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:

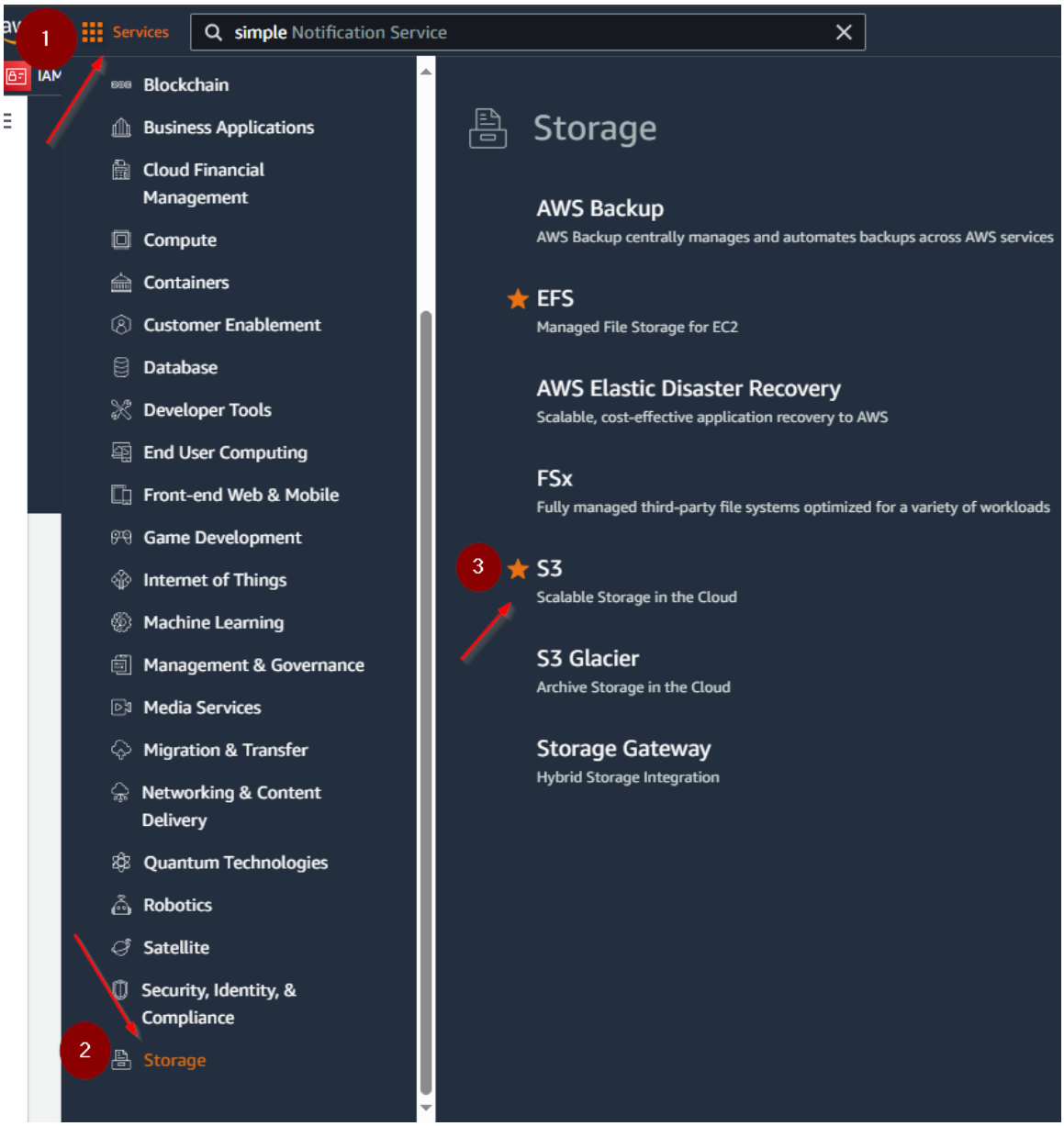
- Must be lowercase, 3-63 characters long.
- Must start with a lowercase letter or number.
- Can contain letters, numbers, and hyphens.
- Cannot be an IP address or contain underscores.

