

[nextwork.org](http://nextwork.org)

# Host a Website on Amazon S3



Sr.80\_Sarthak Mahajan

The screenshot shows the homepage of the Nextwork website. At the top, there is a navigation bar with the Nextwork logo and several social media links labeled "alumni" and "student". Below the navigation bar, the main headline reads "EVERYONE SHOULD BE IN A JOB THEY LOVE" in large, bold, white letters, accompanied by a blue heart icon. Underneath the headline, a subtext states "Building the best online learning experience to switch careers and upskill." and "Starting with AWS certifications.". At the bottom of the page, there is a call-to-action button with the text "Enter your email" and a "Join waitlist" button. A small note at the bottom right says "ask S3 can you enable static website hosting".



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# Introducing Today's Project!

## What is Amazon S3

Amazon S3 is a scalable, secure, and durable cloud storage service by AWS. It allows users to store and retrieve data like files, images, and backups. S3 is cost-effective, highly durable, and offers flexible access control, making it ideal for various applications.

## How I used Amazon S3 in this project

In today's project, I used Amazon S3 to host the website files, including the index.html and asset folders (CSS, JavaScript, images). I configured the S3 bucket for static website hosting, made the files publicly accessible using ACLs, and ensured that they were correctly served.

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

One thing I didn't expect in this project was the need to manually adjust the permissions and access control settings for the S3 objects. While Amazon S3 provides powerful storage capabilities, ensuring the correct public access for website files can be challenging at times.

## This project took me...

This project took me an hour to complete. It involved setting up the S3 bucket for static website hosting, uploading the website files, and configuring the correct permissions and access control. Troubleshooting the 403 Forbidden error and ensuring the site loads correctly were key parts of the process.



# How I Set Up an S3 Bucket

Creating an S3 bucket took me just a few seconds, as AWS provides a simple and quick setup process. After selecting the bucket name, region, and configuring basic settings, the bucket was ready almost instantly.

The Region I picked for my S3 bucket was N. Virginia (us-east-1) because it is the default and most cost-effective region, offers lower latency for global access, and has the widest range of AWS services and feature availability.

S3 bucket names are globally unique! This means that no two AWS users, across any region, can create a bucket with the same name. Since S3 bucket names exist in a single global namespace, each name must be distinct to avoid conflicts and ensure seaml

The screenshot shows the AWS S3 console with the following details:

- Breadcrumbs:** Amazon S3 > Buckets
- Status Bar:** Successfully created bucket "nextwork-website-project-static-web". To upload files and folders, or to configure additional bucket settings, choose View details.
- Account snapshot:** updated every 24 hours. Storage lens provides visibility into storage usage and activity trends. Metrics don't include directory buckets. [Learn more](#).
- General purpose buckets:** (2) info All AWS Regions. Buckets are containers for data stored in S3.
- Bucket List:**

Name	AWS Region	IAM Access Analyzer	Creation date
network-vpc-endpoints-sarthak	US East (N. Virginia) us-east-1	<a href="#">View analyzer for us-east-1</a>	February 12, 2025, 18:58:54 (UTC+05:30)
nextwork-website-project-static-web	US East (N. Virginia) us-east-1	<a href="#">View analyzer for us-east-1</a>	February 17, 2025, 18:10:08 (UTC+05:30)
- Actions:** Copy ARN, Delete, Create bucket.



# 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 should be in a job they love\_files/. The index.html file is likely the main webpage for a static website, and the folder may contain additional resources such as images, CSS stylesheets, or JavaScript 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 likely contains supporting assets such as images, CSS stylesheets, or JavaScript files required by the webpage.

The screenshot shows the AWS S3 console interface. The top navigation bar includes the AWS logo, a search bar, and account information for United States (N. Virginia) and sarthakmahajan. Below the navigation is a breadcrumb trail: Amazon S3 > Buckets > nextwork-website-project-static-web. The main content area is titled "nextwork-website-project-static-web" with a "Info" link. A navigation bar below the title has tabs for Objects, Metadata, Properties, Permissions, Metrics, Management, and Access Points, with "Objects" being the active tab. A toolbar above the object list includes actions like Copy S3 URI, Copy URL, Download, Open, Delete, Actions (with a dropdown arrow), Create folder, and Upload. A "Find objects by prefix" input field and a "Show versions" button are also present. The object list table has columns for Name, Type, Last modified, Size, and Storage class. It shows two entries: "index.html" (Type: html, Last modified: February 17, 2025, 18:26:44 (UTC+05:30), Size: 58.8 KB, Storage class: Standard) and "NextWork - Everyone should be in a job they love\_files/" (Type: Folder). The table includes sorting and filtering options like "Name" and "Type".



# Static Website Hosting on S3

Website hosting means storing and serving website files on a server so that they can be accessed by users over the internet. In the case of AWS S3, static website hosting allows users to upload HTML, CSS, JavaScript, and other static files to an S3 bucket.

