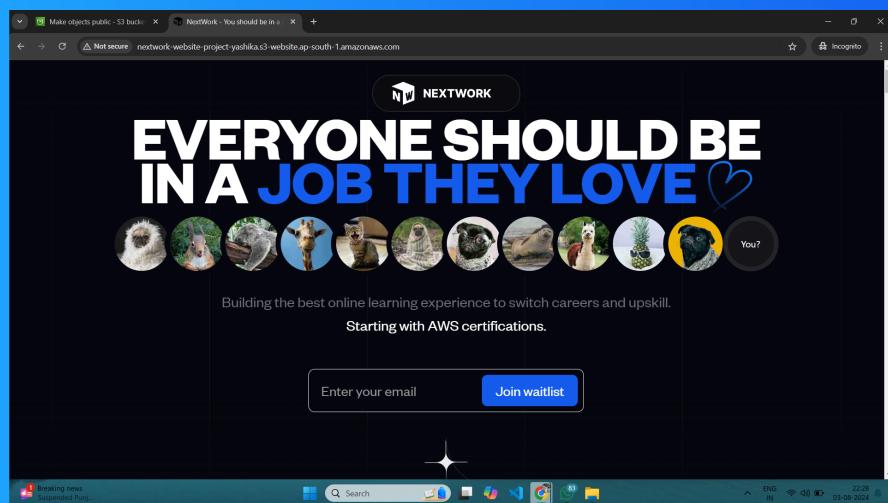




# Host a Website on Amazon S3



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# Introducing Today's Project!

## What is Amazon S3

Amazon Simple Storage Service (Amazon S3) is an object storage service that offers industry-leading scalability, data availability, security, and performance. You can use Amazon S3 to store and retrieve any amount of data at any time, from anywhere.

## How I used Amazon S3 in this project

In today's project, I used Amazon S3 to host a static website. I uploaded the index.html file and associated resources to an S3 bucket, enabled static website hosting, and configured the bucket's permissions to make the site accessible via URL.

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

One thing I didn't expect in this project was encountering the "403 Forbidden" error due to default bucket permissions. I had to adjust the ACL and bucket policy to make the website publicly accessible, which was an additional step .

## This project took me...

The project took me about an hour. This included uploading the files, configuring the S3 bucket for website hosting, and troubleshooting permission issues to ensure the site was accessible.



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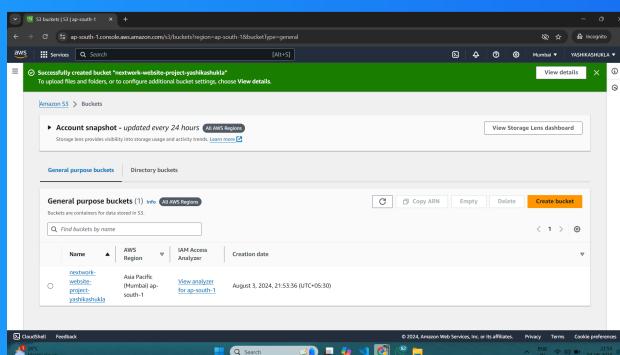
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# How I Set Up an S3 Bucket

Creating an S3 bucket took me just a few clicks through the AWS Management Console, selecting the desired region and settings.

The Region I picked for my S3 bucket was ap-south-1 because it offers low latency and is often the most cost-effective option with a high availability zone count.

S3 bucket names are globally unique! This means that once a name is taken by any AWS account, no other account across the world can use that same name for a bucket, ensuring there are no naming conflicts within the entire AWS ecosystem.





# Upload Website Files to S3

## index.html and image assets

I uploaded two files to my S3 bucket - they were index.html and a folder named NextWork - Everyone should be in a job they love\_files.

Both files are necessary for this project as index.html serves as the main webpage, while the NextWork - Everyone should be in a job they love\_files folder contains essential resources like images, stylesheets etc . that the webpage relies on .

The screenshot shows the AWS S3 console interface. The URL in the browser is [ap-south-1.console.aws.amazon.com/s3/buckets/nextwork-website-project-yashika?region=ap-south-1&bucketType=general&tab=objects](https://ap-south-1.console.aws.amazon.com/s3/buckets/nextwork-website-project-yashika?region=ap-south-1&bucketType=general&tab=objects). The page displays a list of objects in the 'Objects' tab:

Name	Type	Last modified	Size	Storage class
index.html	html	August 3, 2024, 22:14:32 (UTC+05:30)	58.8 KB	Standard
NextWork - Everyone should be in a job they love_files/	Folder	-	-	-



# Static Website Hosting on S3

Website hosting means making a website accessible on the internet by storing its files on a server, allowing users to visit the site using a domain name.

To enable website hosting with my S3 bucket, I configured the bucket settings to enable static website hosting, specified index.html as the default document, and set appropriate permissions to make the content publicly accessible.

