



# Static Website on aws

**“Deploying a Static Website using AWS”**

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# 1. INTRODUCTION

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A website is considered static when all the web pages and scripts are rendered on the client side rather than the server side. In contrast, a dynamic website relies on server-side processing, using server-side scripts such as PHP, JSP, or ASP.NET.

Nowadays, many websites are becoming static, meaning they don't run any server-side code and consist solely of HTML, CSS, and JavaScript. Since there is no server-side code to execute, these websites don't need to be hosted on a traditional server.



To set up a static website, you can start by creating an Amazon S3 bucket. Enable the Amazon S3 Website hosting feature and configure the access permissions for the bucket. Once you have uploaded your files and set up the website, Amazon S3 will handle serving your content to visitors.

## 2. ADVANTAGES OF HOSTING WEBSITE ON S3

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### **Performance:**

The website will be highly performant and scalable at a fraction of the cost of a traditional Web server.

### **Scalability:**

Amazon S3 is inherently scalable. For popular websites, the Amazon S3 architecture will scale seamlessly to serve thousands of HTTP requests per second without any changes to the architecture.



### **Availability:**

In addition, by hosting with Amazon S3, the website is inherently highly available.

### 3. PREREQUISITIES

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An AWS Account



## 4. ARCHITECTURE OVERVIEW

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### 4.1

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#### AMAZON S3

Amazon S3 (Simple Storage Service) is a scalable and secure object storage service by Amazon Web Services (AWS). It offers:

**Scalability:** Virtually unlimited data storage.

**Durability and Availability:** 99.999999999% durability and 99.99% availability.

**Security:** Encryption, fine-grained access controls, and IAM integration.

**Cost-Effectiveness:** Pay-as-you-go pricing with various storage classes.

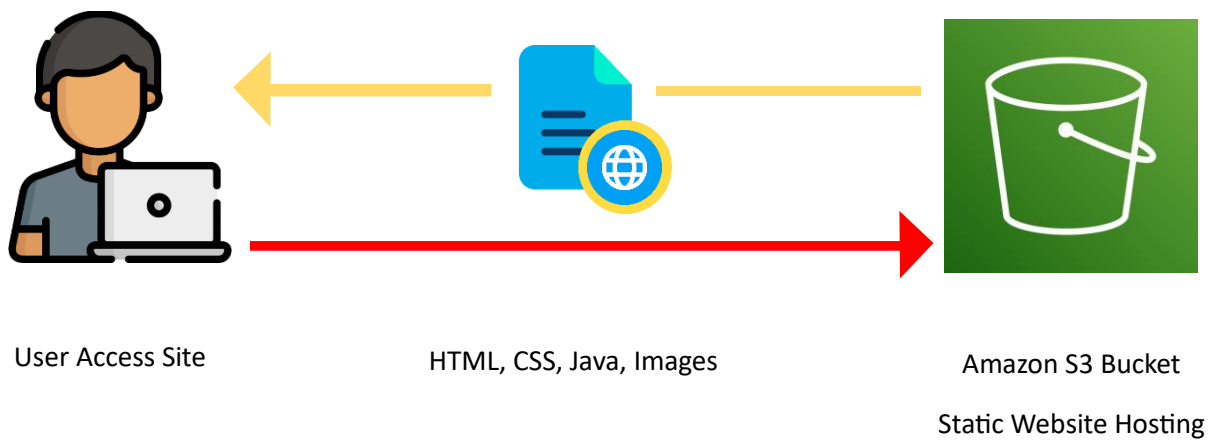
**Flexibility:** Stores any type of data and integrates with other AWS services.

**Performance:** Low latency and high throughput.

**Ease of Use:** Simple web interface, APIs, and SDKs.

S3 is ideal for website hosting, backups, data archiving, big data analytics, and more.