Directories in S3:

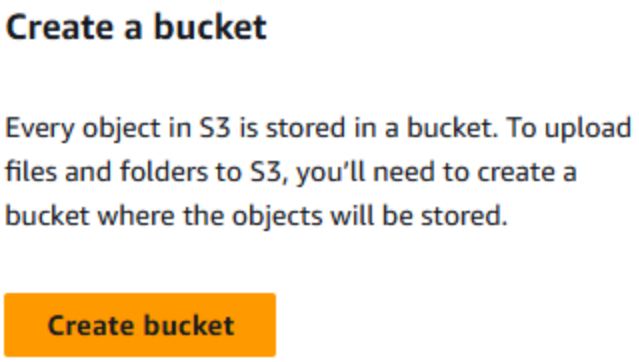
- S3 doesn't have directories; everything is an object with a key.
- Console UI creates a directory-like structure based on keys.

Step 1: Create a S3 bucket

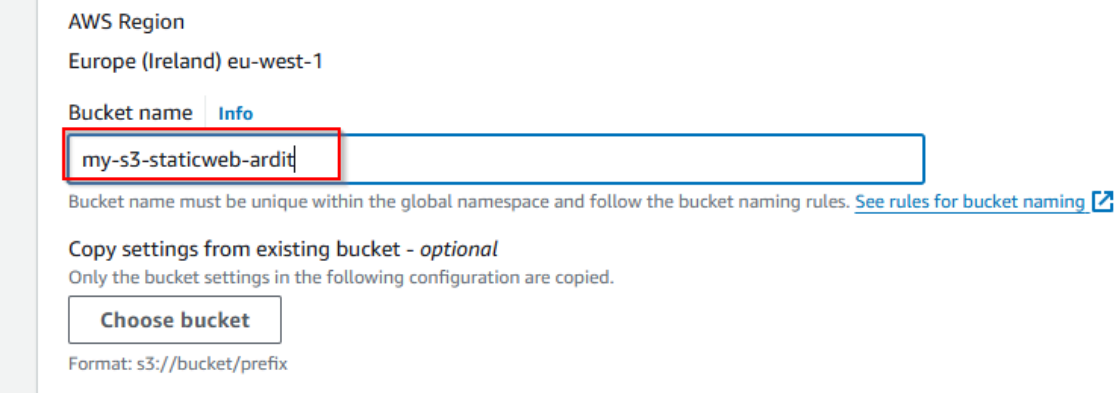
Go to **AWS console**, and on the **Storage**, section select **S3**



Click **Create Bucket**

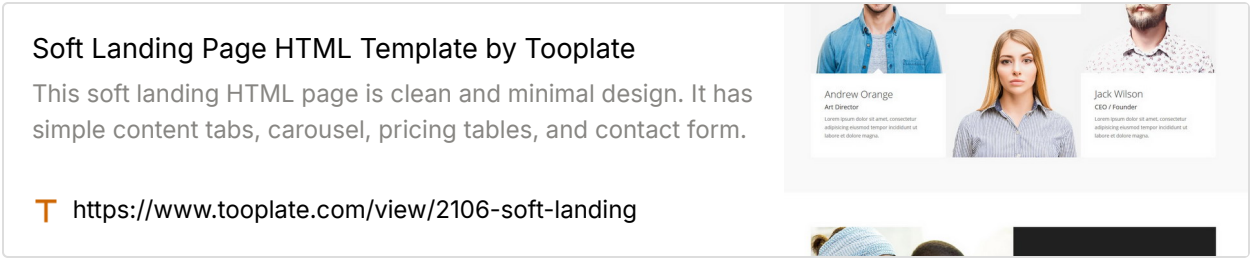


Give it a unique name, accept the defaults and click *create*.

