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How I Hosted a Website on Amazon S3

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Introducing Amazon S3!

What it does & how it’s useful

Amazon S3 is a simple storage service for objects that allows you to store and retrieve any amount of data and provides security.

Developers and teams use Amazon S3 because it offers flexibility as this can be used for a wide range of uses such as website hosting, data storage and data backup. Developers and teams also use this due to its high performance and being scalable at very low costs.

How I’m using it in today’s project

I’m using Amazon S3 in this project to create a static website.

This project took me...

Around 1 hour to complete.

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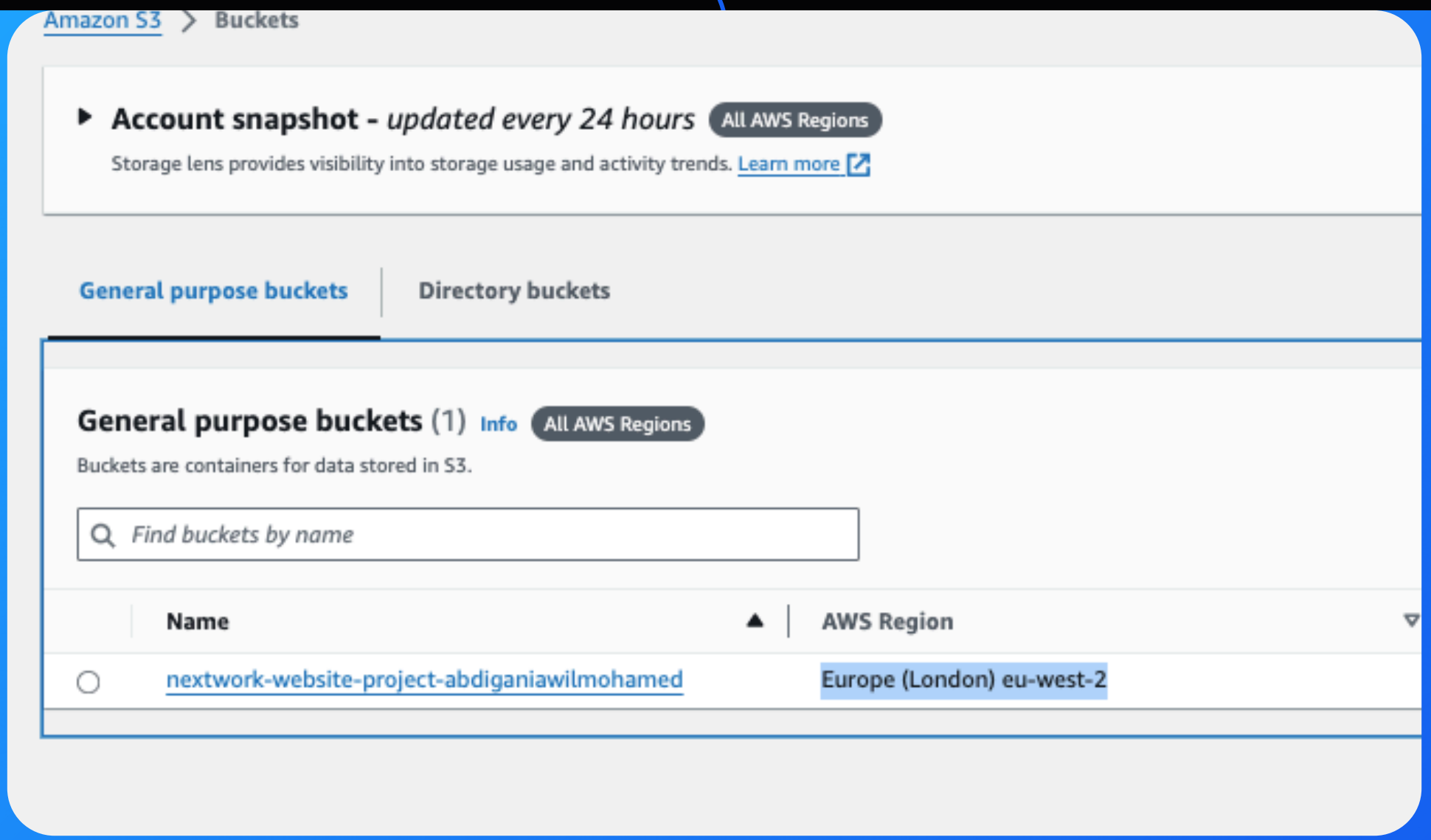
Create an S3 bucket

- Creating an Amazon S3 bucket took me 3 minutes.

