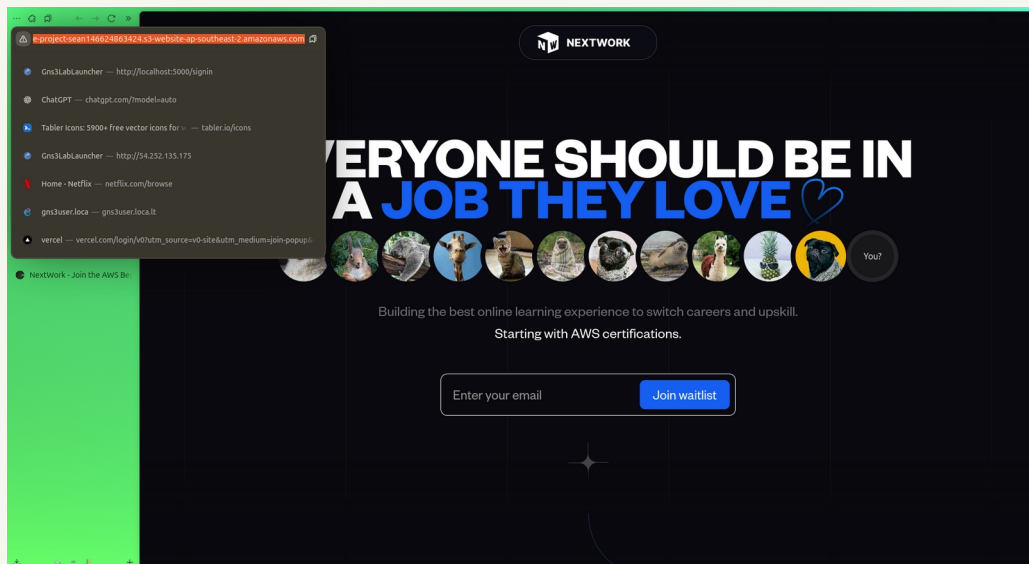
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