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# Host a Website on Amazon S3



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# Introducing Today's Project!

## What is Amazon S3

Amazon S3 (Simple Storage Service) is a cloud-based storage service where we can store & retrieve any amount of data at anytime. It's useful because it's highly durable, scalable & accessible from anywhere, perfect for backing up data & sharing files

## How I used Amazon S3 in this project

In today's project! I probably used Amazon S3 to store my website files (HTML, images) and configured S3 to serve these files over the internet. This way, S3 acts as my web server, and made my site accessible to anyone online.

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

It's always exciting when a project turns out better than expected. I didn't except the outcome like how the website turned out to be. It's a wonderful feeling to see our Little work gets done, especially it motivates us to keep pushing forward.

## This project took me...

As a beginner, the time it took me more than an hour to complete a website hosting project on Amazon S3. i wasn't much familiar with the tools and the complexity of my website. To create a simple static website the step by step guide helped me a lot.



# How I Set Up an S3 Bucket

Creating an S3 bucket took me about 10-15 mins. This included logging into AWS Management Console, navigating to S3 service, clicking "Create bucket," & steps to name bucket, selecting region & configure basic settings. The process is user friendly.

The Region I picked for my S3 bucket was Asia (Mumbai) because it's geographically closer to my target, which helps reduce latency & improve the website's loading speed for me in that region. using a nearby region can sometimes be more cost-effective

S3 bucket names are globally unique! This means each bucket name must be distinct across all existing buckets in Amazon S3. No two buckets can have the same name. This uniqueness ensure that URL for bucket is specific to resources & prevents conflict

The screenshot shows the AWS S3 Buckets page. At the top, a green banner displays a success message: "Successfully created bucket 'website-project-harshitha'". Below the banner, there's a "View details" button and an "X" icon. The main content area has a header "Amazon S3 > Buckets" and a sub-header "Account snapshot - updated every 24 hours". It includes a "View Storage Lens dashboard" button. Below these, there are tabs for "General purpose buckets" (selected) and "Directory buckets". A sub-header "General purpose buckets (1) Info All AWS Regions" is shown, along with a note that buckets are containers for data stored in S3. There's a search bar "Find buckets by name" and a "Create bucket" button. The table below lists the single bucket: Name (website-project-harshitha), AWS Region (Asia Pacific (Mumbai) ap-south-1), IAM Access Analyzer (View analyzer for ap-south-1), and Creation date (August 5, 2024, 18:18:48 (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 - they were 'index.html' and 'NextWork - Everyone...love\_files.zip'.

Both files are necessary for this project as 'index.html' is main webpage that user will load when they visit the site, and 'NextWork - Everyone...love\_files.zip' likely contains resources such as images that the page references to display correctly

The screenshot shows the AWS S3 console interface. The top navigation bar includes 'website-project-harshitha' and 'Info'. Below the navigation are tabs for 'Objects', 'Properties', 'Permissions', 'Metrics', 'Management', and 'Access Points'. The 'Objects' tab is selected. The main area displays a table of objects:

Name	Type	Last modified	Size	Storage class
index.html	html	August 5, 2024, 18:58:49 (UTC+05:30)	58.8 KB	Standard
NextWork - Everyone should be in a job they love_files/	Folder	-	-	-

At the bottom of the table, there is a note: "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](#)".



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# Static Website Hosting on S3

Website hosting means storing website's files on a server that is connected to the internet so that people can access our website anytime. Hosting providers, like Amazon S3, offer the infrastructure and technologies needed to make website accessible.

To enable website hosting with my S3 bucket, I went to the AWS Management Console selected S3 bucket, navigated to "Properties" tab & then clicked on "Static website hosting" From there, I selected "Use this bucket to host a website" & saved changes

## Access Control Lists (ACL)

An ACL is an Access Control List, which is set of permissions that control who can access & perform actions on the objects in S3 bucket. I disabled ACL because Amazon S3 recommend using bucket policies & secure access control. Disabling ACLs is secure



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# Bucket Endpoints

Once static website hosting is enabled, S3 produces a bucket website endpoint URL, which is web address I use to access website. It looks like `http://website-project-harshitha.s3-website.ap-south-1.amazonaws.com`. This URL stores files in S3 bucket.

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.

Error document - optional



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# An error!

When I first visited the bucket endpoint URL, I saw the homepage of my website, as defined by the `index.html` file I uploaded. It displayed the content I had set up, confirming the static website hosting is configured correctly & my files are served

The reason for this error was likely the `index.html` file was configured as the default document for bucket. A 404 error indicates that requested resource couldn't be found, which often happens if bucket's website settings are not correctly set up.

## 403 Forbidden

- Code: AccessDenied
- Message: Access Denied
- RequestId: 4ZVMNG5MZRGS9X5
- HostId: wgoDK/cO9PD0N5oStfKicSdBISMPxB3MvNu2kOwl21/s0tBJL76nua766P/8SOW5mET8hwRHK5o=



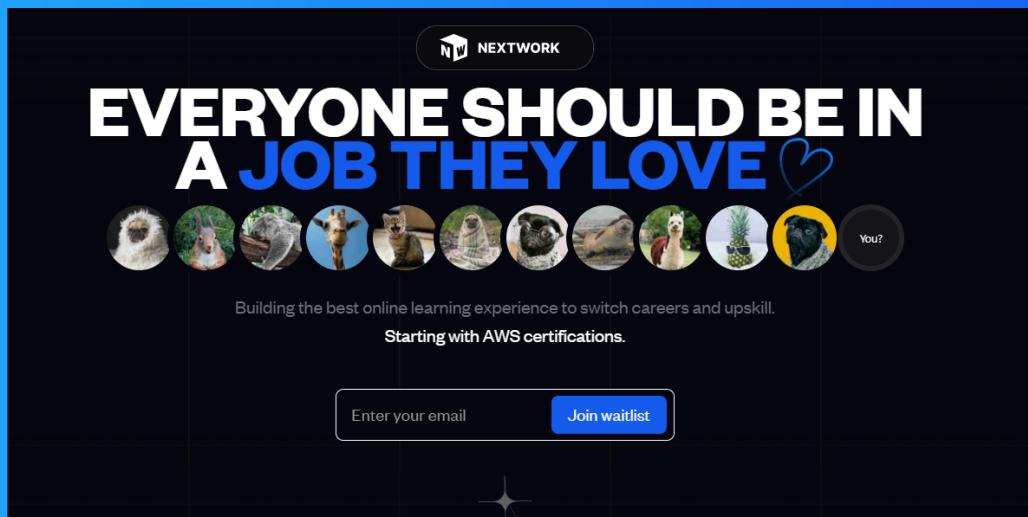
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# Success!

To resolve this connection error I checked the bucket's static website configuration to ensure that `index.html` was set as index document. I also verified if file was properly uploaded & that bucket's permissions were composed to allow public access





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