- Some of the configuration steps include:
  - The bucket's Region: Europe (London) eu-west-2 as this is the closest region to me.
  - Access Control Lists: ACL is enabled. This allows you to control who can access and do anything with the object (i.e website files) by specifying permissions.
  - Bucket versioning: Enable. This helps us see all the different versions of the files I will upload.
  - Public Access: Enable Public Access. This therefore allows the entire world to see my object (website)/bucket and if it is blocked then others cannot get access to the website/bucket.

- S3 bucket names have to be globally unique, which means that no one else can use the same bucket name as you unless it is deleted.

My created bucket!



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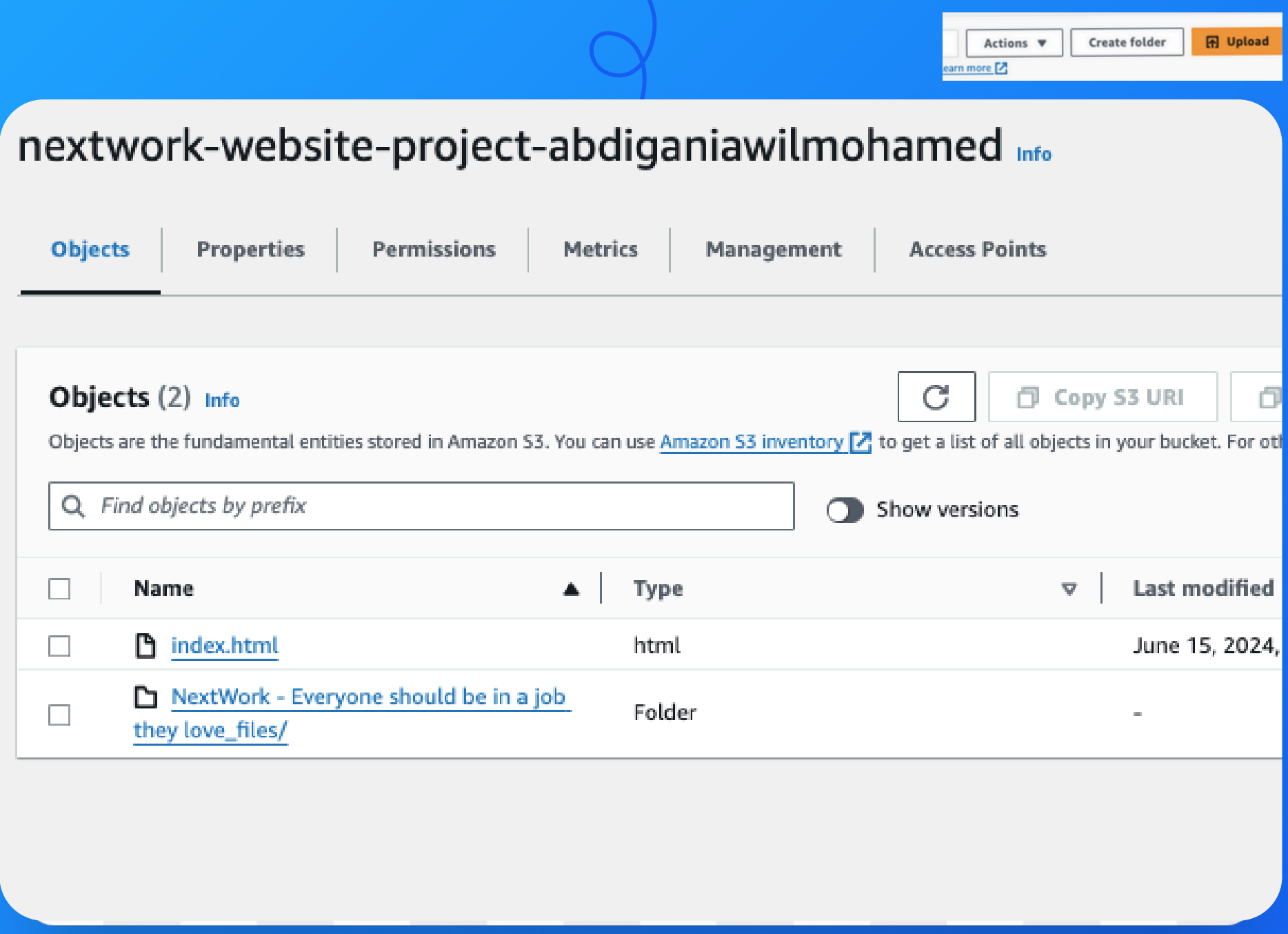
Upload website content to S3

- Next, I uploaded my website's files into my S3 bucket.
- There were two files to upload: index.html and NextWork - Everyone should be in a job they love_files Folder. Both these files compliment each other as the html works as the main page (Template) of the website and the extracted zip file contains static files like JavaScript and CSS to add interactivity and allow the website to be user-friendly.