To enable website hosting with my S3 bucket, I went to the "Properties" tab of the bucket, scrolled down to the "Static website hosting" section, and enabled it. Then, I specified the index document (index.html) and, if needed, an error document. Fin

An ACL is an Access Control List, which is a set of permissions that define who can access specific AWS resources and what actions they can perform. I disabled ACLs because AWS recommends using bucket policies and IAM roles for more fine-grained and

The screenshot shows the AWS S3 console with the 'Edit static website hosting' configuration page. The top navigation bar includes the AWS logo, search bar, and account information for 'United States (N. Virginia)' and 'sarthakmahajan'. The main content area has a title 'Edit static website hosting' with a 'Info' link. It contains two sections: 'Static website hosting' and 'Hosting type'. Under 'Static website hosting', there is a note about using the bucket to host a website or redirect requests, with a 'Learn more' link. A radio button for 'Enable' is selected. Under 'Hosting type', another radio button for 'Host a static website' is selected, with a note about using the bucket endpoint as the web address and a 'Learn more' link. Below these sections is a note about making content publicly readable for website access, with a 'Using Amazon S3 Block Public Access' link. At the bottom, there are fields for 'Index document' (set to 'index.html') and 'Error document - optional' (set to 'error.html').



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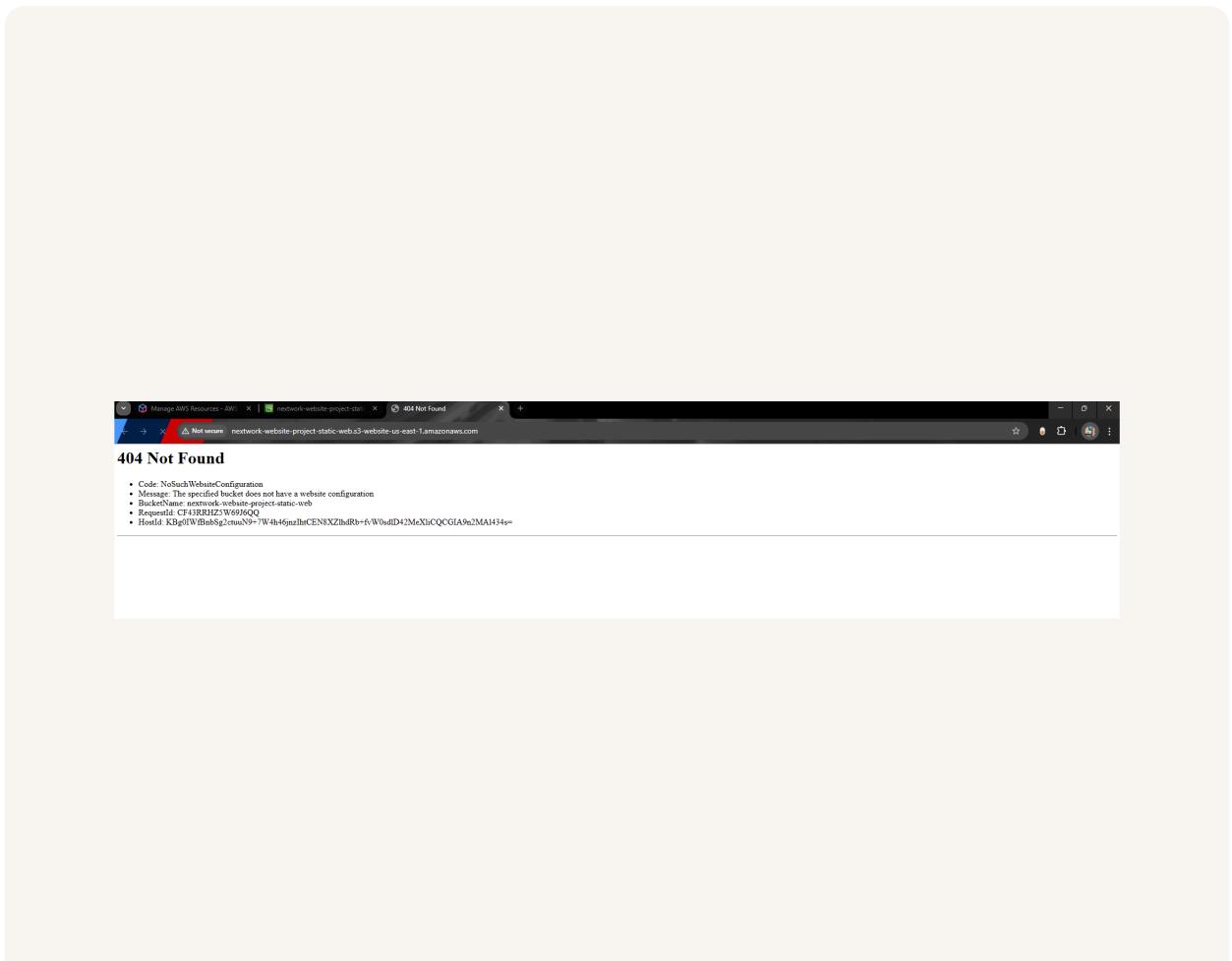
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# Bucket Endpoints

Once static website hosting is enabled, S3 produces a bucket endpoint URL, which is a publicly accessible URL where users can view the hosted website

When I first visited the bucket endpoint URL, I saw an error message stating that the requested resource could not be found or was inaccessible. The reason for this error was likely that the endpoint URL was incorrect, the bucket was not publicly acc





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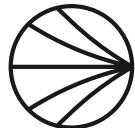
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# Success!

To resolve this connection error, I first checked the permissions for the S3 bucket and its objects to ensure they were set to be publicly accessible. I then confirmed that the website hosting settings in S3 were correctly configured, including ensuring the static website hosting was enabled.

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