

How to host a static website with AWS S3

Introduction to AWS S3

Amazon S3 is one of the main building blocks of AWS, advertised as infinitely scaling storage. Many websites and AWS services rely on it heavily. In this section, we'll take a step-by-step approach to learn its main features.

Use Cases for Amazon S3:

- **Backup and Storage:** For files, disks, etc.
- **Disaster Recovery:** Data can be moved to another region if one goes down.
- **Archival:** Store files cheaply and retrieve them later.
- **Hybrid Cloud Storage:** Integrate with on-premises storage.
- **Hosting:** Applications, media (videos, images).
- **Data Lake:** Store and analyze big data.
- **Software Updates:** Deliver updates efficiently.
- **Static Websites:** Hosted directly from S3.

Key Concepts:

- **Buckets:** Top-level directories for storing objects. Names must be globally unique across AWS accounts and regions.
- **Objects:** Files stored in buckets, identified by a unique key (full path within the bucket).
- **Object Keys:** Composed of a prefix and object name; similar to file paths.
- **Object Size:** Up to 5 terabytes. Larger files require multi-part uploads.
- **Metadata:** Key-value pairs describing objects.

- **Tags:** Unicode key-value pairs (up to 10) for security and lifecycle management.
- **Versioning:** Optional feature to keep multiple versions of an object.

Bucket Naming:

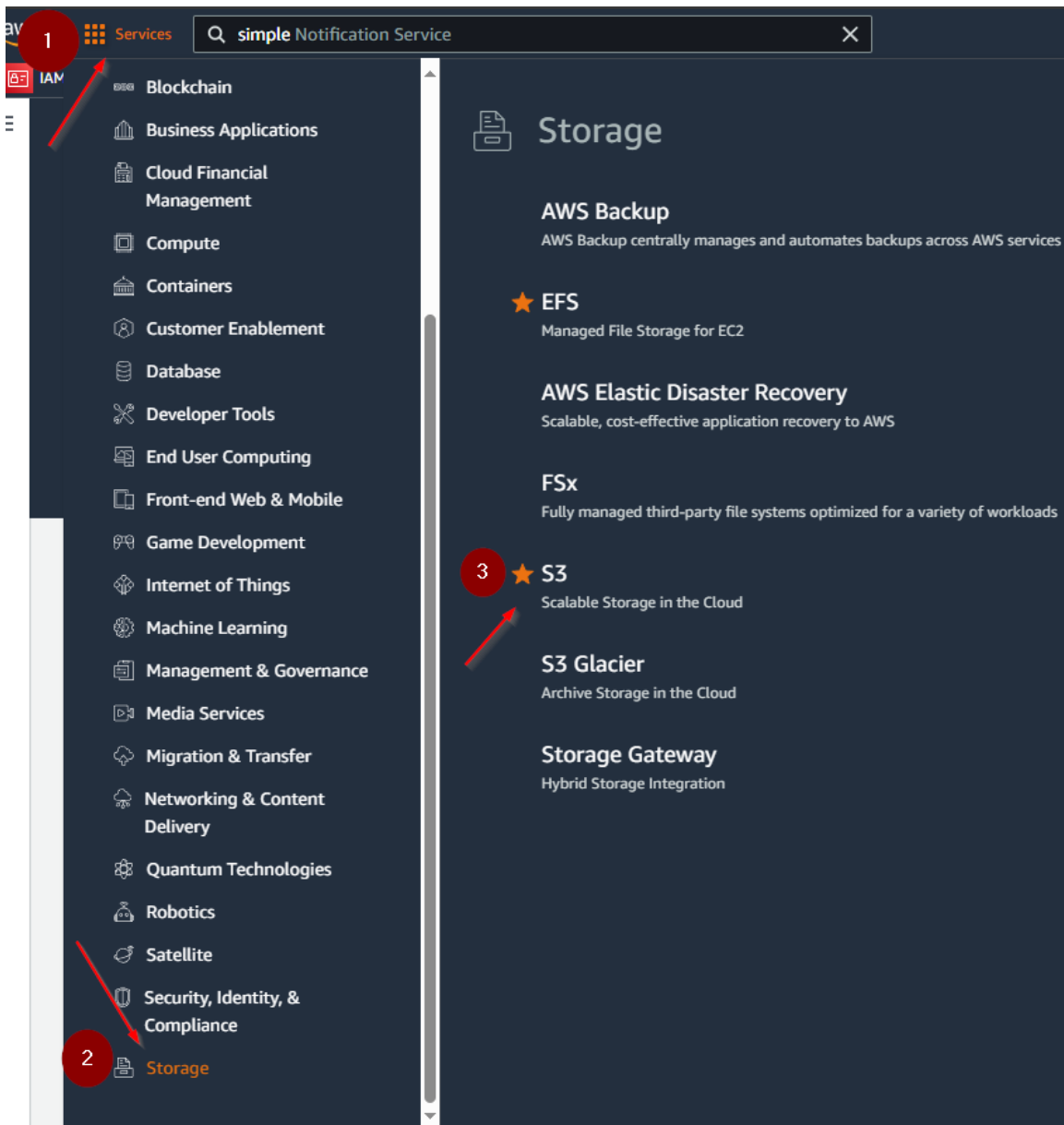
- Must be lowercase, 3-63 characters long.
- Must start with a lowercase letter or number.
- Can contain letters, numbers, and hyphens.
- Cannot be an IP address or contain underscores.