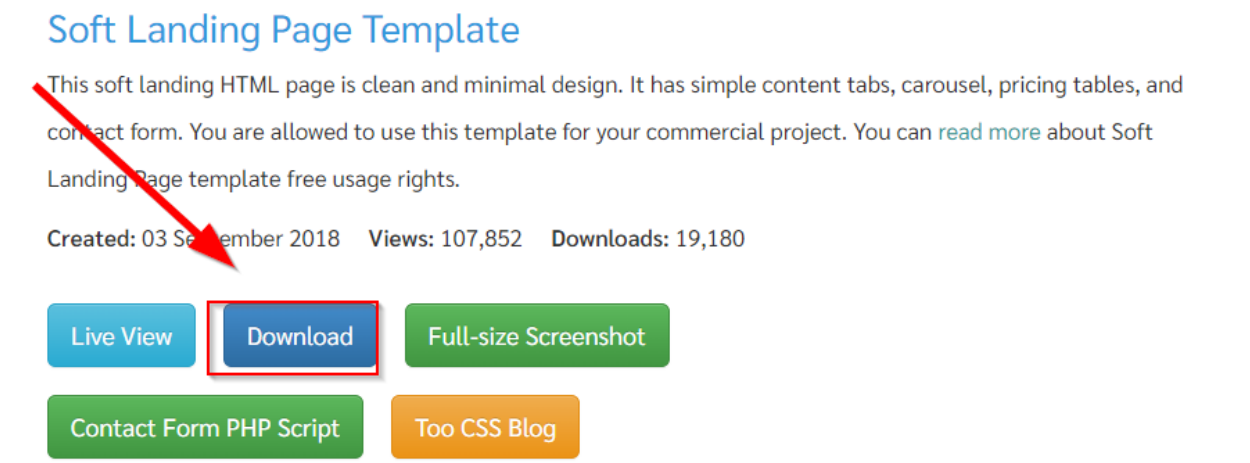


Now we are gonna upload a static website. Go to https://www.tooplate.com/ and download any free theme as you like

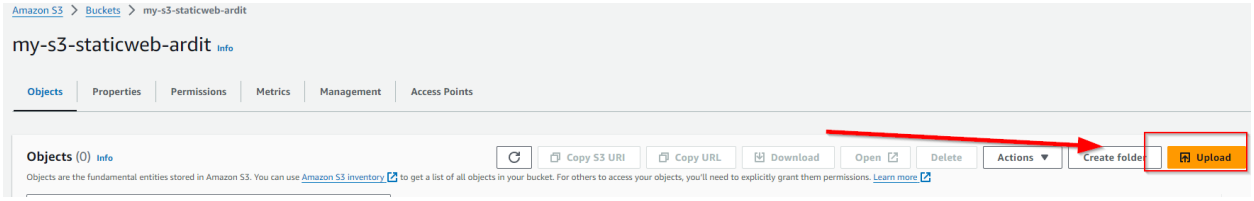
Im going to choose this template:



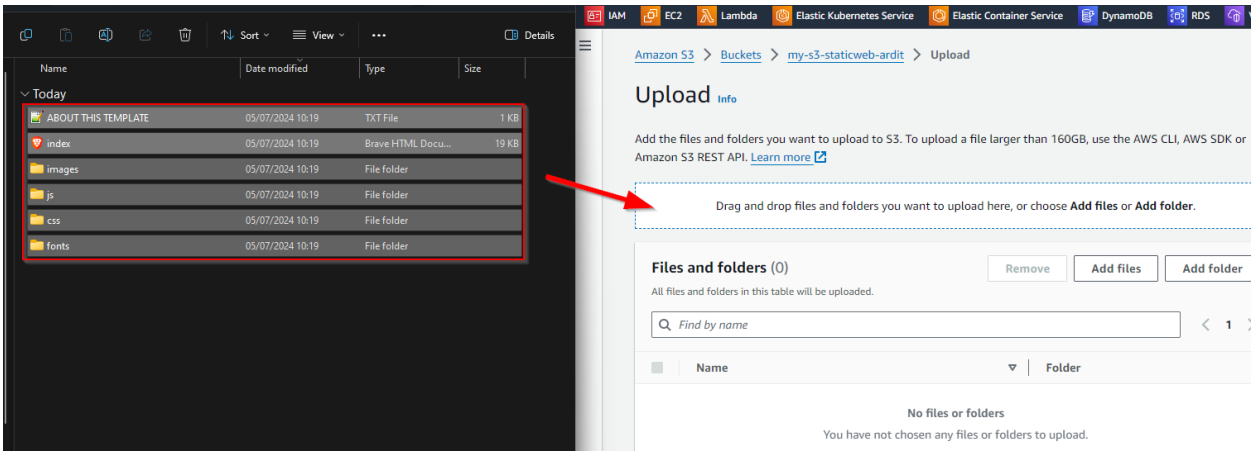
Click *download* and than extract the files