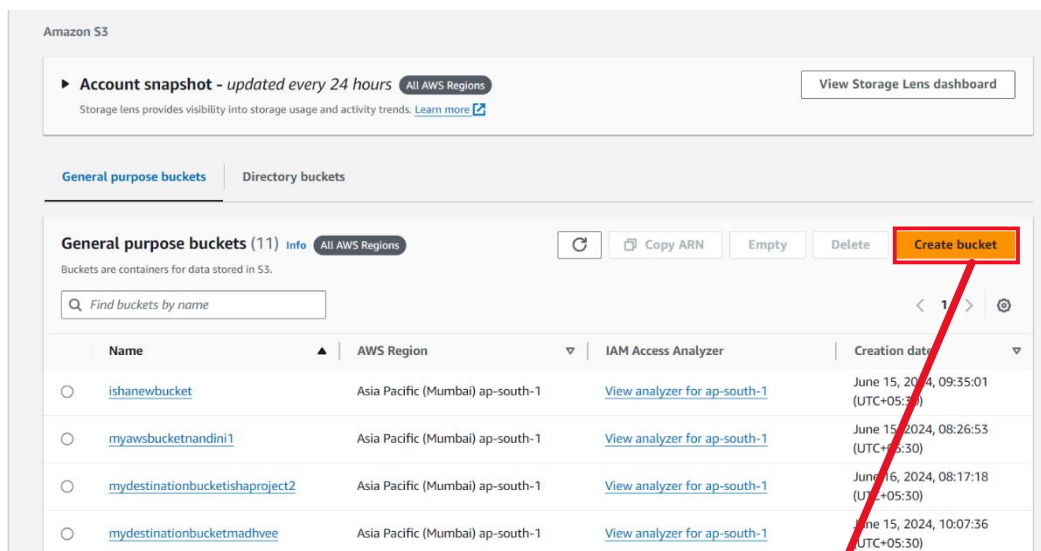
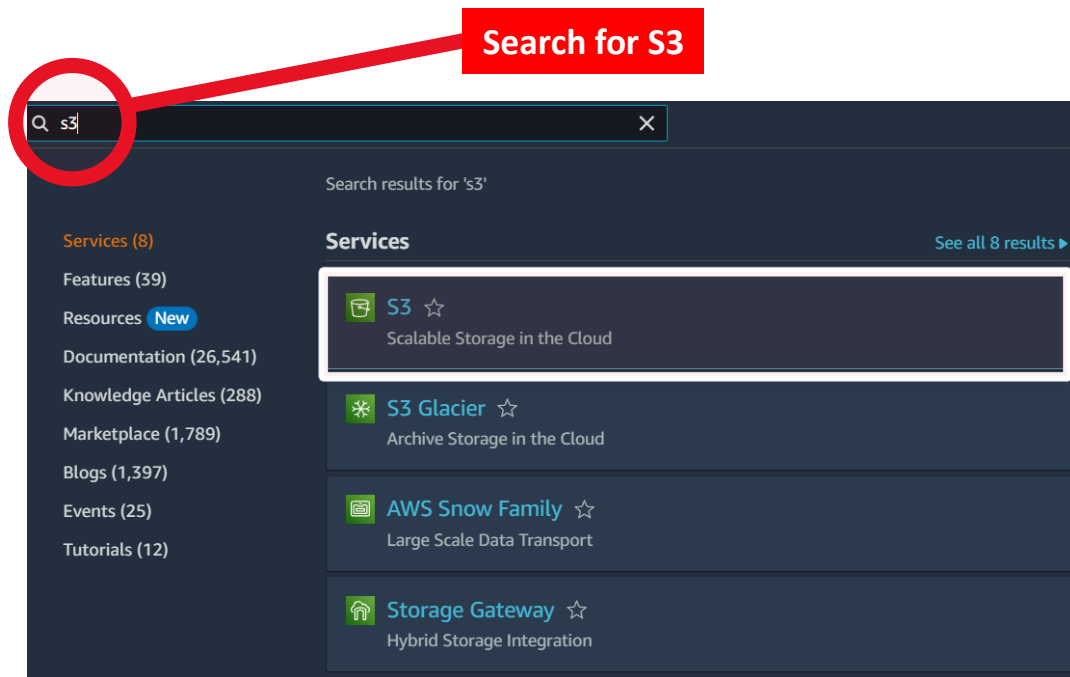
### Static Website Hosting on Amazon S3



## 5. STEPS FOR DEPLOYMENT

### STEP 1 :

#### Create an S3 Bucket



Create bucket

Click here to create a bucket



Amazon S3 > Buckets > Create bucket

## Create bucket [Info](#)

Buckets are containers for data stored in S3.

