

**Faith Ashiono**

## **AWS Storage**

### **Problem Statement:**

You're tasked with creating a basic storage solution using Amazon S3 to upload and download files.

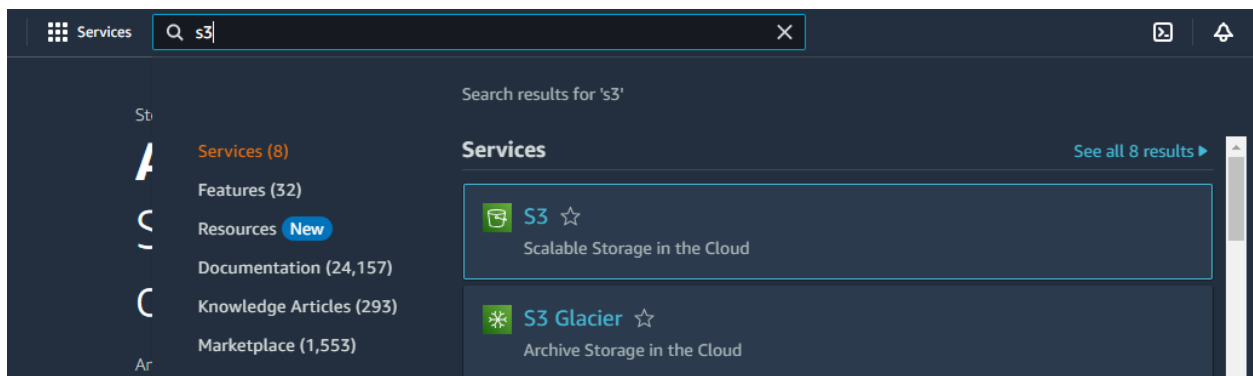
### **Guidelines/Goals:**

#### **1. Create S3 Bucket:**

- a. **Create a new S3 bucket with a unique name.**
- b. **Choose a region and configure public access settings.**

### **Steps**

- In the management console, search for **S3**



- Name your s3 bucket. Ensure it has no capital letters

aws

Services

Q Search

[Alt+S]

Amazon S3 > Buckets > Create bucket

Create bucket [Info](#)

Buckets are containers for data stored in S3. [Learn more](#)

General configuration

AWS Region

US East (Ohio) us-east-2

Bucket name [Info](#)

faithwebhosting

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

- Scroll to the **Object Ownership** section and select **ACLs enabled**.

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[Alt+S]

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.

- To configure public access settings scroll to the **Block Public Access settings** for this bucket and untick the **Block all public access**


Services


[Alt+S]

### Block Public Access settings for this bucket

Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to this bucket and its objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more](#)

☐ **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.
 

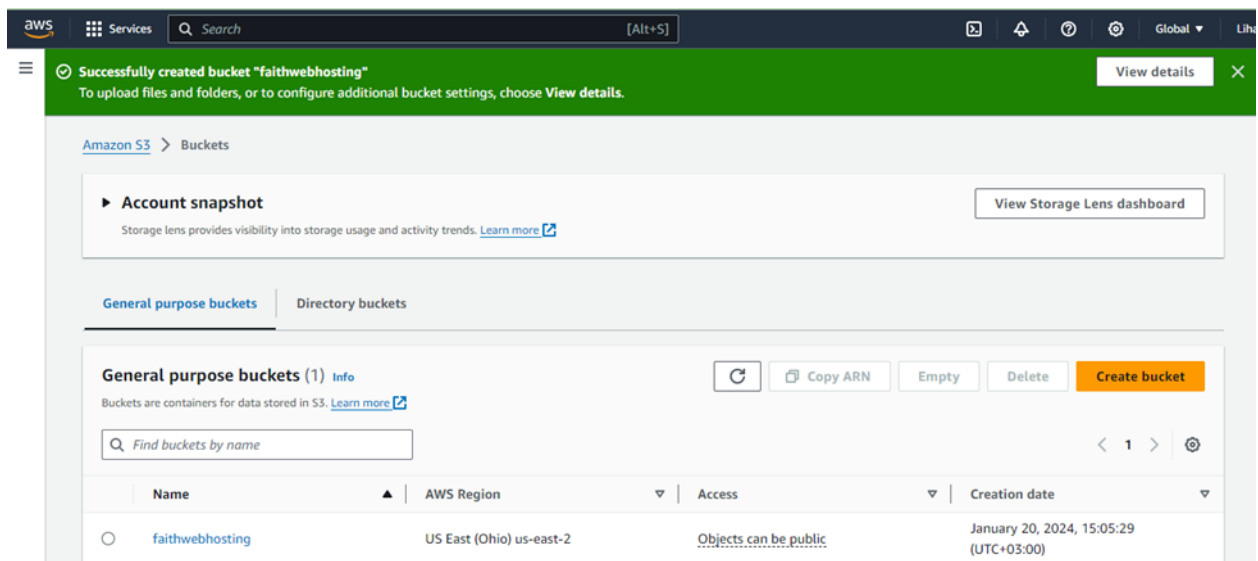
- ☐ **Block public access to buckets and objects granted through *new* access control lists (ACLs)**  
 S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any 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.

