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Host a Website on Amazon S3



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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 the header, a large, bold text reads "EVERYONE SHOULD BE IN A JOB THEY LOVE" with a blue heart icon. Underneath this text is a horizontal row of circular profile pictures of various animals like a dog, a deer, a goat, a cat, and a lizard. To the right of these animal profiles is a small circular placeholder with the text "You?". Below the animal row, there's a line of text: "Building the best online learning experience to switch careers and upskill. Starting with AWS certifications." At the bottom of the screenshot, there's a form with a text input field labeled "Enter your email" and a blue button labeled "Join waitlist".



Introducing Today's Project!

In this project, I will demonstrate how to use S3 to host a static website. I'm doing this project to learn about AWS and cloud services and how they can be used to store objects in cloud and even host websites.

Tools and concepts

Services I used were Amazon S3. Key concepts I learnt include Uploading static website files, Index.html, bucket endpoint URLs and ACLs and how they control access to our bucket objects.

Project reflection

This project took me approximately 45 minutes. The most challenging part was resolving the 403 forbidden error. It was most rewarding to see the webpage load live and be public to the world.



How I Set Up an S3 Bucket

Creating an S3 bucket took me less than 5 minutes. We needed to learn a few new concepts like Block Public access, ACLs, but once that learning is done , we can create bucket in even shorter time in the future.

The Region I picked for my S3 bucket was Mumbai, because its the region that's closest to me. It's the best practice to pick the region closest to us because it lowers time to retrieve our things (aka latency) and costs.

S3 bucket names are globally unique! This means no two AWS S3 buckets in the entire world can have the same name. They have to be completely unique regardless of the region or the account ID.



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General purpose buckets Directory buckets

General purpose buckets (5) [Info](#) [All AWS Regions](#)

Buckets are containers for data stored in S3.

Q nextwork-website-project-damienworks X 1 match

Name	AWS Region	IAM Access Analyzer	Creation date
nextwork-website-project-damienworks	Asia Pacific (Mumbai) ap-south-1	View analyzer for ap-south-1	July 7, 2025, 14:20:38 (UTC+05:30)

Copy ARN Empty Delete Create bucket



Upload Website Files to S3

index.html and image assets

I uploaded two files to my S3 bucket - they were an index.html file (This determines the structure i.e What goes inside your website) and a folder of images and assets (This will fill in the website with images and things to look at)

Both files are necessary for this project as index.html determines the structure. But the structure alone doesn't illustrate the content of the website. So we need the pictures and assets to be displayed in the website.

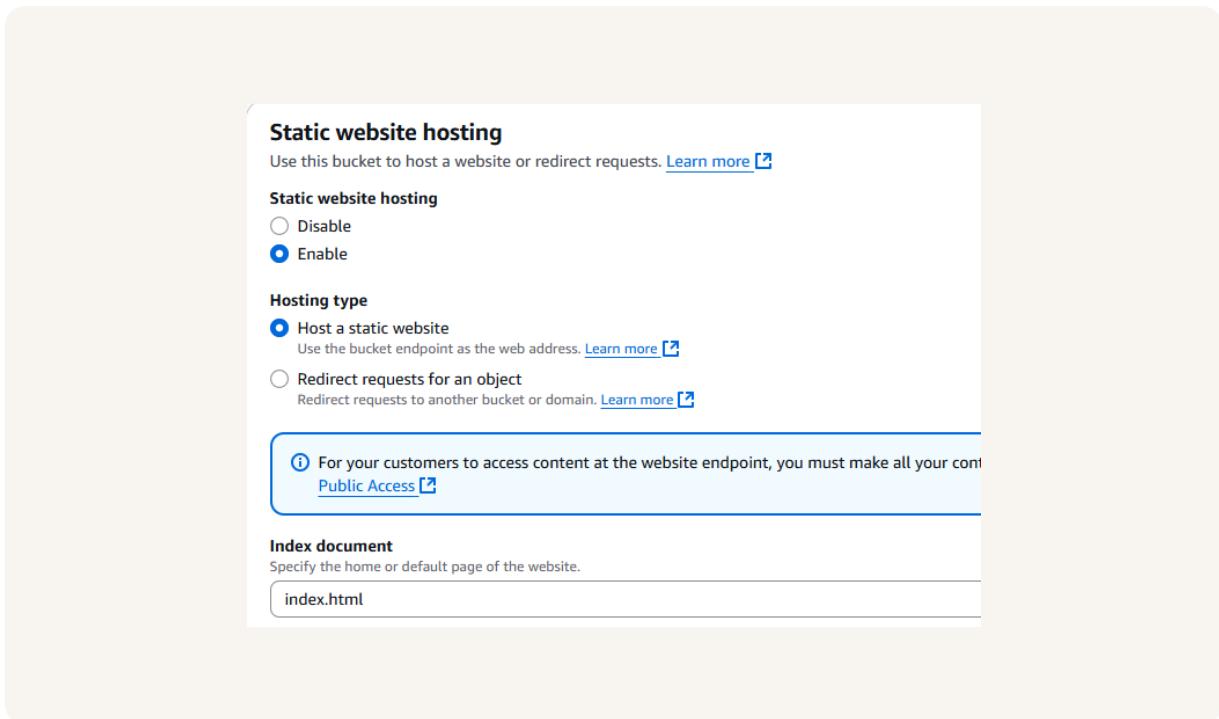
The screenshot shows the AWS S3 console interface. At the top, there's a header with the title 'Objects (2)'. Below it, a message says 'Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 Inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)'. There are several buttons in the top right: 'Actions', 'Create folder', and 'Upload' (which is highlighted in orange). Below the message is a search bar with the placeholder 'Find objects by prefix' and a 'Show versions' button. A table follows, with columns: 'Name', 'Type', 'Last modified', 'Size', and 'Storage class'. The first item is 'index.html' (Type: HTML, Last modified: July 7, 2025, 16:14:36 (UTC+05:30), Size: 58.8 KB, Storage class: Standard). The second item is a folder named 'NextWork - Everyone should be in a job they love_files/' (Type: Folder). Both items have small checkboxes to their left.