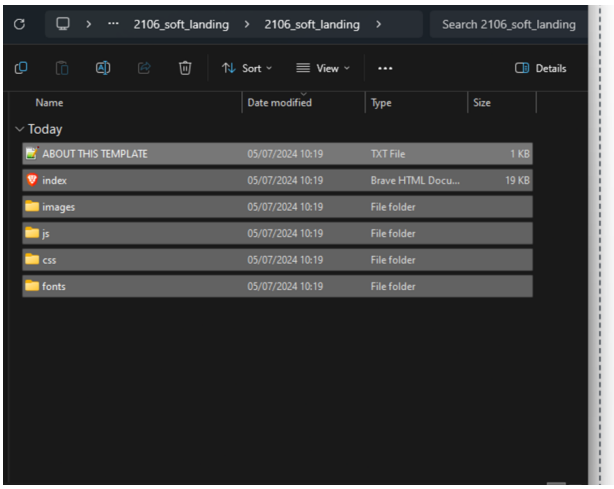


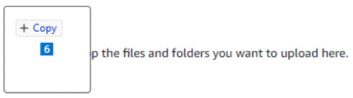
After extracting go to your bucked and click *upload*



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

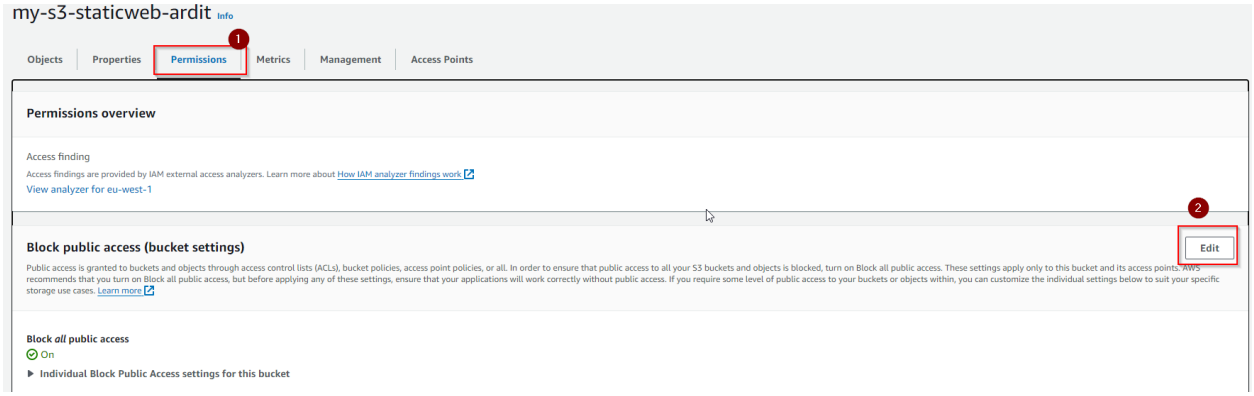






After that, in the bottom of the page click *Upload* and wait the files to be uploaded.

Now go to the permissions tab and **Block public access (bucket settings) click *edit***

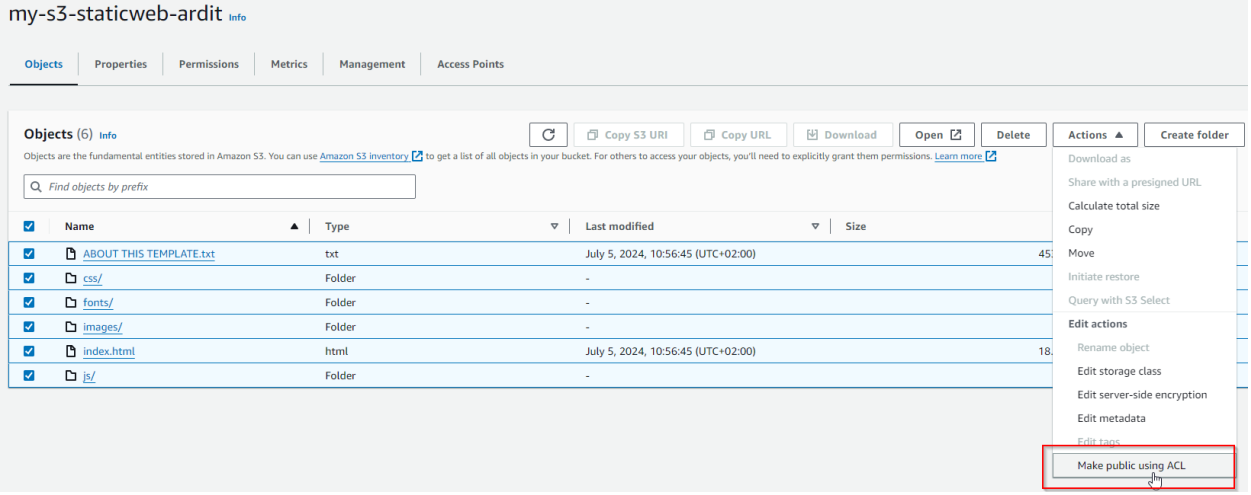


Disable: **Block all public access**, click Save changes and type *confirm* on the pop-up window.