The s3 bucket will be successfully created as the screenshot below.



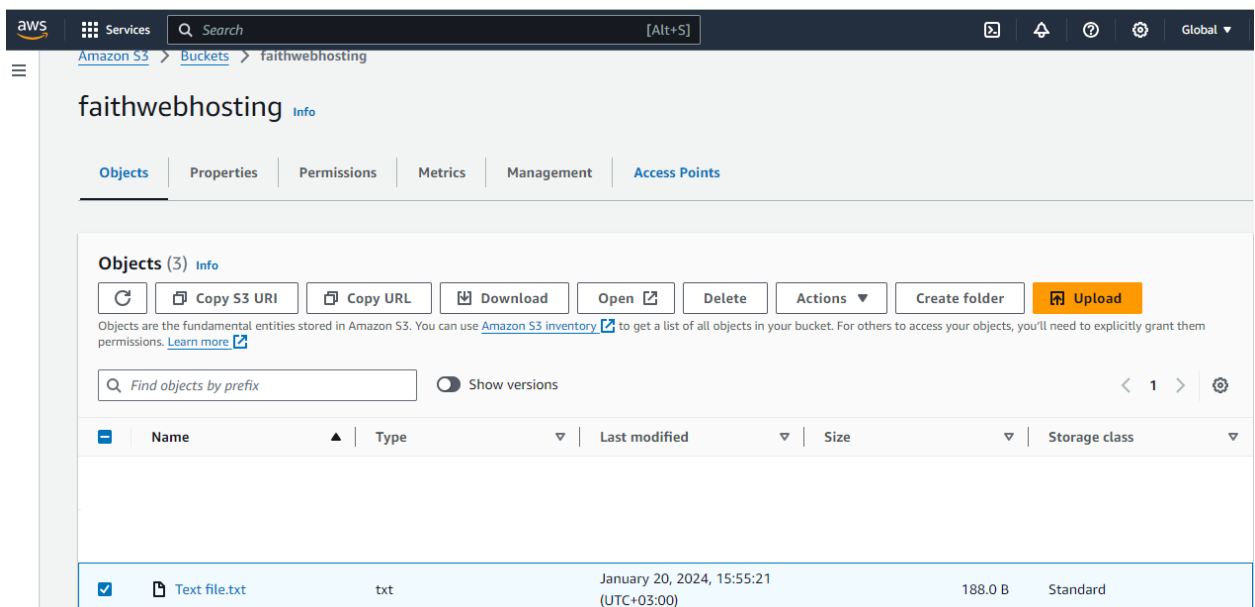
## 2. Upload and Download:

- a. Use the AWS Management Console to upload a text file to your S3 bucket.
- b. Set the file to be publicly accessible and note its URL.

### Steps

Upload the text file from your computer.

Click on the text file and Copy URL



### 3. Versioning

a. Enable versioning on your S3 bucket.

b. Upload a new version of the text file and observe version changes.

#### Steps

- i. Click on your S3 bucket, scroll down to **Bucket Versioning** and click **enable**


### Bucket Versioning

Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. [Learn more](#)

