

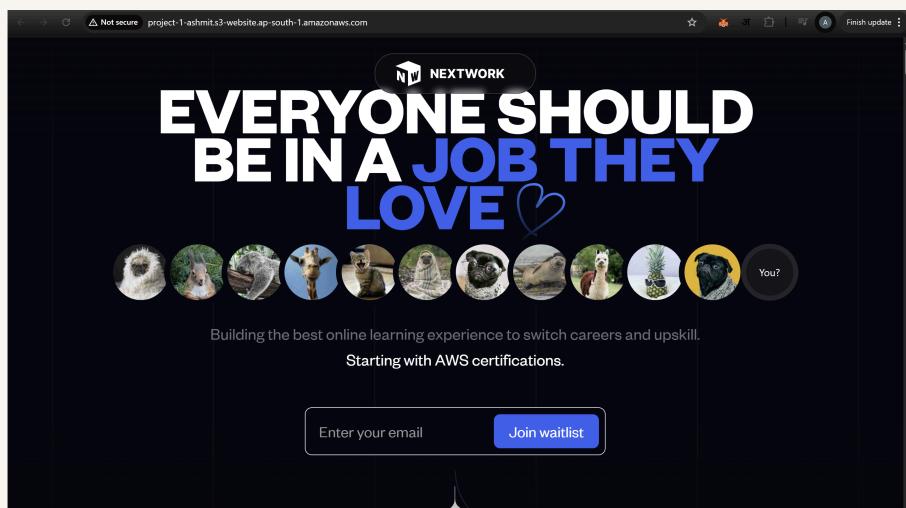


nextwork.org

Host a Website on Amazon S3

A

Ashmit Rajput



Introducing Today's Project!

In this project, I will demonstrate how to initialize a S3 bucket in AWS and store files in it, also how to use it to host static websites. I'm doing this project to learn AWS S3 service and its functionalities.

Tools and concepts

Services I used were S3 Bucket, Static Website Hosting, ACL,etc, Key concepts I learnt include how to configure an S3 Bucket & use it to host static websites and make the bucket objects visible publicly on a Bucket end-point URL i.e. my website URL.

Project reflection

This project took me approximately 45 minutes to complete as I was learning about new concepts and how to implement them and also updating this documentation as well. It was easy and fun, more projects ahead with more tools and other services.

How I Set Up an S3 Bucket

Creating an S3 bucket took me 5 minutes, it would be easier in the future after a little practice of different features of buckets and how to initialize them, there are various options like ACL's, Bucket Policies, Block Public Access that are useful.

The Region I picked for my S3 bucket was South Asia because I belong to india and it is the closest region to my location, so it makes retrieval fast and easier, which reduces latency and makes it more efficient to host a static website.

S3 bucket names are globally unique! This means that in the AWS database all the buckets available on all accounts globally have different and unique names so it is easier to identify the buckets to specific users that initialize them.

A

Ashmit Rajput

NextWork Student

nextwork.org

The screenshot shows the AWS S3 Buckets page. At the top, there's a success message: "Successfully created bucket 'project-1-ashmit'. To upload files and folders, or to configure additional bucket settings, choose View details." Below this, there are two tabs: "General purpose buckets" (selected) and "All AWS Regions". On the left, there's a search bar and a "Create bucket" button. The main area displays a table of buckets:

Name	AWS Region	Creation date
project-1-ashmit	Asia Pacific (Mumbai) ap-south-1	July 21, 2025, 23:58:59 (UTC+05:30)