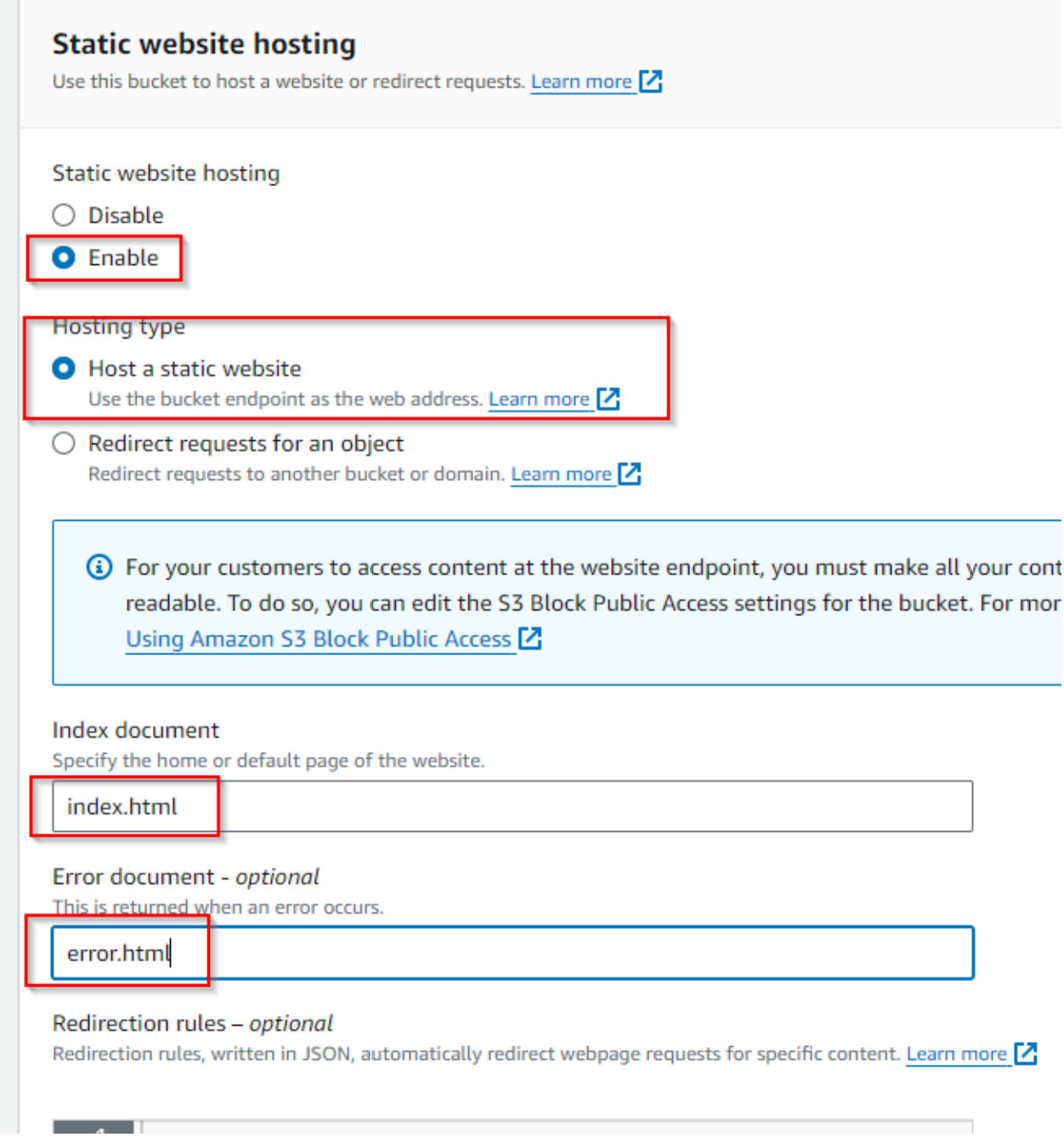
Next click edit on the **Object Ownership > Edit**

Click ACLs enabled, confirm and save changes.

