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# Host a Website on Amazon S3



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The graphic features a dark background with a grid of circular images showing various animals like a pug, a kangaroo, a koala, a giraffe, a cat, a seal, a llama, and a dog. In the top right corner, there's a yellow circle containing a black silhouette of a person with the text "You?". At the bottom, there's a white input field with the placeholder "Enter your email" and a blue button labeled "Join waitlist". The text "EVERYONE SHOULD BE IN A JOB THEY LOVE" is prominently displayed in large, bold, white and blue letters, with a small blue heart icon next to the word "LOVE". The "NEXTWORK" logo is at the top center.

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# Introducing Today's Project!

In this project i will be demonstrating 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 the Cloud AND even host websites .

## Tools and concepts

Services I used were Amazon S3 . Key concepts I learnt includes bucket policies, uploading static website files, index.html, bucket endpoint URLs , ACLs and how they control access to our bucket's objects

## Project reflection

This project took me approximately 1hr+ including demo time,quiz time and secret mission time .The most challenging part was uploading the folders into the bucket correctly, It was most rewarding to see the website go live and public to the world



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# How I Set Up an S3 Bucket

Creating an S3 bucket took me about 5 -10 minutes- I took how time to learn a few new concepts like enabling ACLs and Block Public Access. It should take about 2 minutes in the future

The Region I picked for my S3 bucket was Ohio us-east-2 because it is the closest - it's best practice to pick the region close to you because it lowers the time to retrieve your things (aka latency) and costs(although this might not be important for this project - just best practice)

S3 bucket names are globally unique! This means that no other Amazon S3 buckets in the entire world can have the same bucket name (unless an existing bucket name is deleted). They have to be completely unique regardless of the region or Amazon Id



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The screenshot shows the AWS S3 Buckets page. At the top, there is a green success message: "Successfully created bucket 'nextwork-website-project-babanjoba'. To upload files and folders, or to configure additional bucket settings, choose View details." Below this, there is an "Account snapshot - updated every 24 hours" section with a link to "View Storage Lens dashboard". The main table lists "General purpose buckets (1)" with the following details:

Name	AWS Region	IAM Access Analyzer	Creation date
nextwork-website-project-babanjoba	US East (Ohio) us-east-2	<a href="#">View analyzer for us-east-2</a>	July 6, 2025, 13:51:10 (UTC+01:00)

Actions available for the bucket include Copy ARN, Empty, Delete, and 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 the website) and a folder of images and assets (i.e this will fill in the website with images and things to look at ) index.html NextWork - Everyone...love\_files.zip

Both files are necessary for this project as files needed as index for html determines the structure . However, the structure alone doesn't illustrate the content of the website (i.e if index.html says "insert image here",it might not have the actual image to display - i need to supply that image seperately that is why i have two image uploaded . The index.html file to direct what is inside the website page ,but also a bunch of assets like images that the website is trying to display)



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Amazon S3 > Buckets > nextwork-website-project-babanjoba

nextwork-website-project-babanjoba [Info](#)

Objects | Metadata | Properties | Permissions | Metrics | Management | Access Points

**Objects (2)**

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](#)

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	<a href="#">index.html</a>	html	July 6, 2025, 14:16:12 (UTC+01:00)	58.8 KB	Standard
<input type="checkbox"/>	<a href="#">NextWork - Everyone should be in a job they love_files/</a>	Folder			



# Static Website Hosting on S3

Website hosting means putting websites files on a webserver which is a computer designed to turn the website into a website page that people can visit .Hence, making the website public on the internet.

To enable website hosting with my S3 bucket, I went into the properties tab of the bucked and enabled Static web hosting and also labeled "index.html" as the index document (i.e this is the document i am trying to host)

An ACL aka Access Control List is a way to configure permission settings inside a bucket .I enabled ACLs so that i can control access to my website files later. Although AWS recommends disabling ACLs . I will be enabling it to learn how ACLs work and compare it to bucket policies later



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The screenshot shows the 'Edit static website hosting' configuration page for a bucket named 'nextwork-website-project-babanjoba'. The 'Static website hosting' section is enabled. Under 'Hosting type', 'Host a static website' is selected. The 'Index document' field contains 'index.html'. A note at the bottom of the page states: '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.'

Amazon S3 > Buckets > nextwork-website-project-babanjoba > Edit static website hosting

Edit static website hosting [Info](#)

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

**Static website hosting**  
 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



# Bucket Endpoints

Once static website is enabled, S3 produces a bucket endpoint URL which is a URL that takes anyone with the link to the website that i am hosting

When I first visited the bucket endpoint URL, I saw an ERROR and that error is called a 403 Forbidden error. The reason for this error was that objects in the bucket are public by default - Even though i switched off the "Block all public access" .The website files themselves are still completely private inside . I need to manage their access settings privately - They need to be public files too for the public to see the contents of my website

## 403 Forbidden

- Code: AccessDenied
- Message: Access Denied
- RequestId: 3XEGQ7QATJM6MGHK
- HostId: ntV3A2WTDDrODWHsHCPuJqn9WvsgyGeBUqPgszQLiRIFkgY22xJp3pKnIUFfAk9s0Yd+dzkHhPM=