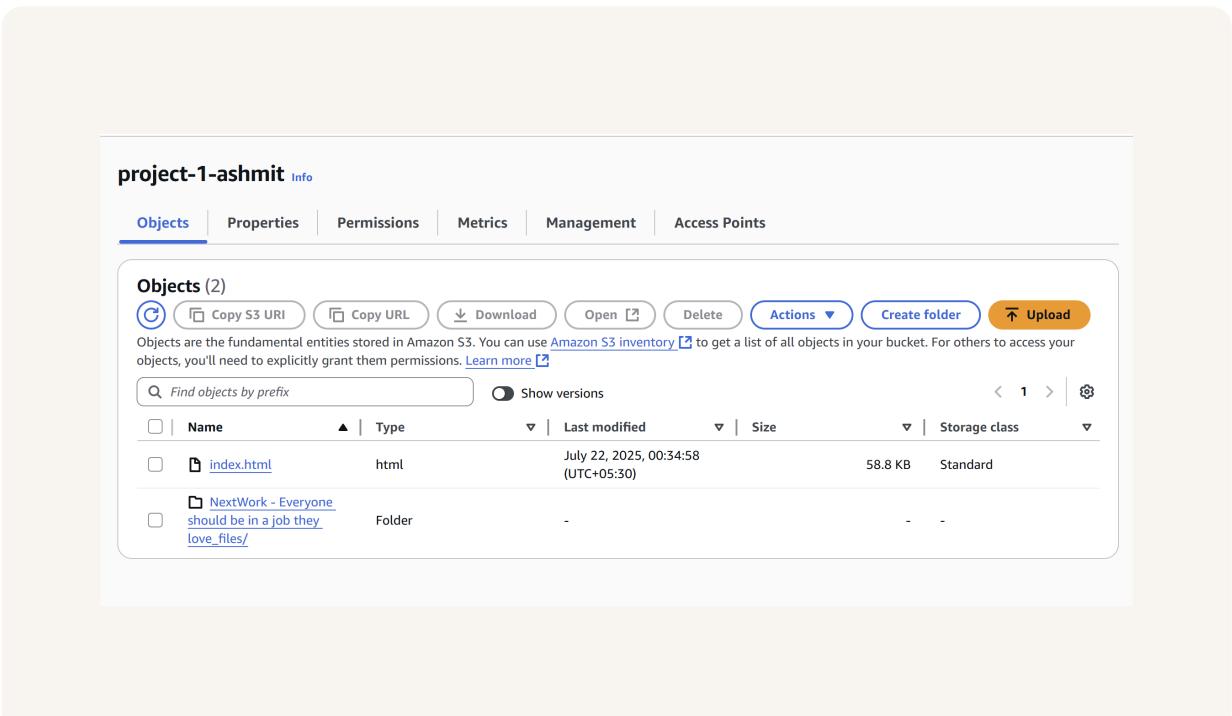
On the right, there are two informational boxes: "Account snapshot" (updated daily) and "External access summary - new" (updated daily).

Upload Website Files to S3

index.html and image assets

I uploaded two files to my S3 bucket - first was Index.html that defines the structure of the website like, the borders, spacing, colors,etc., and other file with all the images used in the website that are going to be arranged BY INDEX.HTML file.

Both files are necessary for this project as without index.html file we have no structure/layout for the website and it is just a bunch of images and text without any formatting, and the other file has all the images and logos that html will format.



project-1-ashmit [Info](#)

Objects Properties Permissions Metrics Management Access Points

Objects (2)

[Upload](#)

Objects are 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](#)

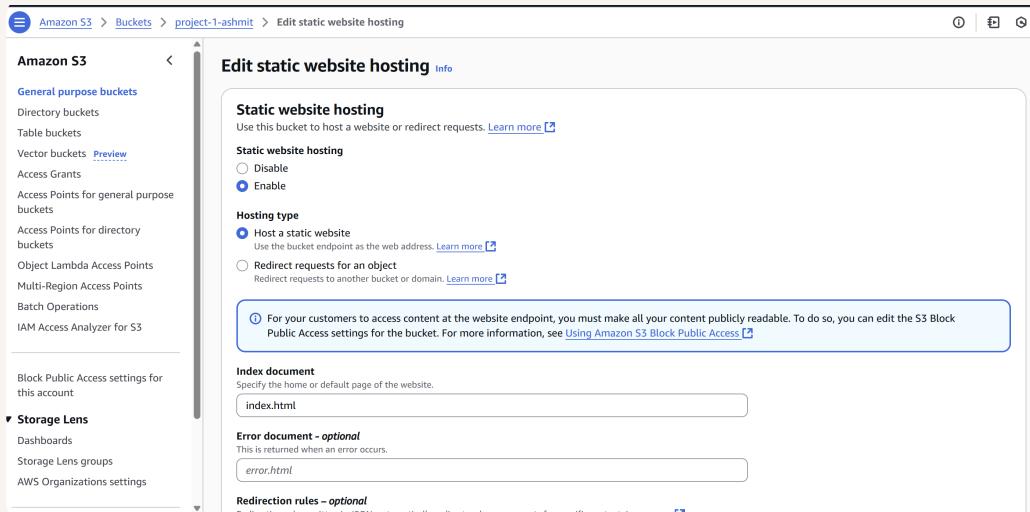
<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	index.html	html	July 22, 2025, 00:34:58 (UTC+05:30)	58.8 KB	Standard
<input type="checkbox"/>	NextWork - Everyone should be in a job they love_files/	Folder	-	-	-