Directories in S3:

- S3 doesn't have directories; everything is an object with a key.
- Console UI creates a directory-like structure based on keys.

Step 1: Create a S3 bucket

Go to **AWS console**, and on the **Storage**, section select **S3**



Click **Create Bucket**

Create a bucket

Every object in S3 is stored in a bucket. To upload files and folders to S3, you'll need to create a bucket where the objects will be stored.

Create bucket

Give it a unique name, accept the defaults and click *create*.

AWS Region
Europe (Ireland) eu-west-1

Bucket name [Info](#)
my-s3-staticweb-ardit

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.

Choose bucket

Format: s3://bucket/prefix

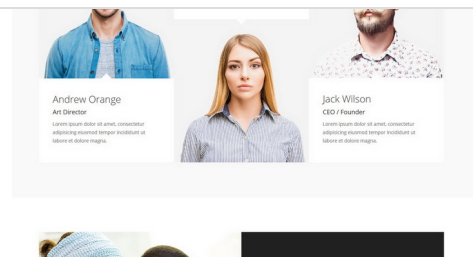
Now we are gonna upload a static website. Go to <https://www.tooplate.com/> and download any free theme as you like

Im going to choose this template:

Soft Landing Page HTML Template by Tooplate

This soft landing HTML page is clean and minimal design. It has simple content tabs, carousel, pricing tables, and contact form.

<https://www.tooplate.com/view/2106-soft-landing>



Click *download* and then extract the files

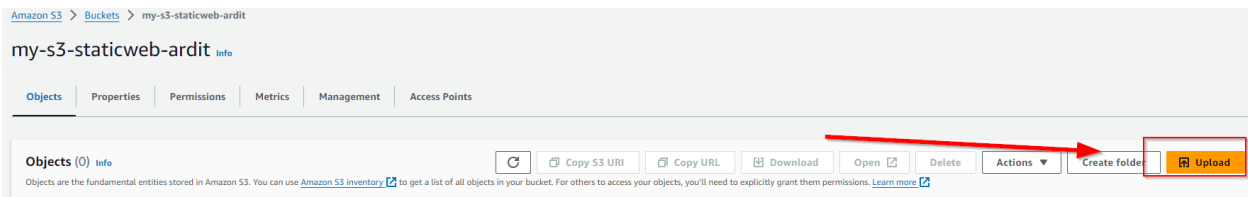
Soft Landing Page Template

This soft landing HTML page is clean and minimal design. It has simple content tabs, carousel, pricing tables, and contact form. You are allowed to use this template for your commercial project. You can [read more](#) about Soft Landing Page template free usage rights.

