

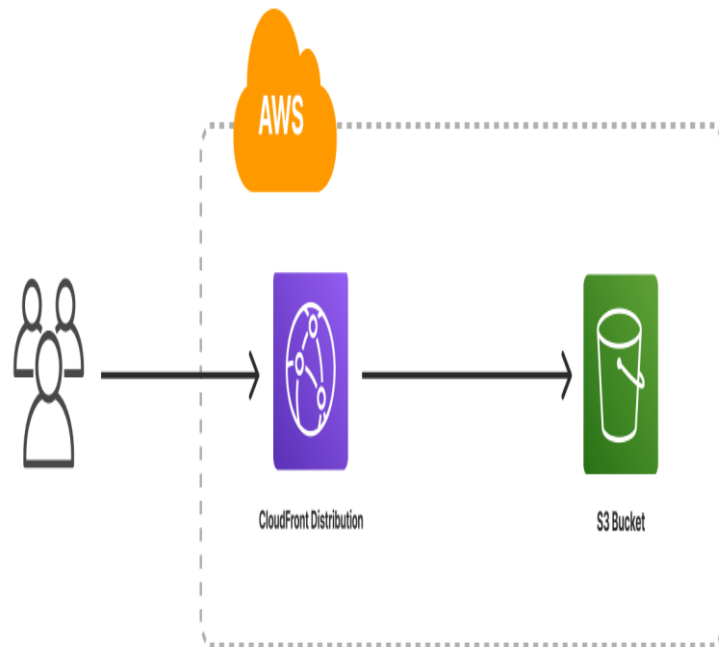
October project

New project launches  
In AWS

## Project: Deploy Static Website on AWS

Hello, my name: Aya Rabih  
working! Dev-ops  
engineering in multinational  
lovely company and today  
we will learn Deploy Static  
Website on AWS. This  
project it is so critical to lean  
it and get more info for cloud  
and AWS.

So, in this documentation  
you will find all steps you  
need it to create it with deep  
details.



Create by Aya Rabih

Linked 

 GitHub

# PROJECT OVERVIEW

The cloud is perfect for hosting static websites that only include HTML, CSS, and JavaScript files that require no server-side processing. The whole project has two major intentions to implement:

Hosting a static website on S3 and

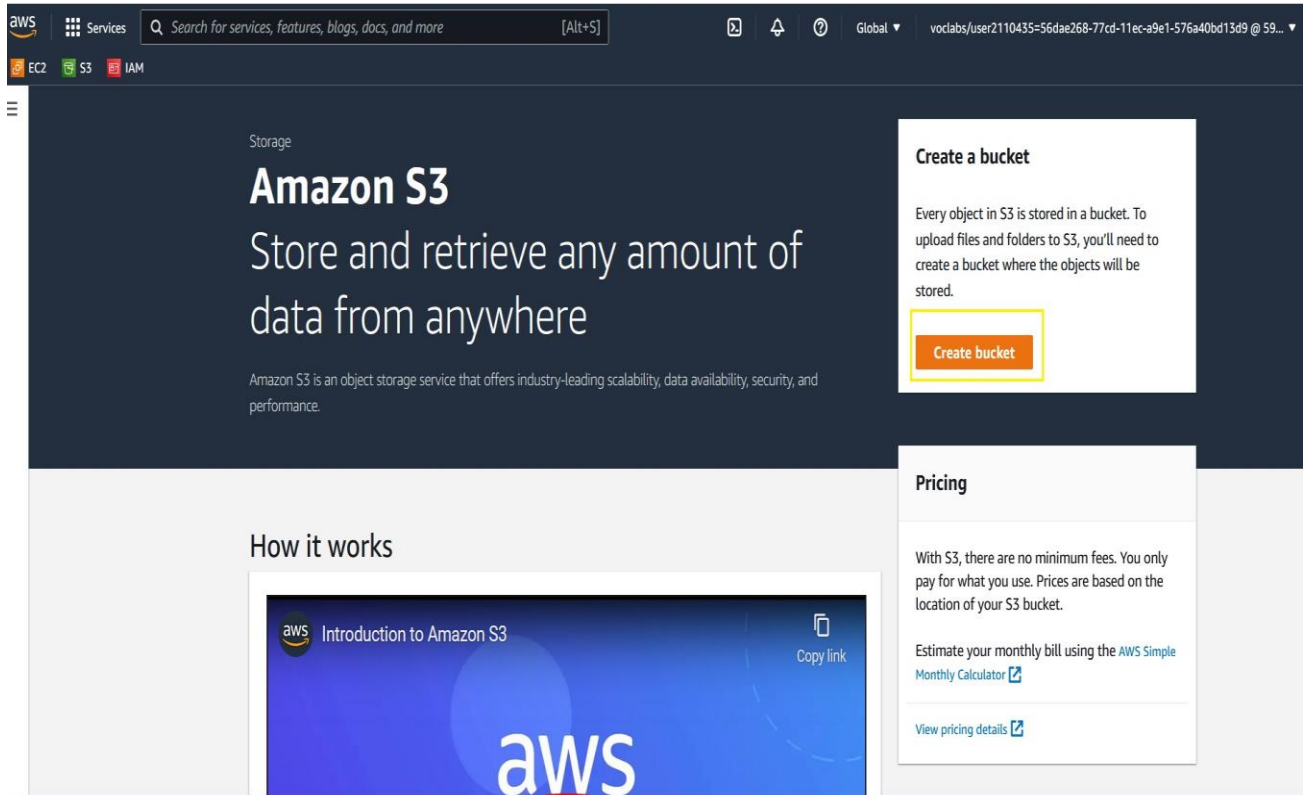
Accessing the cached website pages using Cloud Front content delivery network (CDN) service. Recall that Cloud Front offers low latency and high transfer speeds during website rendering.

