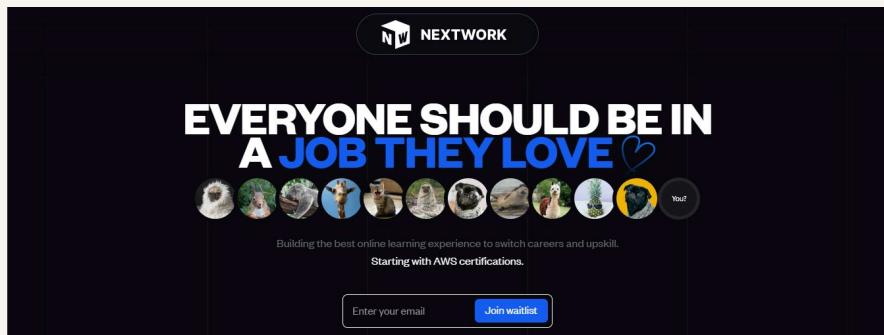


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Host a Website on Amazon S3



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Introducing Today's Project!

What is Amazon S3

Amazon S3 is a secure, scalable object storage service used for storing and retrieving data online. It is useful for backups, websites, and large-scale data storage with high availability.

How I used Amazon S3 in this project

This project covered uploading and sharing files with pre-signed URLs, securing access with bucket policies, updating website files efficiently, hosting on a custom domain, enabling ACLs, setting up DNS, and managing S3 resources.

One thing I didn't expect in this project was...

One thing I didn't expect in this project was facing a connection error due to bucket permissions. Also, ensuring the index.html file and its related assets were correctly uploaded and referenced was crucial for the website to display properly.

This project took me...

This project took me about an hour, including setup, file uploads, and troubleshooting.



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How I Set Up an S3 Bucket

Creating an S3 bucket took me just a few seconds using the AWS Console or CLI.

The Region I picked for my S3 bucket was Mumbai because it is the nearest region to me, which helps reduce latency and improves performance.

S3 bucket names are globally unique! This means that each bucket name must be different across all AWS accounts and regions. No two buckets can have the same name, ensuring that every bucket has a unique identifier in the AWS ecosystem.

The screenshot shows the AWS S3 console interface. At the top, there's a header with the title "General purpose buckets (1)" and a "Create bucket" button. Below the header, a table displays one bucket entry:

Name	AWS Region	IAM Access Analyzer	Creation date
nextwork-website-fazza	Asia Pacific (Mumbai) ap-south-1	View analyzer for ap-south-1	February 10, 2025, 15:51:21 (UTC+05:30)



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Upload Website Files to S3

index.html and image assets

I uploaded two files to my S3 bucket – index.html and the unzipped folder containing my website assets.

Both files are necessary for this project as index.html is the main webpage, and the folder contains essential assets for proper display and functionality.

The screenshot shows the AWS S3 console interface. At the top, there's a navigation bar with tabs for 'Objects', 'Properties', 'Permissions', 'Metrics', 'Management', and 'Access Points'. Below the navigation bar, the title 'nextwork-website-fazza' is followed by a 'Info' link. The main area is titled 'Objects (2)'. A sub-instruction 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](#)'.

The object list table has columns: Name, Type, Last modified, Size, and Storage class. There are two items listed:

- _index.html**: html file, last modified February 10, 2025, 16:08:41 (UTC+05:30), size 219.0 B, Standard storage class.
- NextWork - Everyone should be in a job they love_files/**: Folder.



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Static Website Hosting on S3

Website hosting means storing website files on a server and making them accessible on the internet so users can visit the site using a URL.

To enable website hosting with my S3 bucket, I went to the bucket properties, enabled static website hosting, specified index.html as the default document, and saved the settings.

An ACL is an Access Control List, which is a set of rules that define who can access an S3 bucket or object and what actions they can perform (read, write, etc.). I enabled ACLs to manage permissions at the object level and allow specific use.

The screenshot shows the 'Edit static website hosting' configuration page. It includes fields for enabling static website hosting, selecting a hosting type (Host a static website), specifying an index document (index.html), and defining an error document (error.html). A note about public access is also present.

Edit static website hosting Info

Static website hosting
Use this bucket to host a website or redirect requests. [Learn more](#)

Disable
 Enable

Hosting type
 Host a static website
Use the bucket endpoint as the web address. [Learn more](#)
 Redirect requests for an object
Redirect requests to another bucket or domain. [Learn more](#)

For your customers to access content at the website endpoint, you must make all your content publicly readable. To do so, you can edit the S3 Block Public Access settings for the bucket. For more information, see [Using Amazon S3 Block Public Access](#).

Index document
Specify the home or default page of the website.
index.html

Error document - optional
This is returned when an error occurs.
error.html

Redirection rules - optional
Redirection rules, written in JSON, automatically redirect webpage requests for specific content. [Learn more](#)



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Bucket Endpoints

Once static website hosting is enabled, S3 produces a bucket endpoint URL, which is a public web address that allows users to access the hosted website directly from the S3 bucket.

When I first visited the bucket endpoint URL, I saw an access denied error. The reason for this error was that my S3 bucket's permissions were not set to allow public access, preventing the website from being viewed.

403 Forbidden

- Code: AccessDenied
- Message: Access Denied
- RequestId: NTAQ6MB2852T3PRH
- HostId: nBrktP7fwaIPb1CSqBglTIAhJTvuOpvEFniUDHSv9pyIm9OA+VFyW90MK7Ggd3NsAsVbUKUKllc=

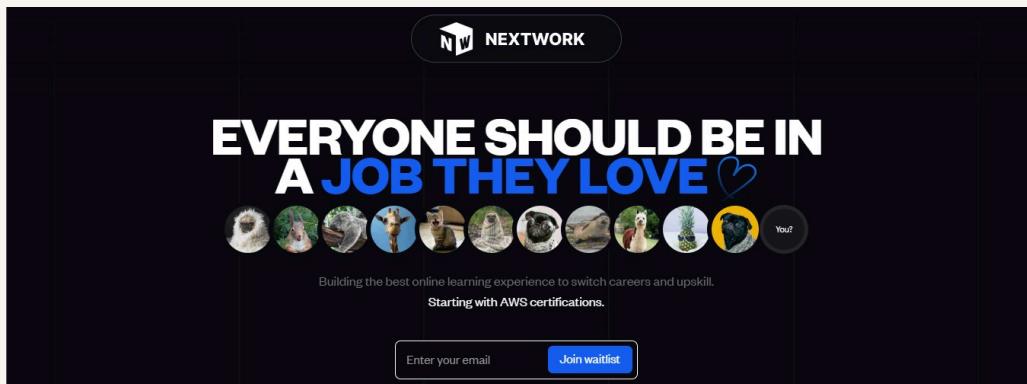


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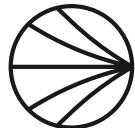
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Success!

To resolve this connection error, I updated the bucket policy to allow public read access, adjusted the "Block Public Access" settings, and ensured that my index.html file and related assets were correctly uploaded and referenced.



The image shows a screenshot of the NextWork website landing page. At the top right is the NextWork logo. Below it is a large, bold headline: "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 animals and a person. Below this row is a small line of text: "Building the best online learning experience to switch careers and upskill." and "Starting with AWS certifications." At the bottom is a call-to-action button labeled "Join waitlist".



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