### General configuration

AWS Region  
Asia Pacific (Mumbai) ap-south-1

Bucket name [Info](#)

Bucket name must be unique within the global namespace and follow the bucket naming rules. [See rules for bucket naming](#)

Copy settings from existing bucket - *optional*  
Only the bucket settings in the following configuration are copied.

Format: s3://bucket/prefix

Provide a globally unique name for bucket

### Object Ownership [Info](#)

Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

☐ ACLs disabled (recommended)  
All objects in this bucket are owned by this account. Access to this bucket and its objects is specified using only policies.

☒ ACLs enabled  
Objects in this bucket can be owned by other AWS accounts. Access to this bucket and its objects can be specified using ACLs.

**⚠ We recommend disabling ACLs, unless you need to control access for each object individually or to have the object writer own the data they upload. Using a bucket policy instead of ACLs to share data with users outside of your account simplifies permissions management and auditing.**

Object Ownership

☒ Bucket owner preferred  
If new objects written to this bucket specify the bucket-owner-full-control canned ACL, they are

Click on ACLs enabled

**UNCHECK "Block all public access"**

☐ **Block all public access**

Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

- ☐ **Block public access to buckets and objects granted through *new* access control lists (ACLs)**  
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
- ☐ **Block public access to buckets and objects granted through *any* access control lists (ACLs)**  
S3 will ignore all ACLs that grant public access to buckets and objects.
- ☐ **Block public access to buckets and objects granted through *new* public bucket or access point policies**  
S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.
- ☐ **Block public and cross-account access to buckets and objects through *any* public bucket or access point policies**  
S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.



**Turning off block all public access might result in this bucket and the objects within becoming public**  
AWS recommends that you turn on block all public access, unless public access is required for specific and verified use cases such as static website hosting.

- ☒ I acknowledge that the current settings might result in this bucket and the objects within becoming public.

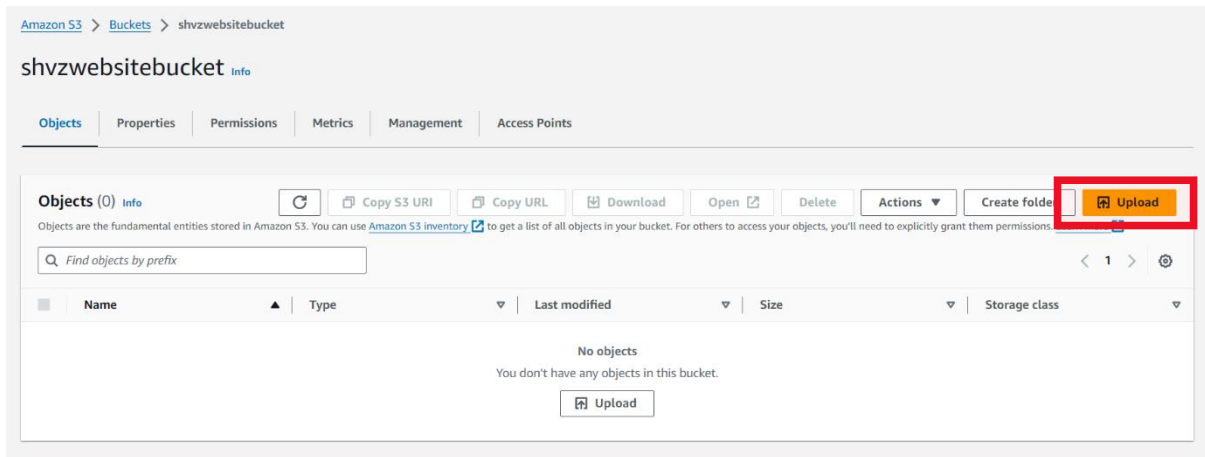
Click on "**I Acknowledge current settings**" and Leave the Remaining settings on **DEFAULT**