Static Website Hosting on S3

Website hosting means, that even if we write the perfect HTML file in our device, it can only be seen by us on our local host, but by hosting it using S3 or other services, we make it publicly visible on internet on a specific link.

To enable website hosting with my S3 bucket, I went to the properties section of my general purpose - S3 Bucket, scrolled down to the option of Static Website Hosting and enabled it for the contents in my bucket, then declared index.html file & done.

An ACL is a set of rules that helps us maintain access to all the objects and buckets of our account to other accounts also, other method for this is bucket policies, which gives even more detailed permissions and uses JSON format.



The screenshot shows the 'Edit static website hosting' configuration page for an S3 bucket named 'project-1-ashmit'. The left sidebar lists various S3 features like General purpose buckets, Storage Lens, and IAM Access Analyzer. The main panel is titled 'Edit static website hosting' and contains sections for 'Static website hosting' (enabled), 'Hosting type' (Host a static website selected), 'Index document' (set to 'index.html'), 'Error document - optional' (set to 'error.html'), and 'Redirection rules - optional' (disabled). A note at the bottom of the panel 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.'

Bucket Endpoints

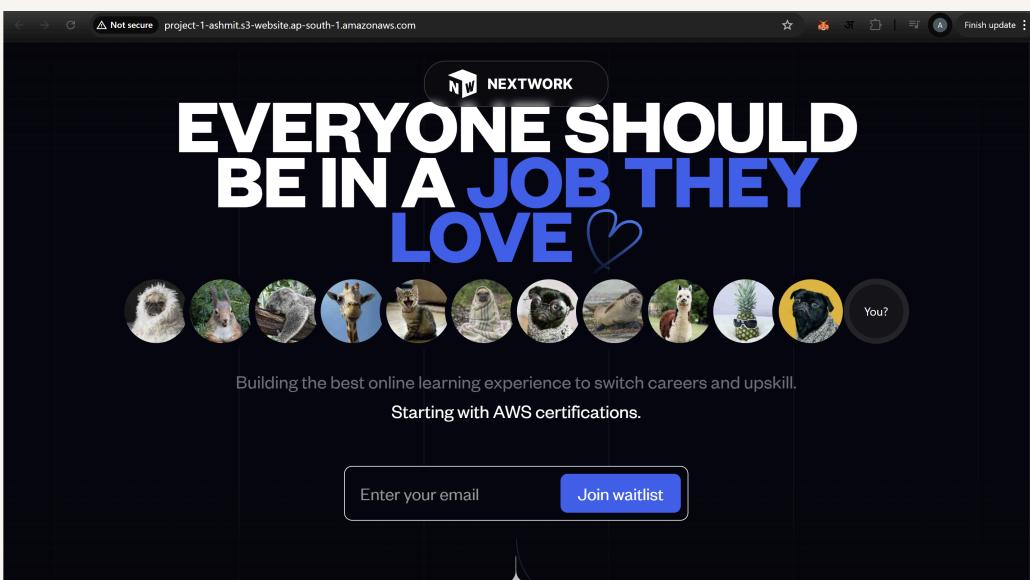
Once static website hosting is enabled, S3 itself produces a bucket endpoint URL after our configurations are applied and saved, where we can visit our static website on the internet and make it accessible to everybody easily.

When I first visited the bucket endpoint URL, there was an error 403, which says access denied. The reason for this error was that we made our bucket visible publicly but its content is still covered up, as by default our content is still private.



Success!

To resolve this 403 error, I went to my S3 Bucket and opened the objects, selected objects and then clicked on Actions and selected "make public using ACL", after which, just clicking a button made the objects publicly visible & website ready!





nextwork.org

The place to learn & showcase your skills

Check out nextwork.org for more projects