Objects have now been successfully uploaded



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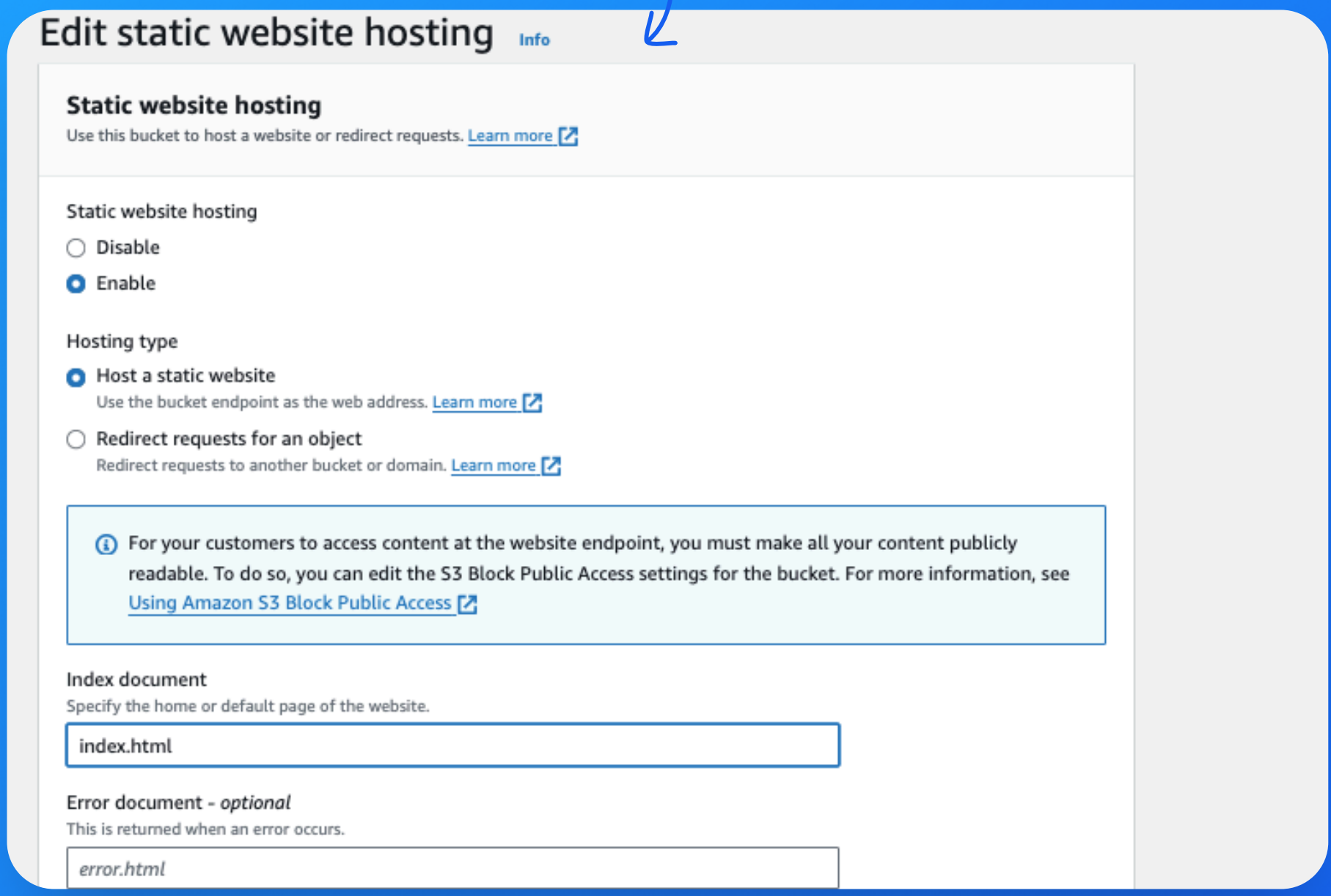
Static web hosting on S3

- Website hosting essentially stores your HTML file as well as other files for your website on a web server which is accesible online.

- To enable website hosting, I chose enable static website hosting. I ensured the hosting type was host a static website and for index document I entered the name of the html which was index.html.