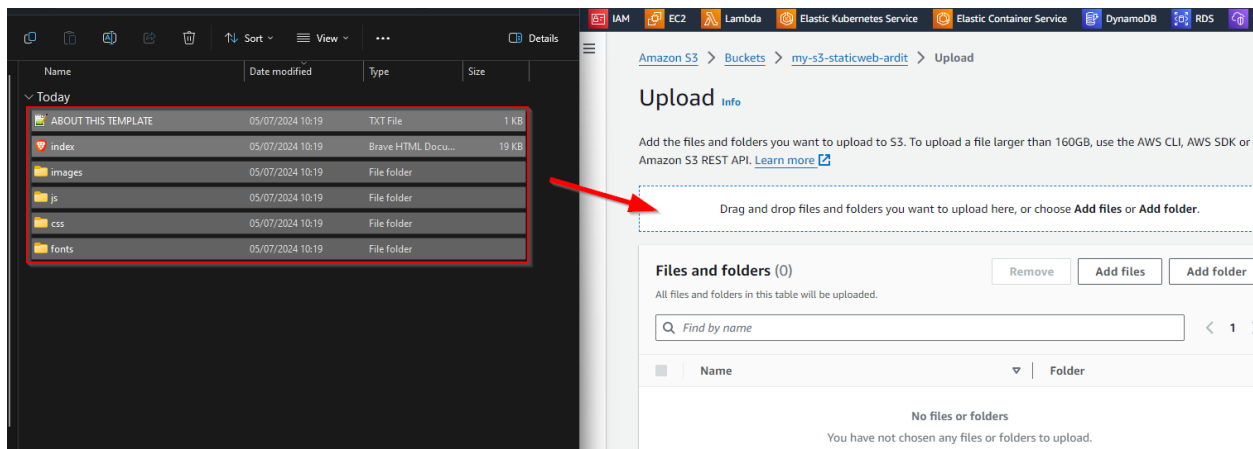
Created: 03 September 2018 Views: 107,852 Downloads: 19,180

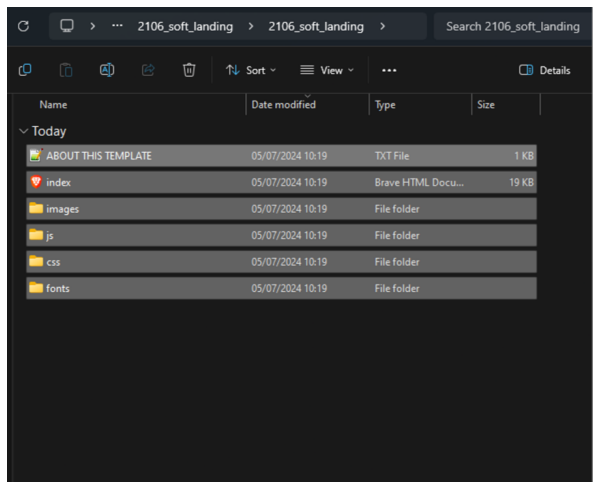


After extracting go to your bucket and click *upload*



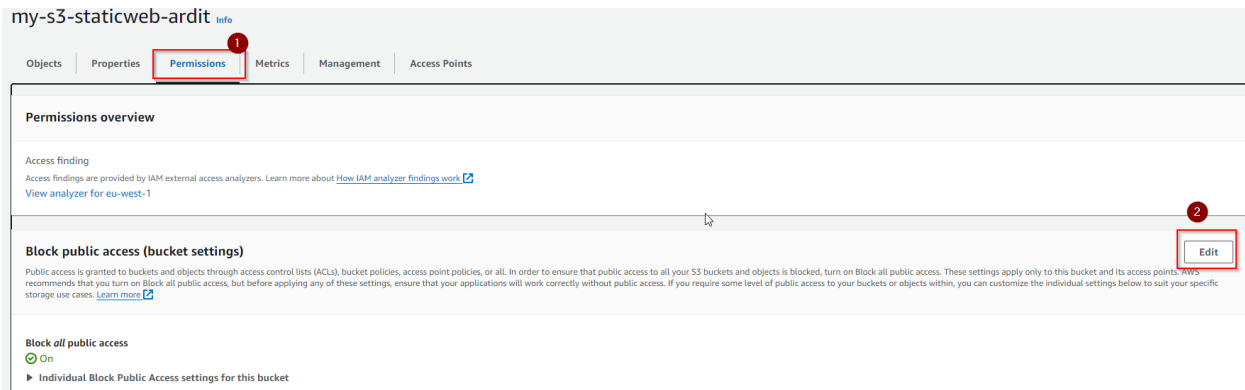
Now drag and drop you files from the folder you extracted them to the AWS S3 bucket:





Upload the files and folders you want to upload here.