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



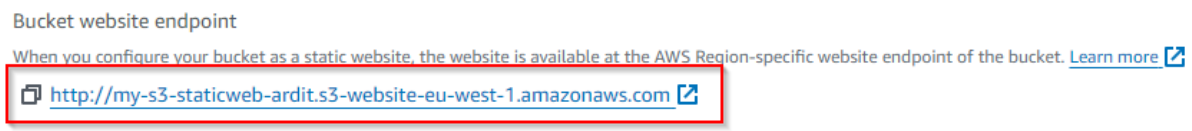
Go to **Properties** > **Static website hosting** > Edit > Enable

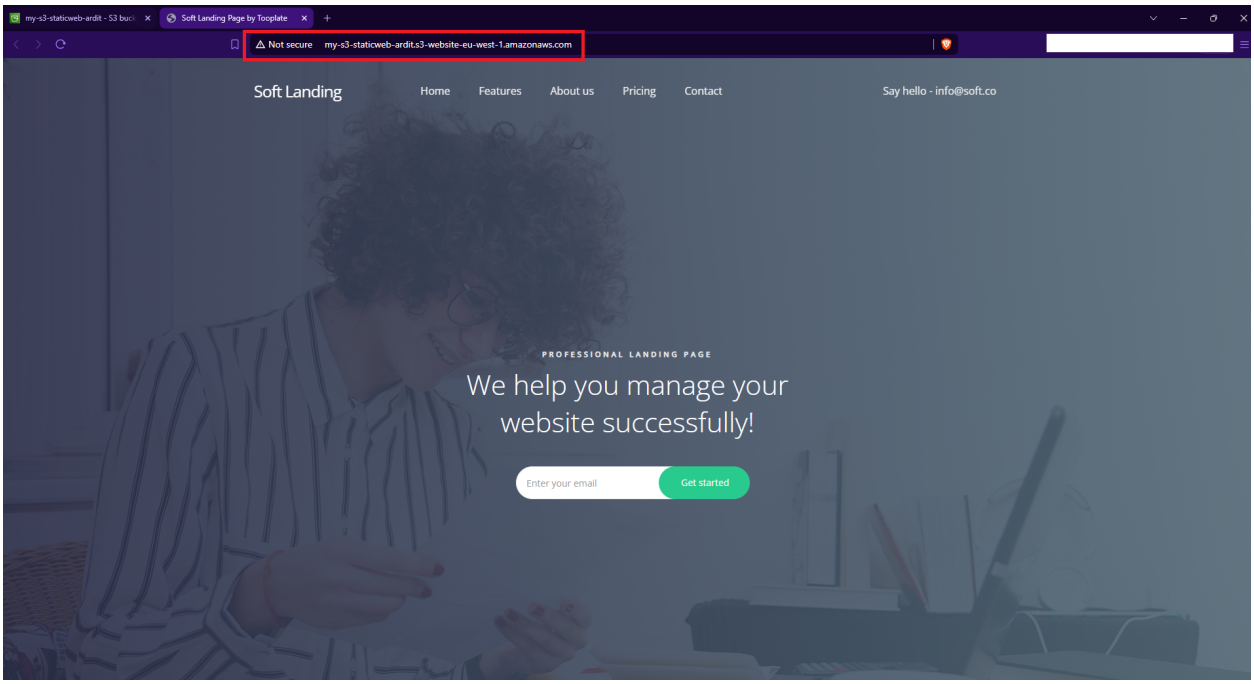


Note that the name of *index.html* is in your S3 bucket from when we uploaded.

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

Now click on the link to view your website.