Bucket Versioning

☐ Disable

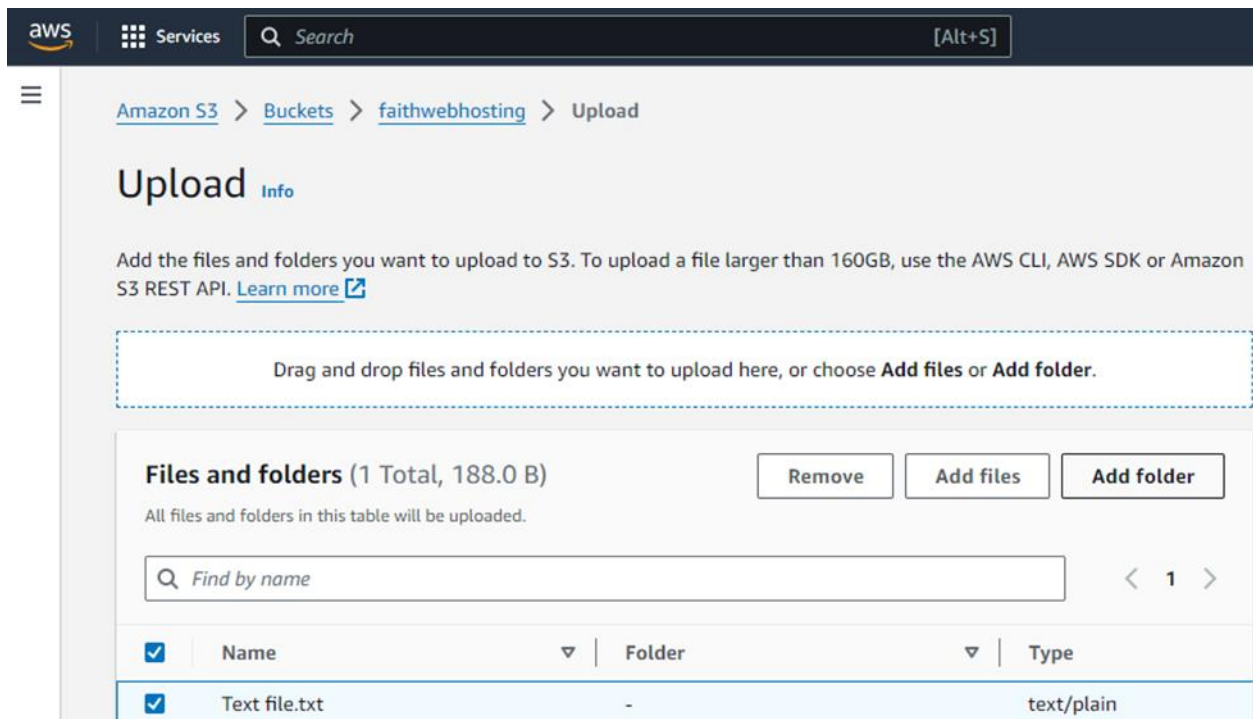
☒ Enable

 After creating the bucket, you can upload files and folders to the bucket, and configure additional bucket settings.

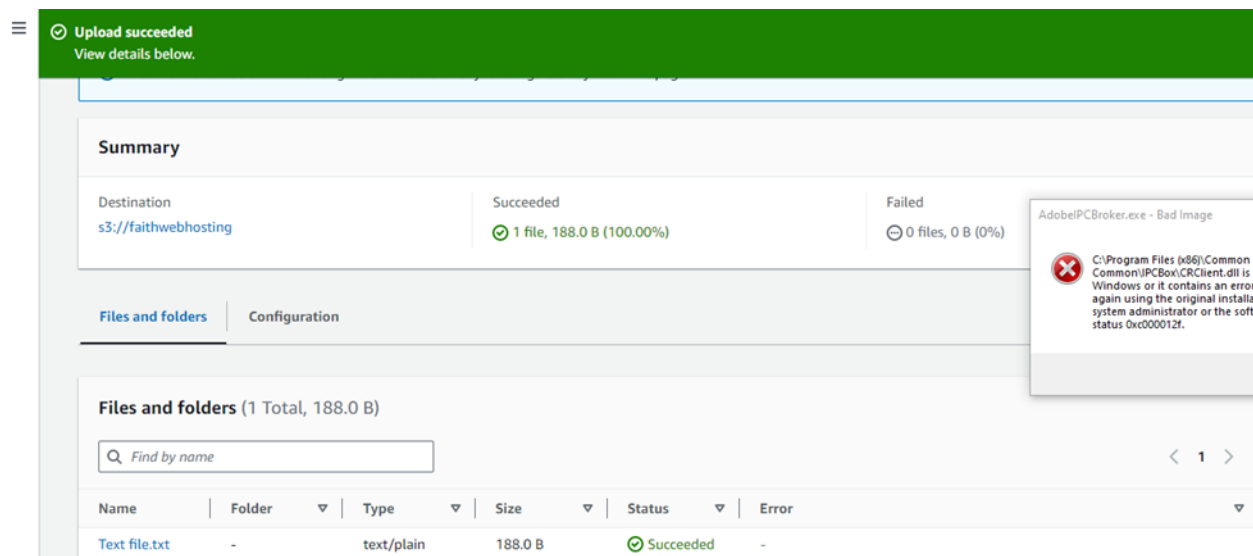
Cancel

Create bucket

- ii. Upload a text file from your browser



- iii. Make a few changes on your text file on your local machine, save and upload it again to your s3 bucket.



- iv. Click on the uploaded text file and click on versions, you'll see two versions of the same text file.