- Once static website is enabled, S3 produces a bucket endpoint URL which allows us to access the static website that includes the contents from the html file.

Setting up static website hosting...



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An error!

- When I visited the bucket endpoint URL, I saw a 403 forbidden error pop up.

- The reason for this error was due to the fact that the objects were not made publicly accessible and therefore to allow website accessibility to the public you will need to use ACL as this rule make the objects public.

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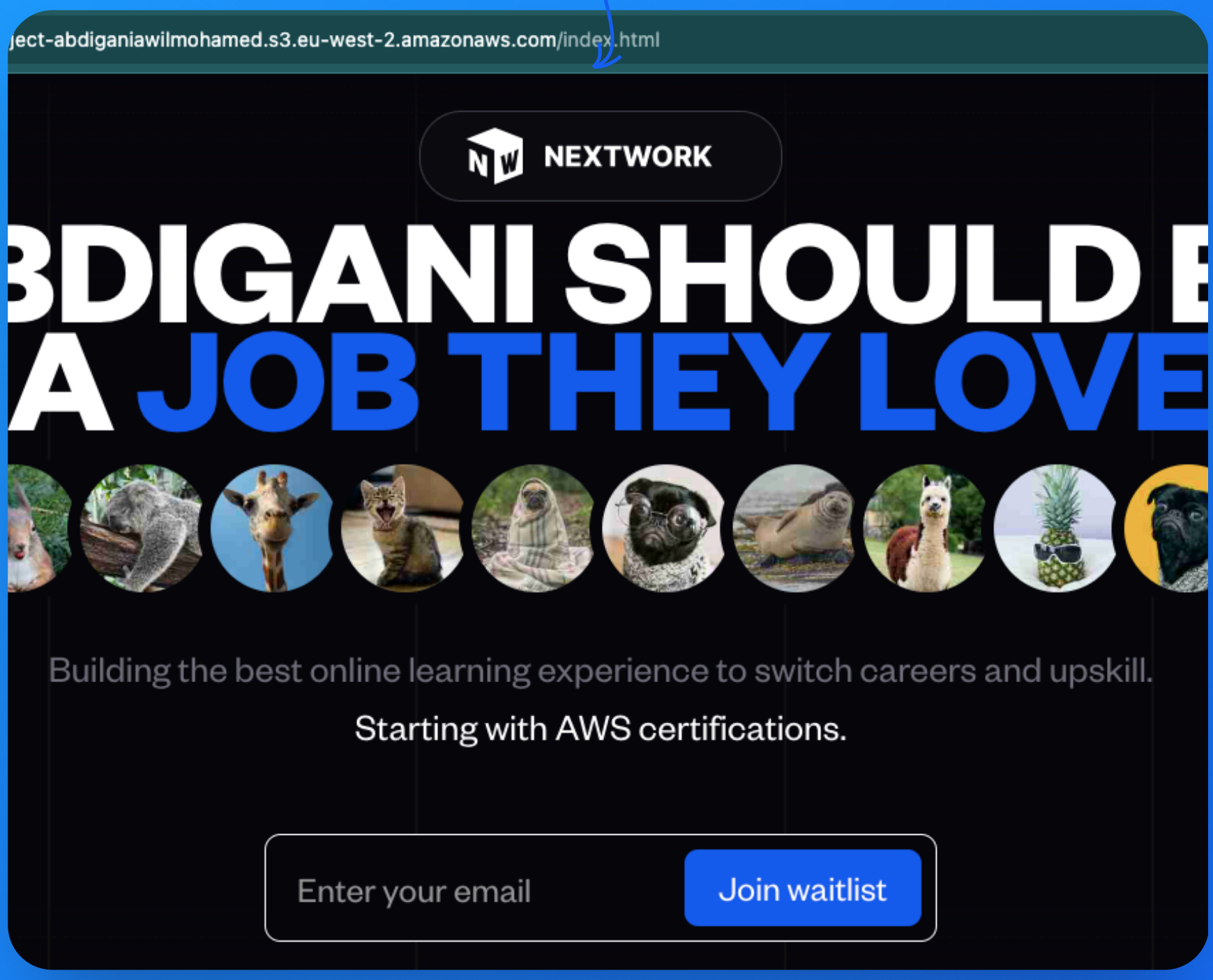
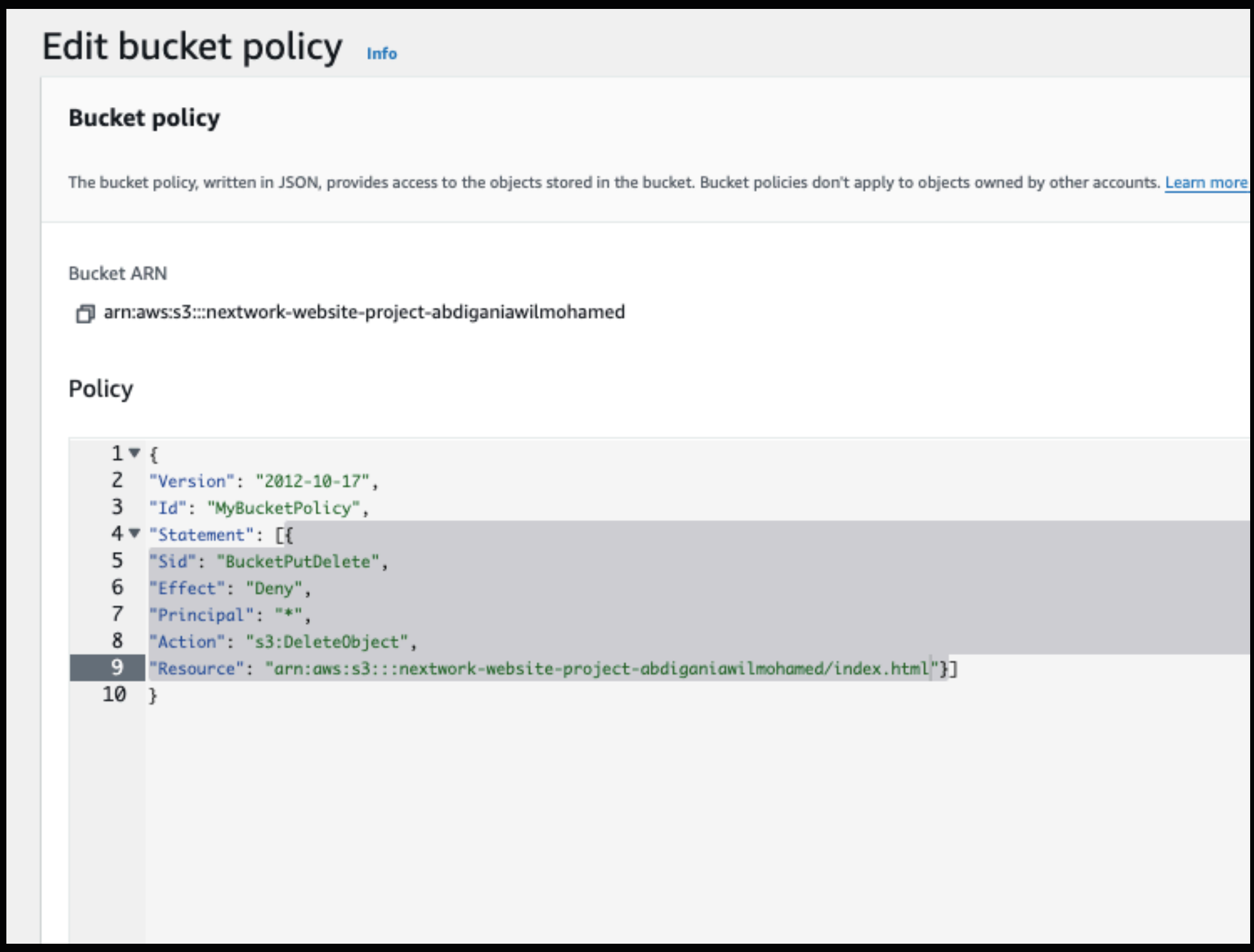
Voila! My website was up and running after resolving those errors



Extra: Using a bucket policy to secure your bucket

- I used bucket policy to protect my HTML file making sure no one can delete the file.
- As you can see below to perform this you will need to edit the bucket policy and ensure to include the name of the object in Resource for specification and the Action being delete object as well as the Effect being deny as this will deny anyone deleting the object.

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My key learnings

1. Static website hosting means displaying my html and web pages files on the server to make my website accessible to the public.

2. The settings I used to make my website available to the public were enabling ACL permission and enabling public access to the bucket as well.

3. My bucket endpoint URL initially still returned an error because the files on S3 were still private so I had to make the web page files public to resolve this through ACL.

4. One thing I didn’t expect was how quick and simple it is to host a static website using S3. There’s not much complications but I’ll need to remember to ensure that ACL is public to avoid seeing errors. I will definitely use this in the future.