Note that Static website hosting essentially requires a public bucket, whereas the Cloud Front can work with public and private buckets.

- In this project, you will deploy a static website to AWS by performing the following steps:
  1. You will create a public S3 bucket and upload the website files to your bucket.
  2. You will configure the bucket for website hosting and secure it using IAM policies.
  3. You will speed up content delivery using AWS's content distribution network service, Cloud Front.
  4. You will access your website in a browser using the unique Cloud Front endpoint.

1) You will create a public S3 bucket and upload the website files to your bucket.

➤ Click create bucket



➤ Click create bucket name

➤ Click create Region you will create your bucket there

➤ Click create Acls disabled

## Create bucket [Info](#)

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

### General configuration

#### Bucket name

my-598824656916 bucket

Bucket name must be globally unique and must not contain spaces or uppercase letters. [See rules for bucket naming](#)

#### AWS Region

US East (Ohio) us-east-2

#### Copy settings from existing bucket - *optional*

Only the bucket settings in the following configuration are copied.

Choose 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.

Object Ownership

Bucket owner enforced

- Click to remove block all public access
- Click to sure that you want be public

## 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.

➤ Click create bucket

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](#) 

☒ Disable

☐ Enable

Track storage cost or other criteria by tagging your bucket. [Learn more](#)

Add tag

Automatically encrypt new objects stored in this bucket. [Learn more](#)

☒ Disable

☐ Enable

Store objects using a write-once-read-many (WORM) model to help you prevent objects from being deleted or overwritten for a fixed amount of time or indefinitely. [Learn more](#)

☐ Enable

Permanently allows objects in this bucket to be locked. Additional Object Lock configuration is required in bucket details after bucket creation to protect objects in this bucket from being deleted or overwritten.

 Object Lock works only in versioned buckets. Enabling Object Lock automatically enables Bucket Versioning.

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

### Create bucket

➤ Now we create bucket

Successfully created bucket "my-598824656916-bucket"

To upload files and folders, or to configure additional bucket settings choose [View details](#).

Follow security best practices for S3.

