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# Host a Website on Amazon S3

SA

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The screenshot shows the homepage of the Nextwork website. At the top, there's a dark header with the Nextwork logo. Below it, a large, bold headline reads "EVERYONE SHOULD BE IN A JOB THEY LOVE" with a blue heart icon. Underneath the headline is a horizontal row of circular profile pictures of various people. To the right of these profiles is a small button labeled "You?". Below the headline, there's a short description: "Building the best online learning experience to switch careers and upskill. Starting with AWS certifications." At the bottom, there's a form with a placeholder "Enter your email" and a blue "Join waitlist" button. The overall design is clean and modern.

# Introducing Today's Project!

In this project, I will demonstrate how to host a website on Amazon S3. I am undertaking this project to learn how to store data on S3 for my website.

## Tools and concepts

Today, I used an Amazon S3 bucket and objects and configured bucket policies. This was an excellent project that showed the importance of security regarding Amazon S3 buckets. Security settings such as preventing users from deleting your index.html file, which is publicly accessible online, are essential.

## Project reflection

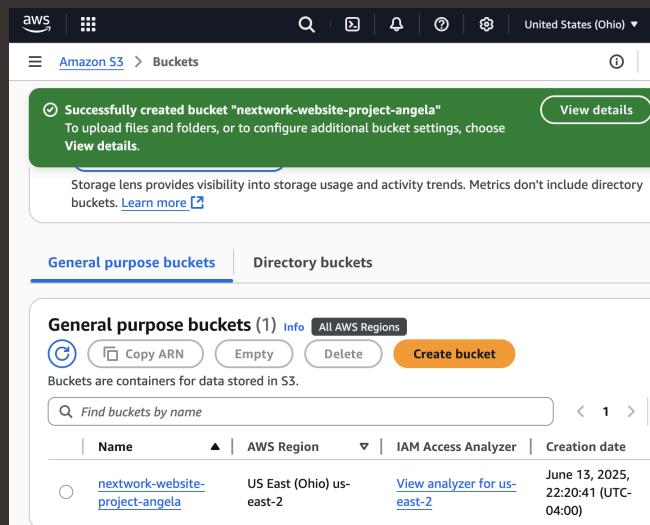
I completed this project in under an hour. The challenging part was making sure that my S3 objects were properly configured to avoid the 403 error. It was very rewarding to troubleshoot the issue and set up the bucket policies in Amazon S3.

# How I Set Up an S3 Bucket

Creating an S3 bucket took me only a few minutes to configure.

The Region I picked for my S3 bucket was US East (Ohio), us-east-2, because it was closer to my location.

S3 bucket names are globally unique! Any AWS account that is not mine cannot use my bucket unless I delete the bucket.



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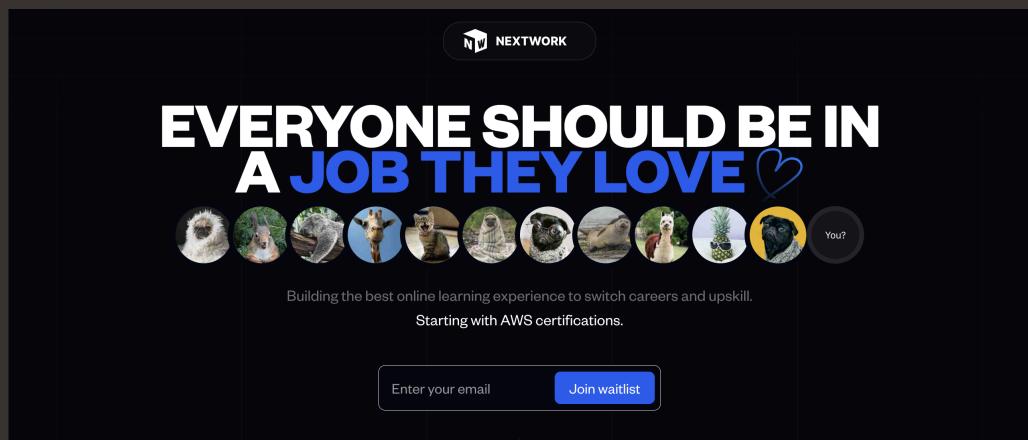
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# Upload Website Files to S3

## index.html and image assets

I uploaded two files to my S3 bucket - an HTML file and a zip file containing images.

Both files are essential for this project, as I am currently developing my website using S3.



# Static Website Hosting on S3

Website hosting enables your website to be accessible to the public on the Internet. It involves storing HTML or related files on a web server, allowing users to access them online. I have configured an S3 bucket for hosting, meaning the URL will direct users to an HTML file I recently uploaded.