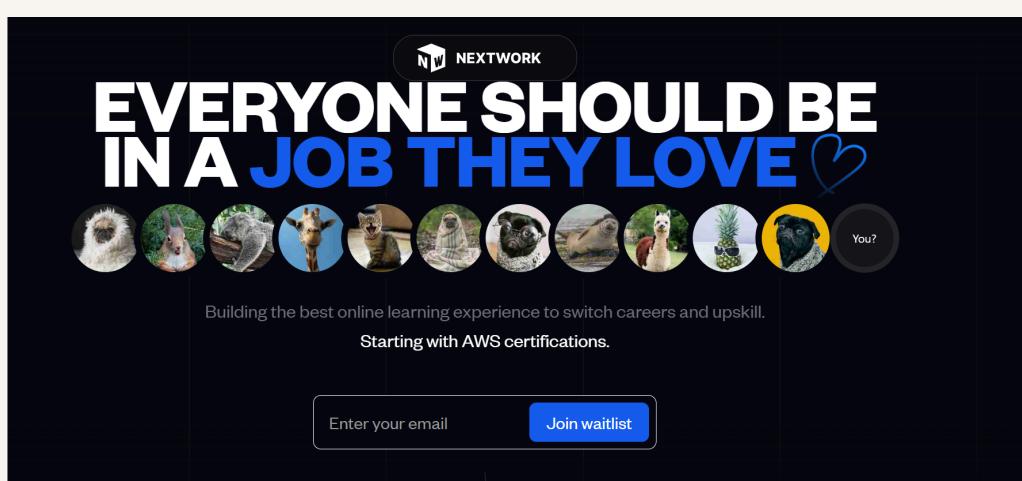


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# Success!

To resolve this 403 Forbidden error, I updated the access settings inside the bucket files .Using ACLs i made my bucket file public and when i checked my URL (Bucket end point) i could see a webpage all loaded up



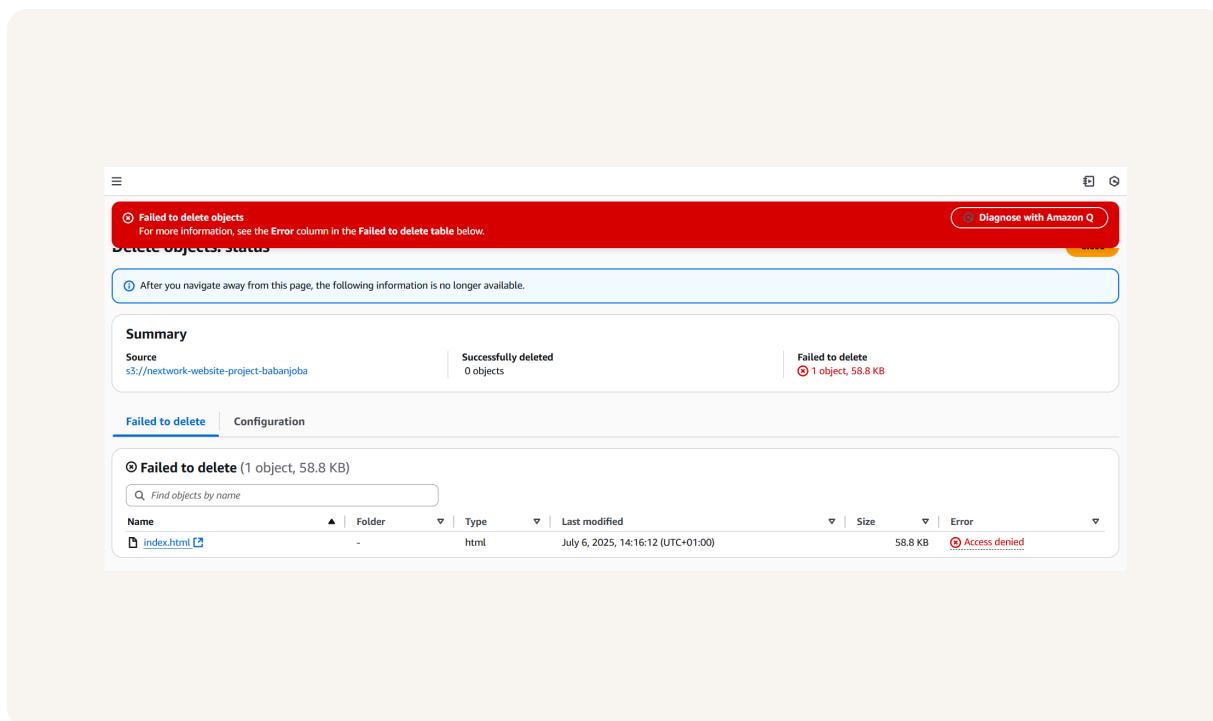
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# Bucket Policies

An alternative to ACLs are bucket policies, which are rules that determines who is allowed or not allowed to do something. The benefit of using bucket policies is that you can have greater control of the ACTIONS that people are allowed or not allowed to do . while ACLs are useful for controlling public access to individual objects inside the bucket

My bucket policy denies everyone from deleting the "index.html" file. I tested this by trying to delete the uploaded "index.html" file and saw a permission denied ERROR message pop up - This suggests that the bucket policy added worked . It successfully stopped me from deleting the objects i wanted to protect





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