[Learn more](#)

Amazon S3 > Buckets

Account snapshot

Storage lens provides visibility into storage usage and activity trends. [Learn more](#)

[View Storage Lens dashboard](#)

Buckets (1) [Info](#)

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

< 1 > [Settings](#)

Name	AWS Region	Access	Creation date
<a href="#">my-598824656916-bucket</a>	US East (Ohio) us-east-2	Objects can be public	September 6, 2022, 01:42:44 (UTC+02:00)

## 2. You will configure the bucket for website hosting and secure it using IAM policies

### ➤ Upload files to S3 Bucket

Amazon S3 > Buckets > my-598824656916-bucket

my-598824656916-bucket [Info](#)

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

Objects (0)

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](#)

[Refresh](#) [Copy S3 URI](#) [Copy URL](#) [Download](#) [Open](#) [Delete](#) [Actions](#) [Create folder](#) [Upload](#)

< 1 > [Settings](#)

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

[Upload](#)

- Click "Add files" to upload the index.html file, and click "Add folder" to upload the css, img, and vendor folders.

## 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 folders**.

Files and folders (0)

Remove

Add files

Add folder

All files and folders in this table will be uploaded.

< 1 >

	Name	Folder	Type	Size
No files or folders				
You have not chosen any files or folders to upload.				

حجم الملف	تاريخ آخر تعديل	الاسم
KB 342	-	MACOSX_ 
KB 15	-	css 
KB 418	-	img 
MB 14	-	vendor 
KB 6	2019/05/18	index.html 
382 بايت	2019/05/18	README.txt 



➤ Now update files to S3 Bucket

## 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 folders**.

**Files and folders** (1631 Total, 14.7 MB)  
All files and folders in this table will be uploaded.

[Remove](#) [Add files](#) [Add folder](#)

[<](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [...](#) [164](#) [>](#)

<input type="checkbox"/>	Name	Folder	Type	Size
<input type="checkbox"/>	.DS_Store	vendor/	-	6.0 KB
<input type="checkbox"/>	.DS_Store	vendor/bootstrap/	-	6.0 KB
<input type="checkbox"/>	.DS_Store	img/	-	6.0 KB
<input type="checkbox"/>	500px.svg	vendor/fontawesome-free/svg/brands/	image/svg+xml	1.2 KB
<input type="checkbox"/>	LICENSE.txt	vendor/fontawesome-free/	text/plain	1.5 KB
<input type="checkbox"/>	_animated.less	vendor/fontawesome-free/less/	-	297.0 B
<input type="checkbox"/>	_animated.scss	vendor/fontawesome-free/scss/	-	300.0 B
<input type="checkbox"/>	_bordered-pulled.less	vendor/fontawesome-free/less/	-	422.0 B
<input type="checkbox"/>	_bordered-pulled.scss	vendor/fontawesome-free/scss/	-	428.0 B
<input type="checkbox"/>	_core.less	vendor/fontawesome-free/less/	-	291.0 B

### Destination

Destination  
[s3://my-598824656916-bucket](#)

► **Destination details**  
Bucket settings that impact new objects stored in the specified destination.

► **Permissions**  
Grant public access and access to other AWS accounts.

► **Properties**  
Specify storage class, encryption settings, tags, and more.

[Cancel](#) [Upload](#)

## ➤ Now complete update files to S3 Bucket

**Upload: status** Close

The information below will no longer be available after you navigate away from this page.

**Summary**

Destination s3://my-598824656916-bucket	Succeeded 1631 files, 14.7 MB (100.00%)	Failed 0 files, 0 B (0%)
--	--	-----------------------------

**Files and folders** | Configuration

**Files and folders** (1631 Total, 14.7 MB)

Find by name

Name	Folder	Type	Size	Status
D5_Store	vendor/	-	6.0 KB	Succeeded
D5_Store	vendor/bootstrap/	-	6.0 KB	Succeeded
D5_Store	img/	-	6.0 KB	Succeeded
500px.svg	vendor/fontawesome-free/svg/brands/	image/svg+xml	1.2 KB	Succeeded
LICENSE.txt	vendor/fontawesome-free/	text/plain	1.5 KB	Succeeded
_animated.less	vendor/fontawesome-free/less/	-	297.0 B	Succeeded
_animated.scss	vendor/fontawesome-free/scss/	-	300.0 B	Succeeded
_bordered-pulled.less	vendor/fontawesome-free/less/	-	422.0 B	Succeeded
_bordered-pulled.scss	vendor/fontawesome-free/scss/	-	428.0 B	Succeeded
_core.less	vendor/fontawesome-free/less/	-	291.0 B	Succeeded