# Text file.txt

Info

- Copy S3 URI
- Download
- Open
- Object actions

- Properties
- Permissions
- Versions

Versions (2)



Download

Open

Delete

Actions

< 1 >

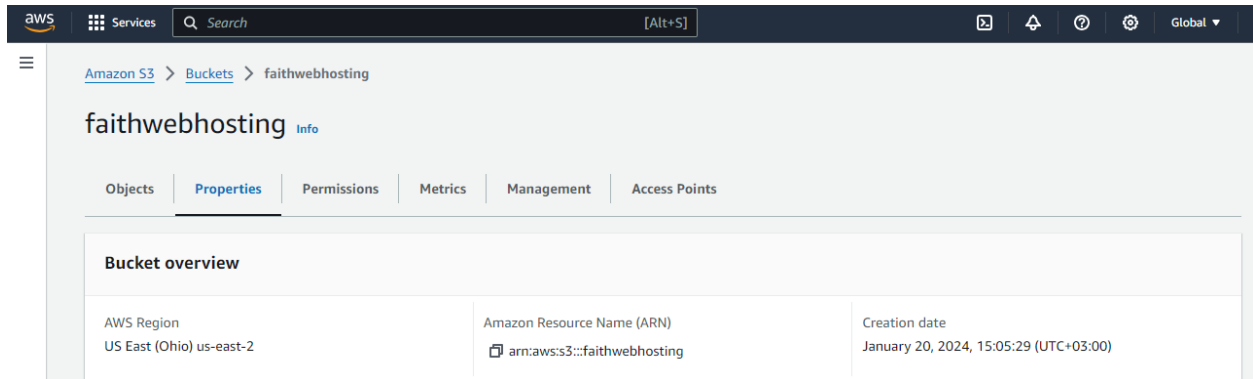
<input type="checkbox"/>	Version ID	Type	Last modified	Size	Storage class
<input type="checkbox"/>	<div><div></div>qbZjb9WW5uPXpa7W8dEVmhWDPgaedzua (Current version)</div>	txt	January 20, 2024, 15:55:21 (UTC+03:00)	188.0 B	Standard
<input type="checkbox"/>	<div><div></div><a href="#">3FXk_0fhFbrl7kW3qGagmSWepOsc.9o8</a></div>	txt	January 20, 2024, 15:33:30 (UTC+03:00)	152.0 B	Standard

## 4. Static Website Hosting

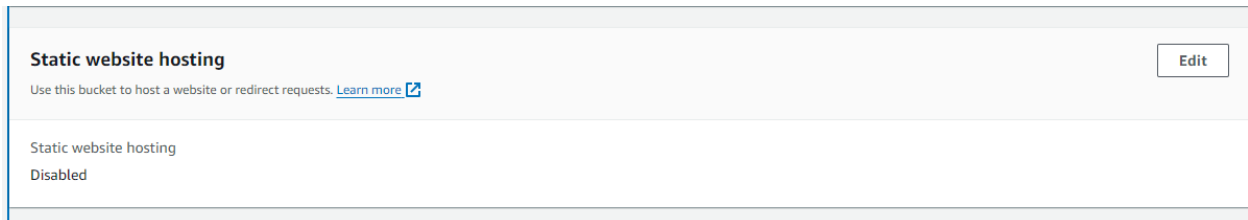
- a. **Configure your S3 bucket for static website hosting.**
- b. **Upload an HTML file and test accessing it via the provided endpoint.**

### Steps

- i. On your S3 bucket, click on **Properties** and scroll down to **Static website hosting**.



- ii. Click on **Edit**





- iii. Click on **Enable**

The screenshot shows the AWS console interface. At the top is a dark navigation bar with the AWS logo, a 'Services' menu, a search bar, and a '[Alt+S]' shortcut. Below this is a breadcrumb trail: 'Amazon S3 > Buckets > faithwebhosting > Edit static website hosting'. The main heading is 'Edit static website hosting' with an 'Info' link. A section titled 'Static website hosting' contains the instruction 'Use this bucket to host a website or redirect requests.' and a 'Learn more' link. Below this, there are two settings sections. The first, 'Static website hosting', has two radio buttons: 'Disable' and 'Enable', with 'Enable' selected. The second, 'Hosting type', has two radio buttons: 'Host a static website' (selected) and 'Redirect requests for an object'. Each option has a brief description and a 'Learn more' link. A light blue information box at the bottom contains a note about making content publicly readable and a link to 'Using Amazon S3 Block Public Access'.

aws Services Search [Alt+S]

Amazon S3 > Buckets > faithwebhosting > 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](#)

**Info** 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](#)

- iv. Specify the name of your web file according to how it's named on the local machine and save.