Static Website Hosting on S3

Website hosting means putting our website files on a web server which is a special computer designed to turn the files into website page that people can visit.

To enable website hosting with my S3 bucket, I went into the properties tab in the bucket, enabled static website hosting and also labeled "index.html" as our index document. i.e This is the document we are trying to host.

An ACL (Access Control List) is a way to configure permission setting in a bucket. We enabled ACL so that we can access to website files later.





Bucket Endpoints

Once static website is enabled, S3 produces a bucket endpoint URL, which is a url that take you and anyone on the internet to the website that you are hosting.

When I first visited the bucket endpoint URL, I saw a 403 Forbidden error. The reason for this error was that objects in a bucket are public by default even though we switched off the "Block all Public Access".

403 Forbidden

- Code: AccessDenied
- Message: Access Denied
- RequestId: V9KZ7CGKC1Q9PVVX
- HostId: 1ScF+QIR2UQX+bSfM9ntVELeQYe8JxUVIlz6pa3nLGLZiiMJWEOM7VfGZC+W+VxFNy+VwsqsN4U=

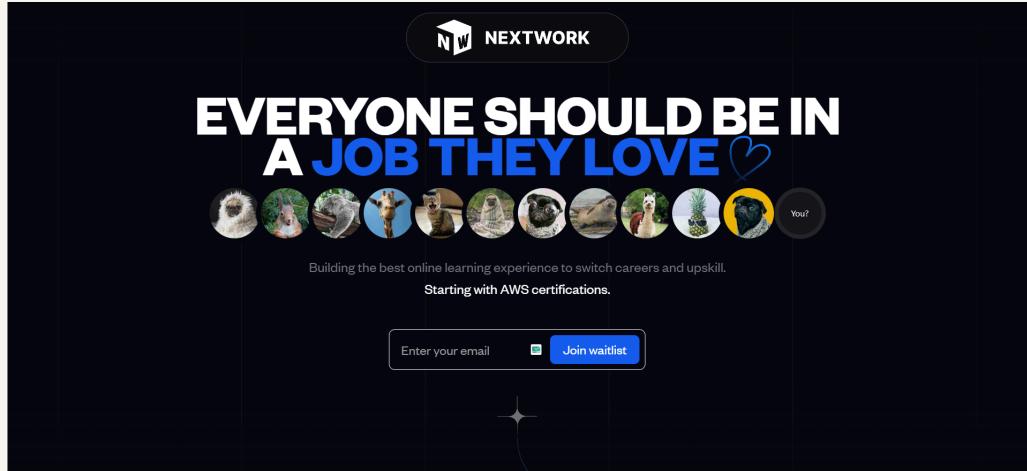


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Success!

To resolve this 403 Forbidden error, I updated the access settings of the files inside our bucket too. Using ACLs, we made our bucket files Public. Once I checked the S3 bucket endpoint, we can see a webpage all loaded up..





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