After that, in the bottom of the page click *Upload* and wait the files to be uploaded. Now go to the permissions tab and **Block public access (bucket settings)** click **edit**



Disable: **Block all public access**, click Save changes and type *confirm* on the pop-up window.

Next click edit on the **Object Ownership > Edit**

Click ACLs enabled, confirm and save changes.

Go to the bucket and select all files and click **Make public using ACL**

my-s3-staticweb-ardit [Info](#)

[Objects](#) | [Properties](#) | [Permissions](#) | [Metrics](#) | [Management](#) | [Access Points](#)

Objects (6) [Info](#)

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](#)

Find objects by prefix

<input checked="" type="checkbox"/>	Name	Type	Last modified	Size
<input checked="" type="checkbox"/>	ABOUT THIS TEMPLATE.txt	txt	July 5, 2024, 10:56:45 (UTC+02:00)	45
<input checked="" type="checkbox"/>	css/	Folder	-	
<input checked="" type="checkbox"/>	fonts/	Folder	-	
<input checked="" type="checkbox"/>	images/	Folder	-	
<input checked="" type="checkbox"/>	index.html	html	July 5, 2024, 10:56:45 (UTC+02:00)	18
<input checked="" type="checkbox"/>	js/	Folder	-	

Actions [▲](#) [Create folder](#)

Download as

Share with a presigned URL

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](#)

Go to **Properties** > **Static website hosting** > Edit > Enable

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](#)

i For your customers to access content at the website endpoint, you must make all your content readable. To do so, you can edit the S3 Block Public Access settings for the bucket. For more, see [Using Amazon S3 Block Public Access](#)

Index document

Specify the home or default page of the website.

index.html

Error document - optional

This is returned when an error occurs.

error.html

Redirection rules – optional

Redirection rules, written in JSON, automatically redirect webpage requests for specific content. [Learn more](#)

Note that the name of *index.html* is in your S3 bucket from when we uploaded.

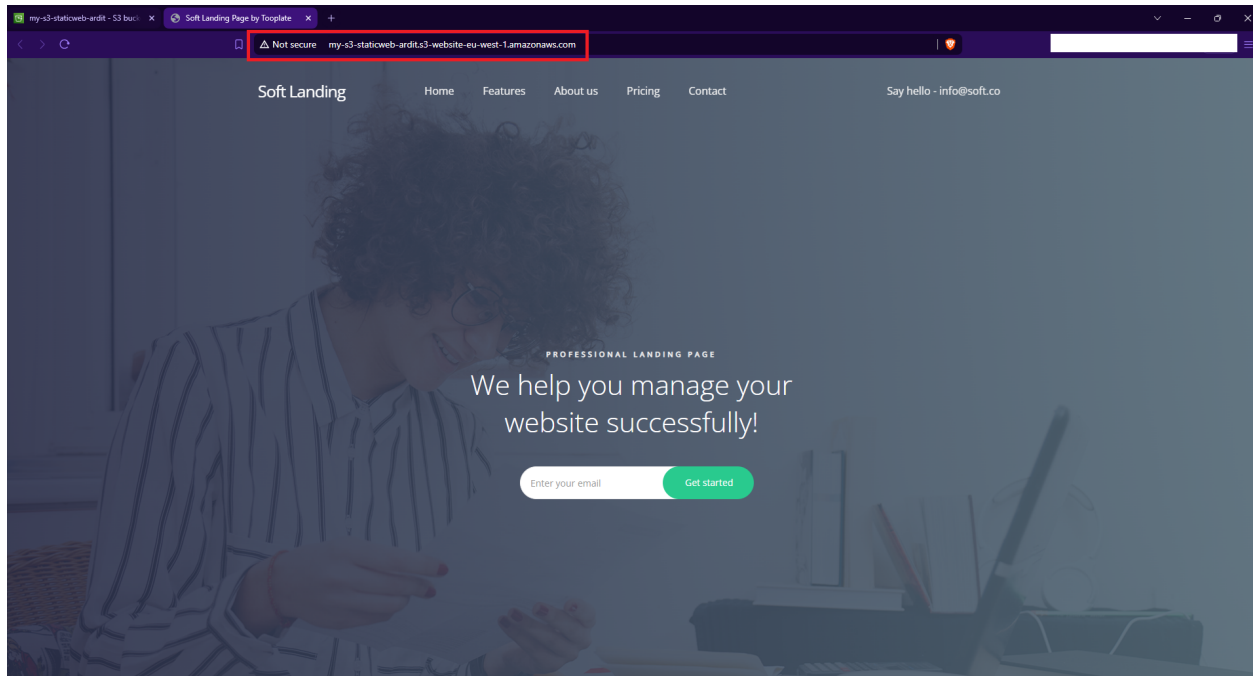
After finishing your **Static website hosting** should look like this (except the URL)