To enable website hosting with my S3 bucket, I navigated to Properties, selected Static Web Hosting, and clicked Edit to enable the feature.

An ACL is a list that either allows or denies access to a resource. In this lab, I activated the ACL.



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# Bucket Endpoints

Once a static website is enabled, S3 produces a bucket endpoint URL and a web address allowing users to access and connect with the Amazon S3 bucket.

When I first visited the bucket endpoint URL, I encountered a 403 Forbidden error message. This error occurred because I had not changed the default settings for my objects. My files, such as HTML, were still marked as private, preventing users from accessing my website publicly.

## 403 Forbidden

- Code: AccessDenied
- Message: Access Denied
- RequestId: KNN8QECGXMLX8A5KY
- HostId: CjqWJDALC05odLMNPAJc+XfnPuTKG6sj32qJnYsot1+1HNnVO7H1tCLGmkLmvPJLT9VpVXVuFPOyIE5f1MhUU6bhB+xuyL697Si7HBZYQzGw=

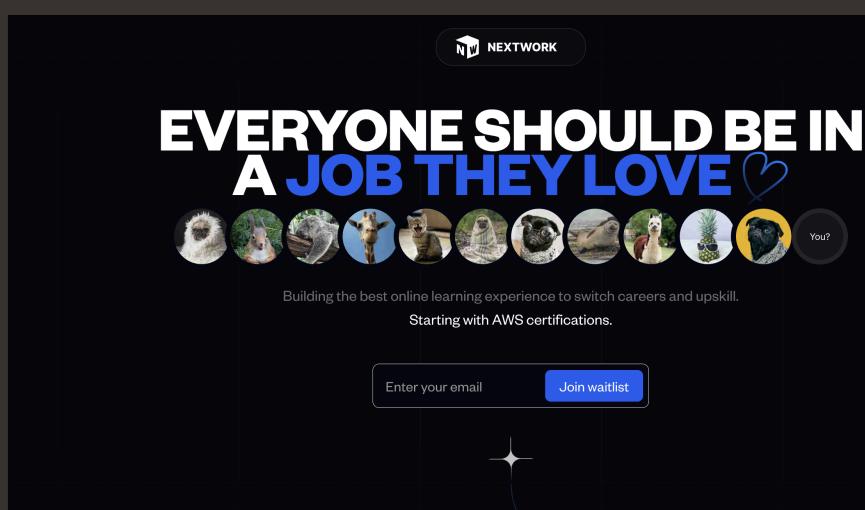
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# Success!

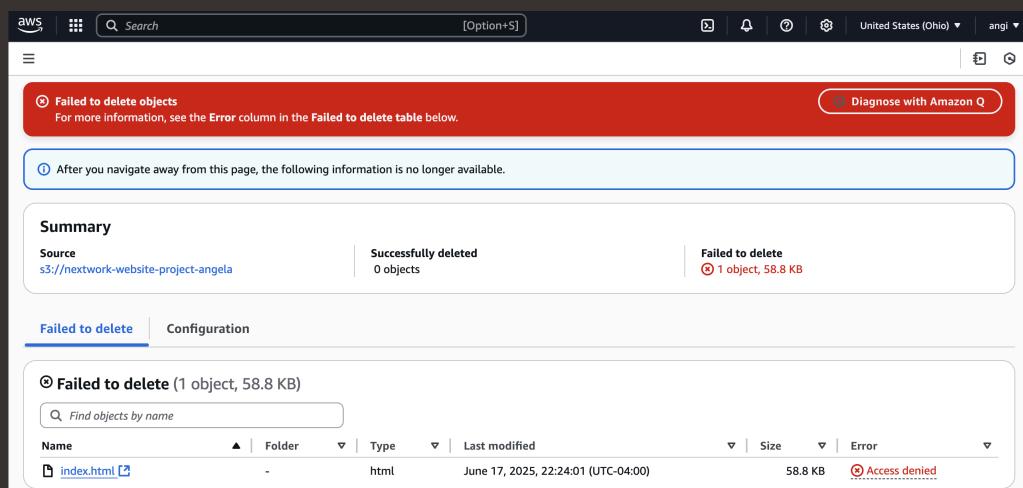
To resolve the 403 Forbidden error, I adjusted the settings for both the index.html and the zip folder files by clicking the 'Actions' button and selecting 'Make public using ACL.'



# Bucket Policies

Bucket policies are an alternative to ACLs that manage the permissions users have regarding actions allowed or disallowed on an S3 bucket.

My bucket policy is set up to prevent users from deleting my index.html S3 object. I tested this by attempting to delete the object and received an error message indicating that the action is not permitted. This restriction is enforced by the bucket policy.





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