



AWS Project Documentation

Simple Static Website Hositng using AWS S3



Amazon
S3



@sAnandha

S3(SIMPLE STORAGE SERVICE)



AWS S3

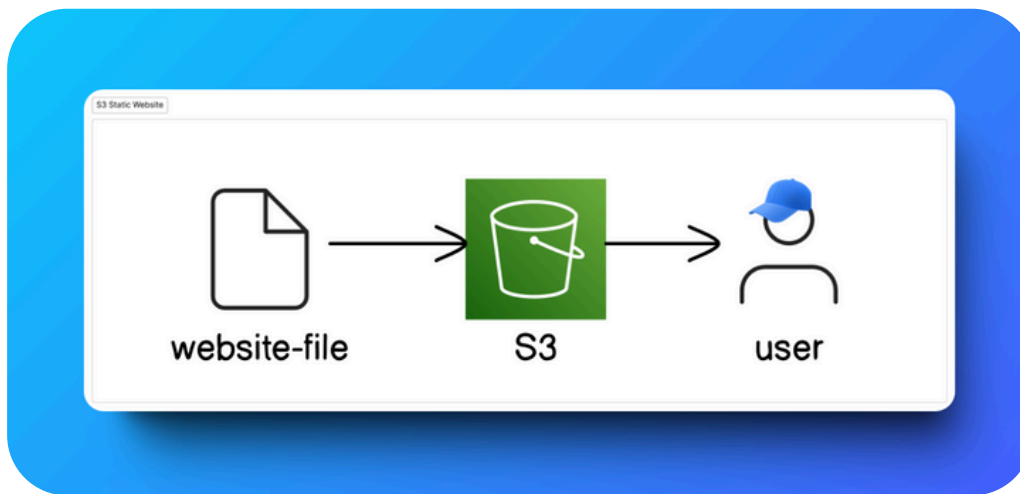
1. **Object Storage:** S3 is an object storage service designed for storing and retrieving any amount of data.
2. **Scalability:** It scales automatically to handle data growth.
3. **Data Durability:** Provides 99.999999999% (11 nines) durability.
4. **Cost-effective:** You pay only for the storage and transfer you use.
5. **Security:** Offers encryption and access control options for secure data storage.

Static Website Hosting

1. **Bucket as Host:** You can configure an S3 bucket to host static websites (HTML, CSS, JS).
2. **Static Files Only:** Supports only static content—no server-side processing like PHP or Python.
3. **Custom Domain Support:** Combine with Route 53 and CloudFront for custom domain names and global distribution.
4. **Configuration:** Requires enabling the bucket as a public host and specifying index and error document files.
5. **High Availability:** Leveraging S3 ensures high availability and reliability for hosting.

Notes

Architecture Diagram :



Architecture of Static Website Hosting on AWS S3

1. Amazon S3 Bucket:

- Acts as the core storage layer for static assets like HTML, CSS, JavaScript, and media files.
- The bucket is configured for public access or restricted access via permissions (if CloudFront is used).
- It is set up to serve files, with specific settings for an index document and an optional error document.

2. Amazon Route 53 (Optional for Custom Domains):

- Helps map a custom domain name (e.g., www.example.com) to the S3 bucket or CloudFront distribution.
- It simplifies DNS management and supports both A and CNAME records.

3. AWS Certificate Manager (ACM) (Optional for HTTPS):

- Provides SSL/TLS certificates for encrypting traffic between the client and the server.
- Used with CloudFront to enable secure HTTPS connections.

4. Amazon CloudFront (Optional for Caching and Performance):

- Distributes the static content globally using edge locations, reducing latency.
- Provides additional features like caching, geo-restrictions, and HTTPS.

5. IAM Roles and Policies:

- Ensure that access to the bucket is securely managed, using specific policies for read/write access.

NOTE : If You like to host the website using your doamin address and contents using the optional services refer my Github s3 hosting



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Steps to Set Up Static Website Hosting on AWS S3

1. Create an S3 Bucket:

- Open the AWS Management Console and navigate to S3.
- Create a bucket with a unique name matching your domain if using a custom domain (e.g., example.com).

2. Upload Website Files:

- Upload all your static files (HTML, CSS, JS, images) to the bucket.
- Organize files into folders if necessary for better management.

3. Enable Static Website Hosting:

- Go to the bucket properties.
- Under "Static website hosting," enable the option and specify the index document (e.g., index.html) and error document (e.g., error.html).