## 1. Click on the “Permissions” tab.

my-598824656916-bucket [info](#)

Objects | Properties | **Permissions** | Metrics | Management | Access Points

**Permissions overview**

Access  
Objects can be public

**Block public access (bucket settings)**  
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 all your S3 buckets and 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 your buckets or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more](#)

[Edit](#)

**Block all public access**  
**Off**  
Individual Block Public Access settings for this bucket

**Bucket policy**  
The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. [Learn more](#)

[Edit](#) [Delete](#)

No policy to display. [Copy](#)

2. The “Bucket Policy” section shows it is empty. Click on the Edit button.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "AddPerm",
      "Effect": "Allow",
      "Principal": "*",
      "Action": ["s3:GetObject"],
      "Resource": ["arn:aws:s3::: my-598824656916-bucket/*"]
    }
  ]
}
```

3- Enter the following bucket policy replacing my-598824656916-bucket with the name of your bucket and click “Save”.

Bucket ARN  
arn:aws:s3:::my-598824656916-bucket

Policy

```
1 {
2   "Version": "2012-10-17",
3   "Statement": [
4     {
5       "Sid": "AddPerm",
6       "Effect": "Allow",
7       "Principal": "*",
8       "Action": ["s3:GetObject"],
9       "Resource": ["arn:aws:s3:::my-598824656916-bucket/*"]