Click on  
create bucket

**Create bucket**

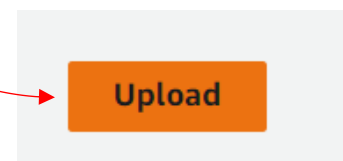
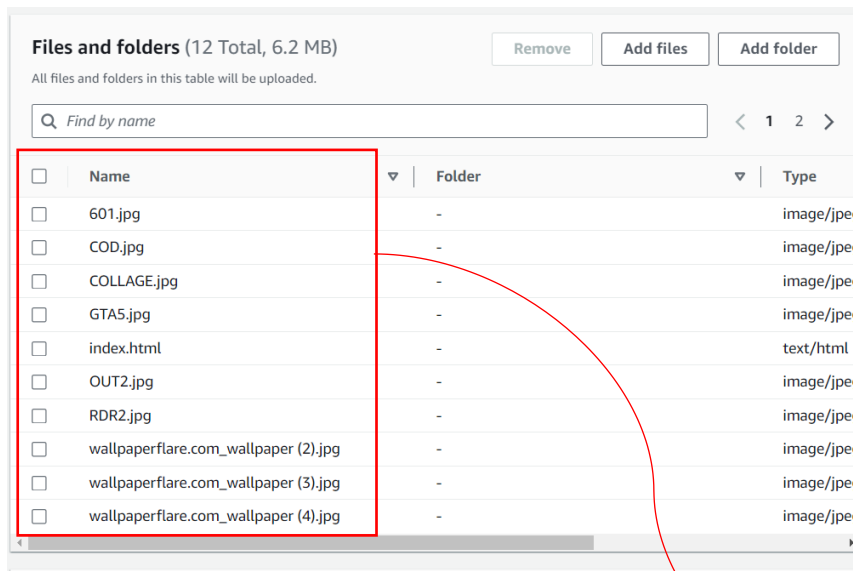
## STEP 2 :

### Upload Content of your Website in the Bucket



#### Example:

- Index.html
- Images
- css



### STEP 3 :

## Make Objects Public using ACL

Select all the Object Present in Bucket and Make Them Public using ACL

Objects (12) Info

Find objects by prefix

	Name	Type	Last modified	Size
<input checked="" type="checkbox"/>	index.html	html	June 17, 2024, 16:00:36 (UTC+05:30)	
<input checked="" type="checkbox"/>	OUT2.jpg	jpg	June 17, 2024, 16:00:37 (UTC+05:30)	
<input checked="" type="checkbox"/>	RDR2.jpg	jpg	June 17, 2024, 16:00:37 (UTC+05:30)	
<input checked="" type="checkbox"/>	wallpaperflare.com_wallpaper (2).jpg	jpg	June 17, 2024, 16:00:38 (UTC+05:30)	571.4 KB
<input checked="" type="checkbox"/>	wallpaperflare.com_wallpaper (3).jpg	jpg	June 17, 2024, 16:00:39 (UTC+05:30)	2.0 MB
<input checked="" type="checkbox"/>	wallpaperflare.com_wallpaper (4).jpg	jpg	June 17, 2024, 16:00:41 (UTC+05:30)	597.0 KB
<input checked="" type="checkbox"/>	wallpaperflare.com_wallpaper (5).jpg	jpg	June 17, 2024, 16:00:42 (UTC+05:30)	429.3 KB
<input checked="" type="checkbox"/>	wallpaperflare.com_wallpaper (6).jpg	jpg	June 17, 2024, 16:00:43 (UTC+05:30)	

Actions

- Calculate total size
- Copy
- Move
- Initiate restore
- Query with S3 Select
- Edit actions
  - Rename object
  - Edit storage class
  - Edit server-side encryption
  - Edit metadata
  - Edit tags
  - Make public using ACL**

✔ Successfully edited public access  
View details below.