Now click on the link to view your website.

Bucket website endpoint

When you configure your bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. [Learn more](#)

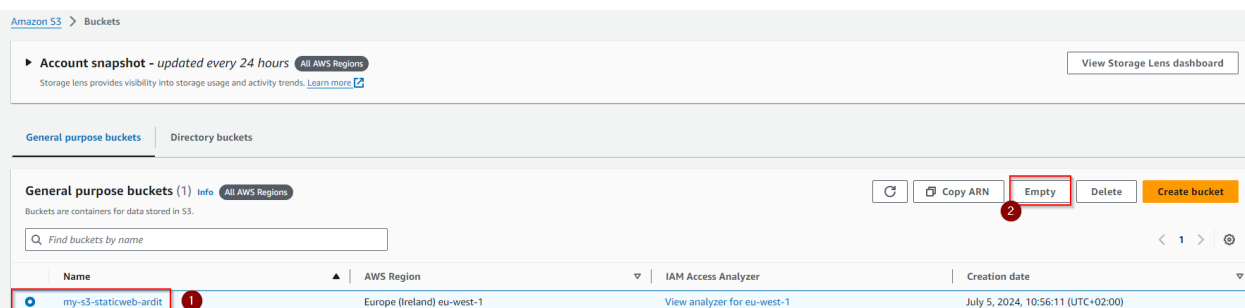
<http://my-s3-staticweb-ardit.s3-website-eu-west-1.amazonaws.com>



This is how you host a static website on S3.

Note: Dont forget to delete everything.

Select your bucket and click *empty* and type *permanently delete* in the box and click **Empty**



Empty bucket [Info](#)



- Emptying the bucket deletes all objects in the bucket and cannot be undone.
- Objects added to the bucket while the empty bucket action is in progress might be deleted.
- To prevent new objects from being added to this bucket while the empty bucket action is in progress, you might need to update your bucket policy to stop objects from being added to the bucket.

[Learn more](#)



If your bucket contains a large number of objects, creating a lifecycle rule to delete all objects in the bucket might be a more efficient way of emptying your bucket. [Learn more](#)

[Go to lifecycle rule configuration](#)

Permanently delete all objects in bucket "my-s3-staticweb-ardit"?

To confirm deletion, type *permanently delete* in the text input field.

permanently delete

Cancel

Empty

Than **Delete** the bucket

General purpose buckets | Directory buckets

General purpose buckets (1) [Info](#) [All AWS Regions](#)

Buckets are containers for data stored in S3.

[Copy ARN](#) [Empty](#) [Delete](#) [Create bucket](#)

Name	AWS Region	IAM Access Analyzer	Creation date
my-s3-staticweb-ardit	Europe (Ireland) eu-west-1	View analyzer for eu-west-1	July 5, 2024, 10:56:11 (UTC+02:00)