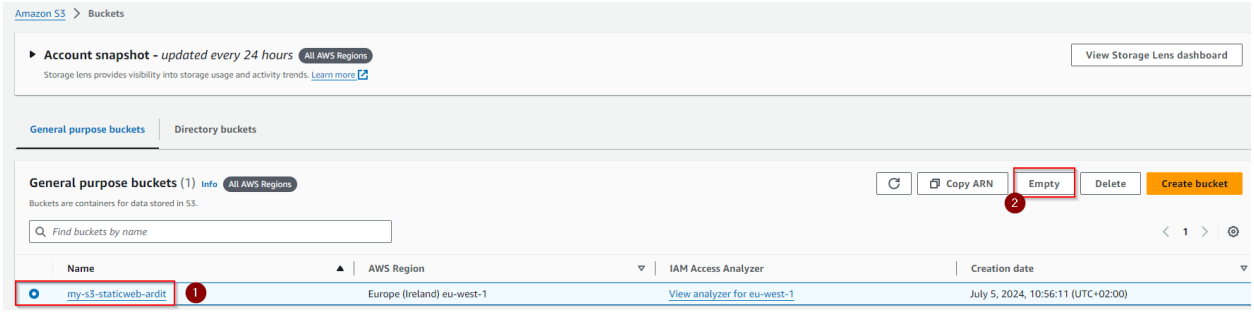


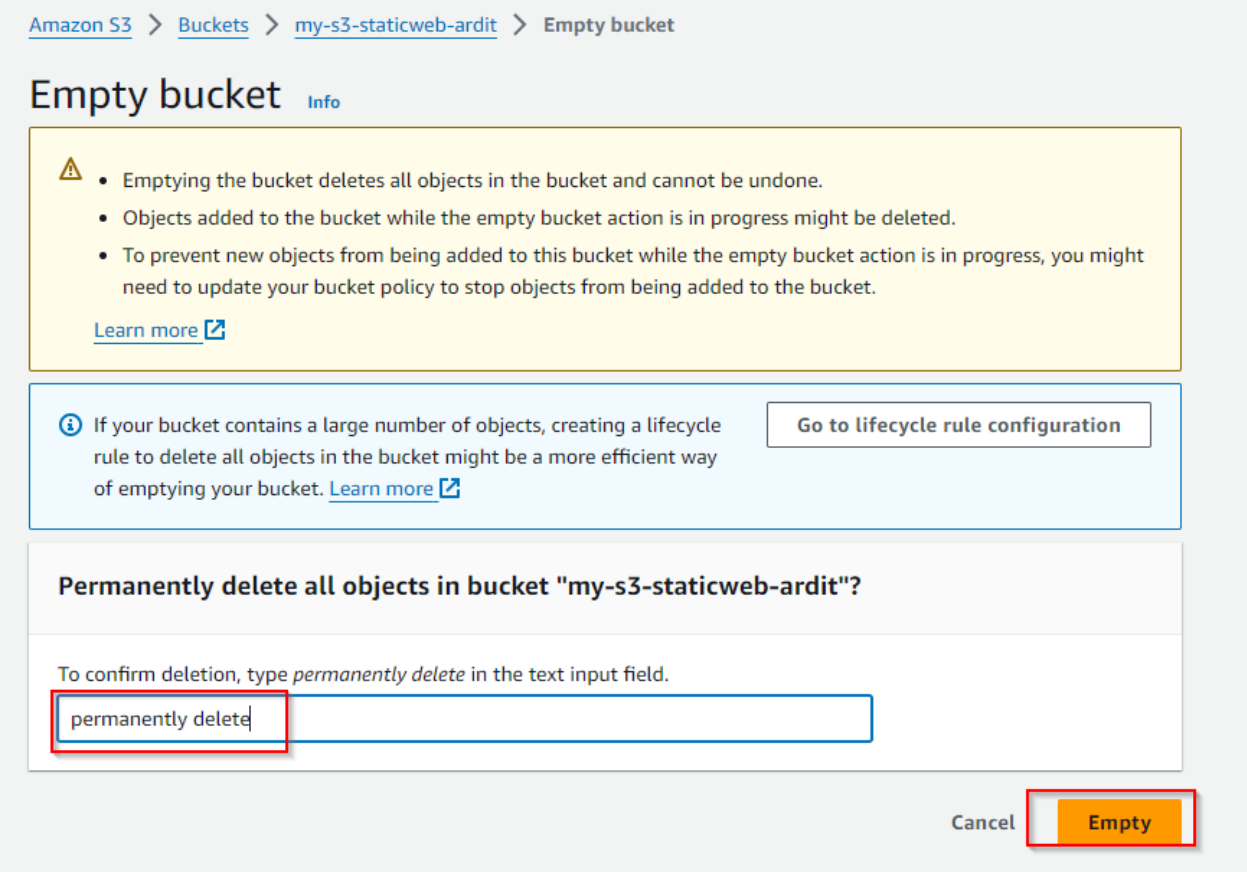


This is how you host a static website on S3.

Note: Dont forget to delete everything.

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





Than **Delete** the bucket