## STEP 4 :

### Enable Website Hosting

In order to serve assets via URL, you need to enable Website Hosting

Go to **Properties** and enable "**Static Website Hosting**" option

Amazon S3 > Buckets > shvzwebsitebucket > Edit static website hosting

### 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](#)

**Index document**  
Specify the home or default page of the website.

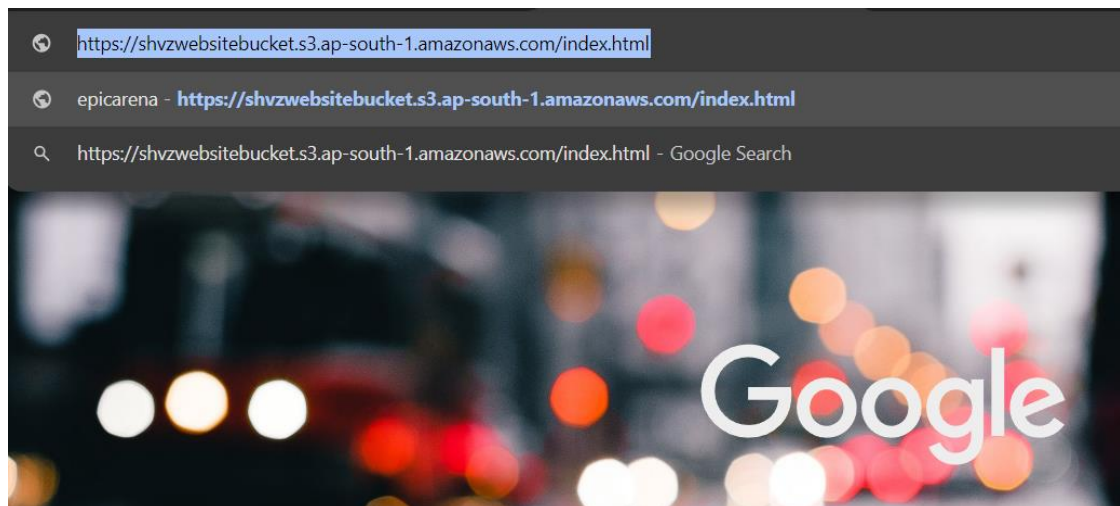
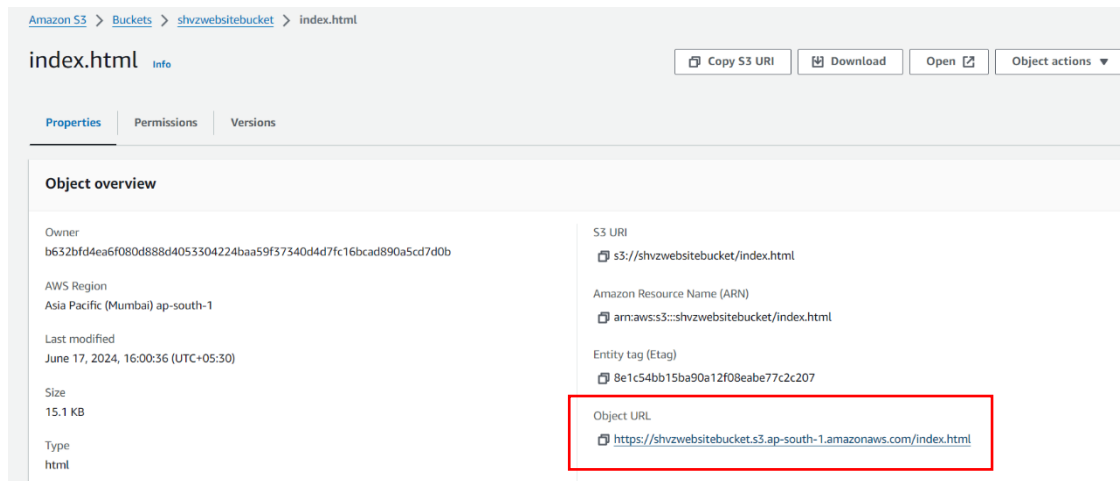
index.html

**Save changes**

## STEP 5 :

### Access Your Website

- Go to your bucket and click on **index.html**
- Copy the **Object URL**
- Access the site in Browser using the Object URL



- Hit the URL and you'll be redirected to your **Website**

127.0.0.1:5500/index.html











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## 6. CONCLUSION

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We successfully created a static website using Amazon S3. By leveraging S3's robust features such as high scalability, security, and cost-effectiveness, we were able to efficiently host a static site without the need for a traditional server. The process involved setting up an S3 bucket, configuring it for website hosting, and managing access permissions. This project demonstrated the practical advantages of using Amazon S3 for static website hosting, highlighting its simplicity, reliability, and powerful integration capabilities within the AWS ecosystem.





## 7. REFERENCES

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- [What is Amazon S3](#)
- [Difference between Static and Dynamic website](#)
- [Hosting a Static Website on Amazon S3](#)