10    }
11  ]
12 }
```

[+ Add new statement](#)

JSON Ln 12, Col 2

[Cancel](#) [Save changes](#)

**Edit statement**

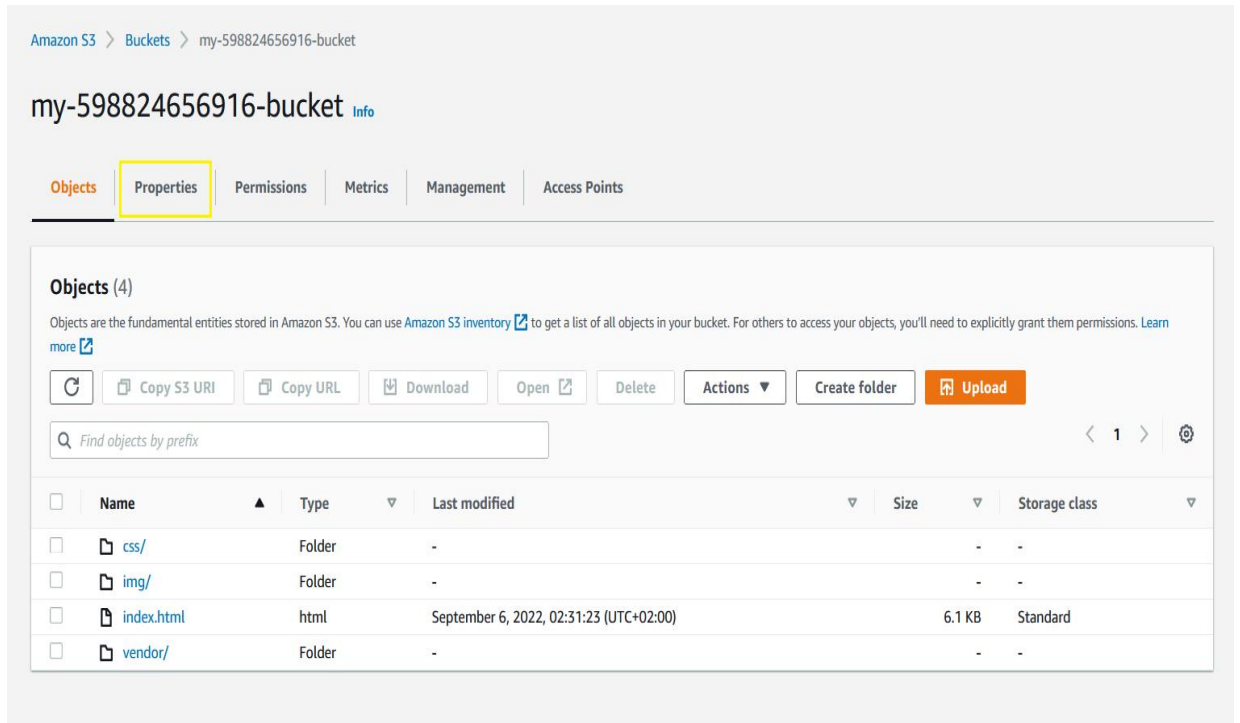
**Select a statement**

Select an existing statement in the policy or add a new statement.

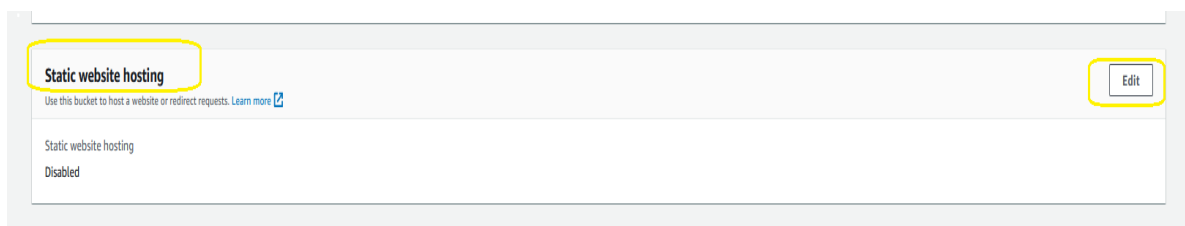
[+ Add new statement](#)

# CONFIGURE S3 BUCKET

1. Go to the Properties tab and then scroll down to edit the Static website hosting section



2. Click on the “Edit” button to see the Edit static website hosting screen.



- Now, enable the Static website hosting, and provide the default home page and error page for your website.

## 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](#)

**i** 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](#)

Index document

Specify the home or default page of the website.

index.html

Error document - *optional*

This is returned when an error occurs.

index.html

Redirection rules – *optional*

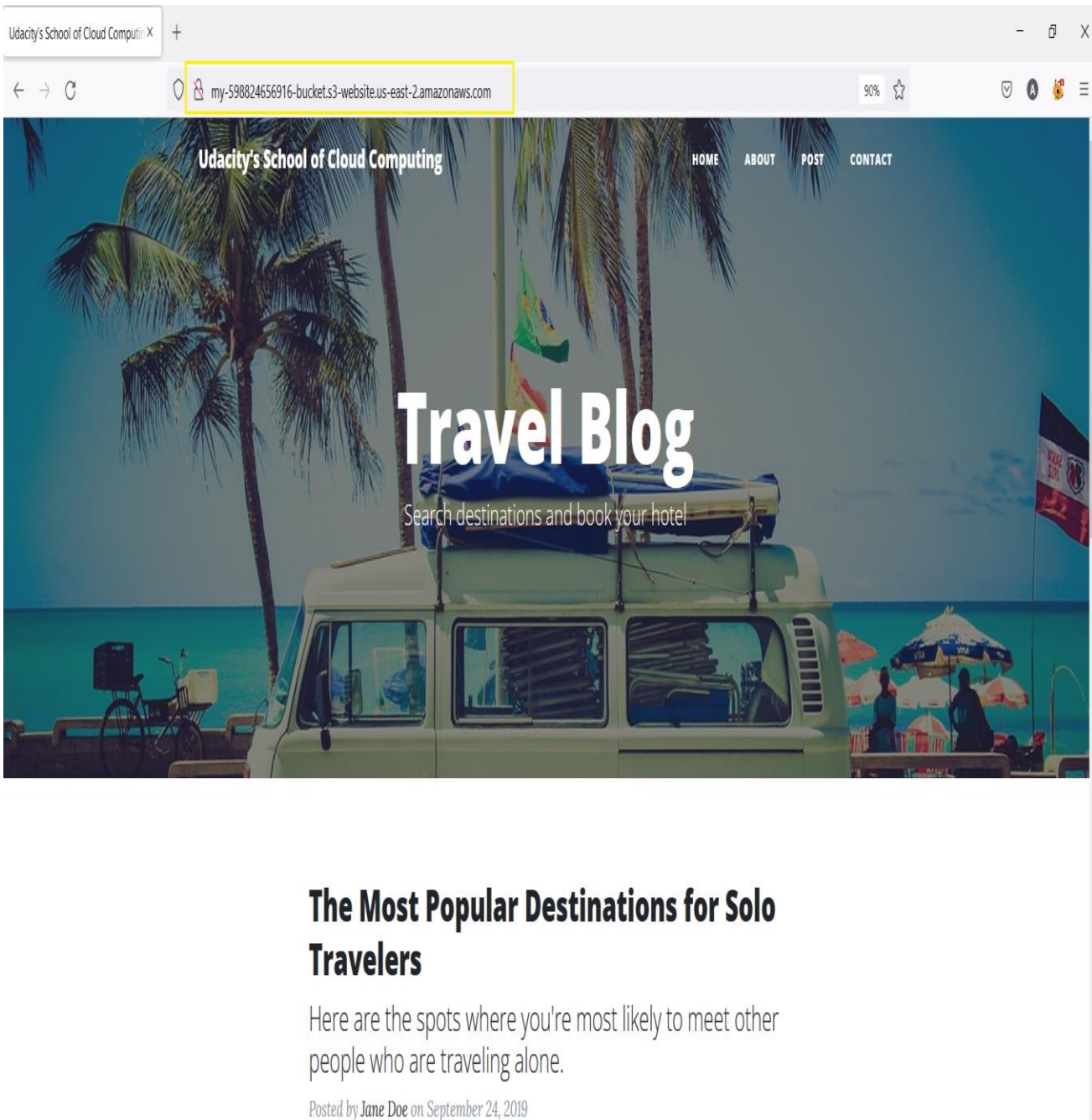
Redirection rules, written in JSON, automatically redirect webpage requests for specific content. [Learn more](#)

1	
---	--

4. Check the **Static website hosting** section again under the **Properties** tab. You must now be able to view the website endpoint as shown below:

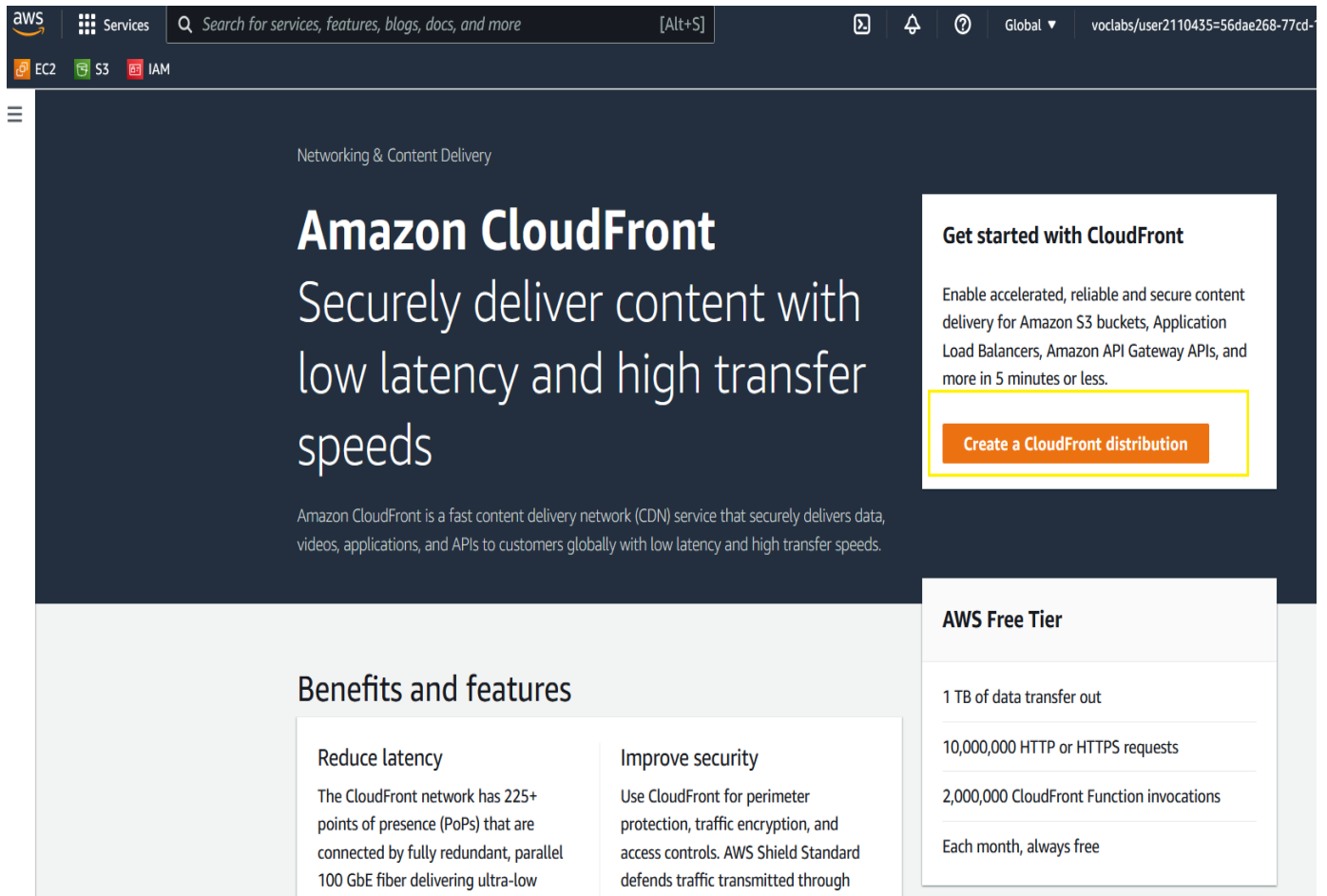