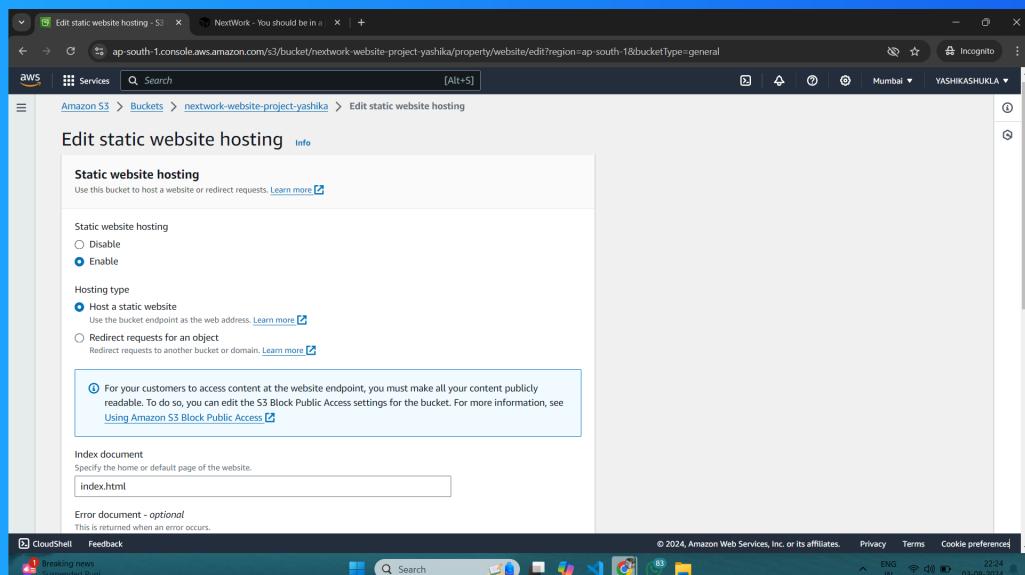
## Access Control Lists (ACL)

An ACL (Access Control List) is a set of rules in AWS that defines which users or system processes have permissions to access specific S3 bucket objects, specifying actions like read, write, or execute.



# Bucket Endpoints

Once static website hosting is enabled, S3 produces a bucket endpoint URL, which is a unique URL that allows users to access the hosted website directly through their web browsers.





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# An error!

When I first visited the bucket endpoint URL, I saw a "403 Forbidden" error, indicating that access to the content was denied due to insufficient permissions or lack of public access settings.

The reason for this error was that I did not tick the option to make the content public using ACL, which prevented access to the files from outside the bucket.

## 403 Forbidden

- Code: AccessDenied
- Message: Access Denied
- RequestId: 4ZMVMNG5MZRG59X5
- HostId: wgoDK/cO9PD0N5oStfKicSdBiSMPxB3MvNu2kOwl21/s0tBJL76nua766P/8SOW5mET8hwRHK5o=

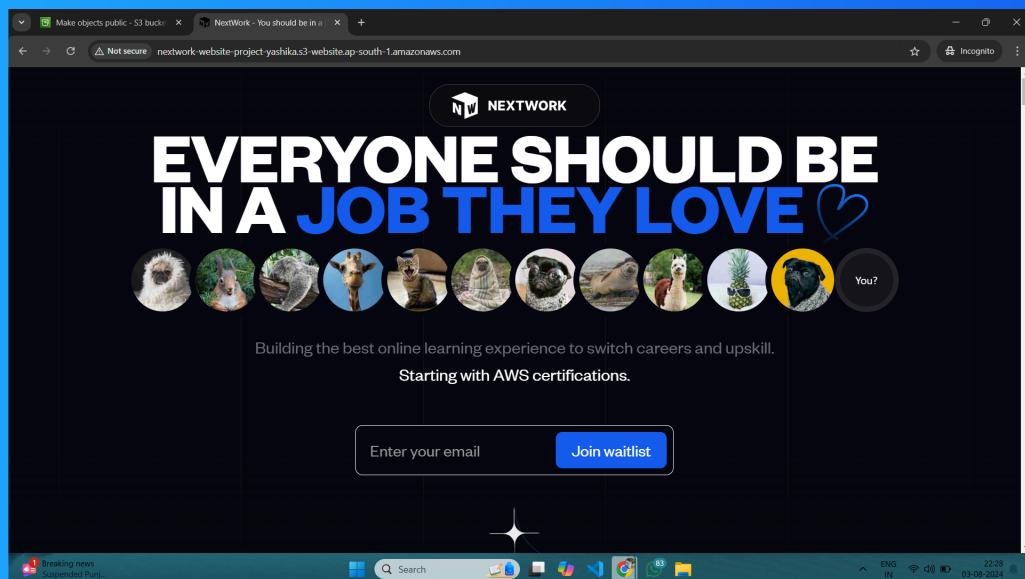


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# Success!

To resolve this connection error, I updated the bucket policy to allow public read access to the files or adjusted the ACL settings to ensure that the content is accessible to everyone by refreshing the tab.





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