4. Set Permissions:

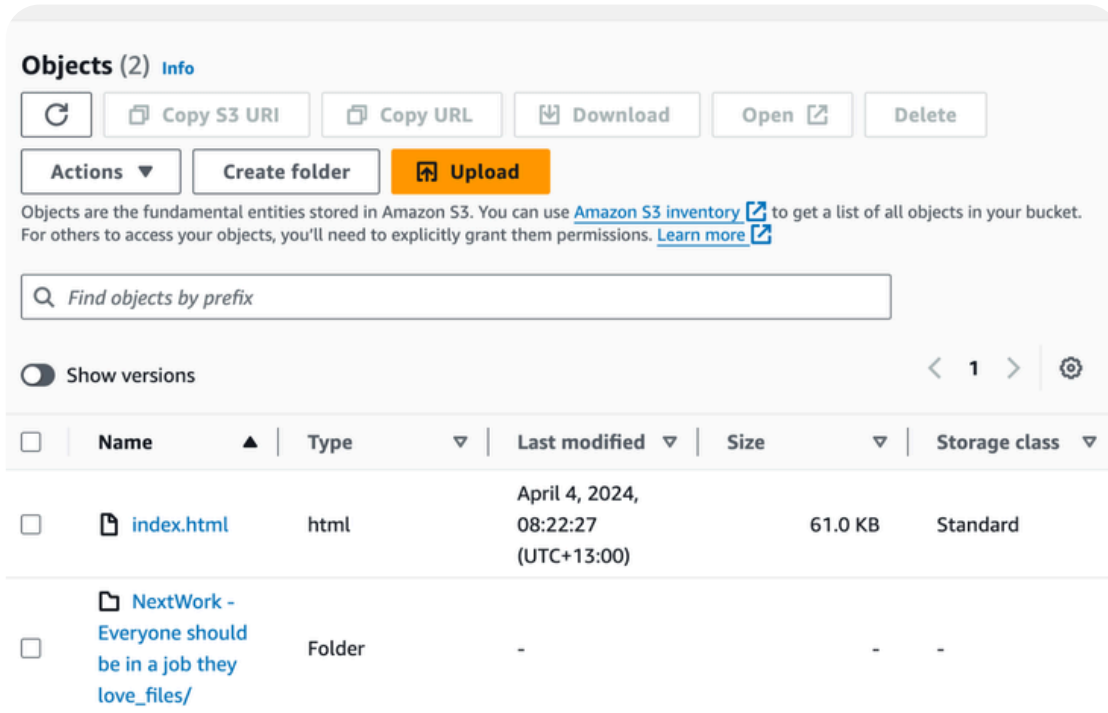
- Update the bucket policy to allow public read access for website files. Example policy:

5. Test the Website:

- Access the website using the S3 bucket's public URL (e.g., `http://your-bucket-name.s3-website-region.amazonaws.com`).



Sample Output:



Objects (2) [Info](#)

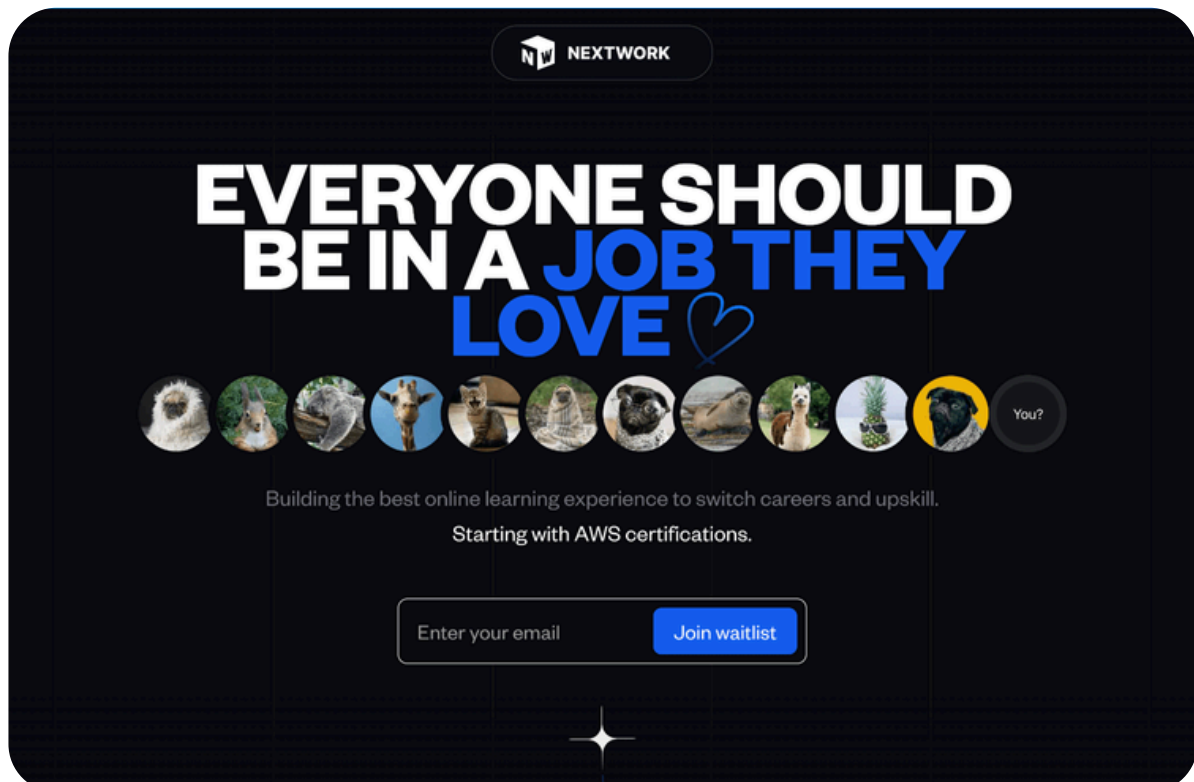
[Refresh](#) [Copy S3 URI](#) [Copy URL](#) [Download](#) [Open](#) [Delete](#)

[Actions](#) [Create folder](#) [Upload](#)

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](#)

☐ Show versions < 1 > [Settings](#)

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	index.html	html	April 4, 2024, 08:22:27 (UTC+13:00)	61.0 KB	Standard
<input type="checkbox"/>	NextWork - Everyone should be in a job they love_files/	Folder	-	-	-



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For Detailed Description:

<https://learn.nextwork.org/projects/aws-host-a-website-on-s3>