The screenshot displays the AWS S3 console's Properties tab for a bucket. At the top, a green notification bar states "Successfully edited static website hosting." Below this, several configuration sections are visible: "Transfer acceleration" (Disabled), "Object Lock" (Disabled, with a note that it cannot be enabled after bucket creation), and "Requester pays" (Disabled). The "Static website hosting" section is highlighted with a yellow border and shows "Static website hosting" as "Enabled". It lists "Hosting type" as "Bucket hosting". Under "Bucket website endpoint", a red box highlights the endpoint URL: `http://my-598824656916-bucket.s3-website-us-east-2.amazonaws.com`. Each section has an "Edit" button in the top right corner.

5. Copy the website endpoint for future use (WE GIT IT )



## Distribute Website via CloudFront

1. Select “cloud front”
2. Click “Create Distribution”.



The screenshot shows the Amazon CloudFront website. The top navigation bar includes the AWS logo, a 'Services' menu, a search bar, and a user profile. The main content area has a dark blue background with the text 'Networking & Content Delivery' and 'Amazon CloudFront'. Below this, it says 'Securely deliver content with low latency and high transfer speeds'. A description states: 'Amazon CloudFront is a fast content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to customers globally with low latency and high transfer speeds.' A prominent orange button labeled 'Create a CloudFront distribution' is highlighted