This screenshot shows the configuration fields for the static website. The 'Index document' section has a description 'Specify the home or default page of the website.' and a text input field containing 'index.html'. The 'Error document - optional' section has a description 'This is returned when an error occurs.' and a text input field containing 'error.html'. At the bottom right, there are two buttons: 'Cancel' and 'Save changes'.

**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

Cancel Save changes

- v. Uploading objects/files to S3 bucket i.e. the html file and associated files including CSS

The image shows two screenshots of the AWS Management Console. The top screenshot displays the 'faithwebhosting' S3 bucket with no objects. The bottom screenshot shows the 'Upload' page where two files, 'index.html' and 'styles.css', are being uploaded.

**Top Screenshot: S3 Bucket Overview**

Navigation: Amazon S3 > Buckets > faithwebhosting

### faithwebhosting [Info](#)

**Objects (0) [Info](#)**

Buttons: Refresh, Copy S3 URI, Copy URL, Download, Open, Delete, Actions, Create folder, Upload

Text: 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](#)

Search: Find objects by prefix. Show versions: ☐

Name	Type	Last modified	Size	Storage class
No objects				
You don't have any objects in this bucket.				

Upload

**Bottom Screenshot: Upload Page**

Navigation: Amazon S3 > Buckets > faithwebhosting > Upload

### Upload [Info](#)

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. [Learn more](#)

Drag and drop files and folders you want to upload here, or choose **Add files** or **Add folder**.

**Files and folders (2 Total, 732.0 B)** [Remove](#) [Add files](#) [Add folder](#)

All files and folders in this table will be uploaded.

Search: Find by name. Page: 1

<input type="checkbox"/>	Name	Folder	Type
<input type="checkbox"/>	index.html	-	text/html
<input type="checkbox"/>	styles.css	-	text/css

- vi. To make the files public, click on **Objects**, select the two files html and css.
- vii. Click on **Actions** and select **Make public using ACL**

Objects

Properties

Permissions

Metrics

Management

Access Points

Objects (3) 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. If you want to view or download objects, you'll need to explicitly grant them permissions. [Learn more](#)

Find objects by prefix

Show versions

	Name	Type	Last modified	Size
<input checked="" type="checkbox"/>	index.html	html	January 20, 2024, 15:33:31 (UTC+03:00)	
<input checked="" type="checkbox"/>	styles.css	css	January 20, 2024, 15:33:32 (UTC+03:00)	
<input type="checkbox"/>	Text file.txt	txt	January 20, 2024, 15:55:21 (UTC+03:00)	

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

[Amazon S3](#) > [Buckets](#) > [faithwebhosting](#) > Make public

## Make public Info

The make public action enables public read access in the object access control list (ACL) settings. [Learn more](#)

**⚠** When public read access is enabled and not blocked by Block Public Access settings, anyone in the world can access the specified objects.

### Specified objects

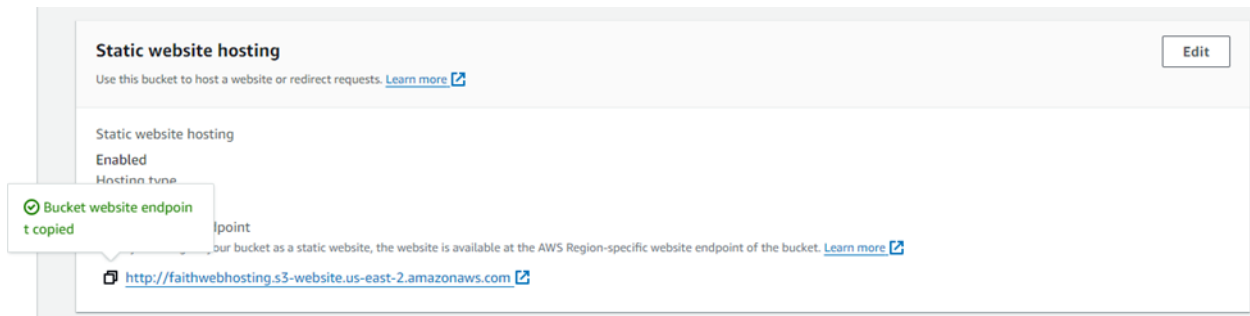
Find objects by name

Name	Type	Last modified	Size
index.html	html	January 20, 2024, 15:33:31 (UTC+03:00)	432.0 B
styles.css	css	January 20, 2024, 15:33:32 (UTC+03:00)	300.0 B

Cancel

Make public

Scroll down to **Static website hosting** and click on the URL/endpoint



Copy the URL to your browser and the static website should be visible and accessible by the public.