with a yellow border. To the right, a 'Get started with CloudFront' section explains that it enables accelerated, reliable, and secure content delivery for various AWS services in under 5 minutes. Below the main heading, a 'Benefits and features' section is divided into two columns: 'Reduce latency' (mentioning 225+ PoPs and 100 GbE fiber) and 'Improve security' (mentioning perimeter protection and AWS Shield Standard). On the right side, an 'AWS Free Tier' section lists: 1 TB of data transfer out, 10,000,000 HTTP or HTTPS requests, 2,000,000 CloudFront Function invocations, and 'Each month, always free'.

aws Services Search for services, features, blogs, docs, and more [Alt+S] Global ▼ voclabs/user2110435=56dae268-77cd-

EC2 S3 IAM

Networking & Content Delivery

# Amazon CloudFront

Securely deliver content with low latency and high transfer speeds

Amazon CloudFront is a fast content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to customers globally with low latency and high transfer speeds.

**Get started with CloudFront**

Enable accelerated, reliable and secure content delivery for Amazon S3 buckets, Application Load Balancers, Amazon API Gateway APIs, and more in 5 minutes or less.

[Create a CloudFront distribution](#)

## Benefits and features

### Reduce latency

The CloudFront network has 225+ points of presence (PoPs) that are connected by fully redundant, parallel 100 GbE fiber delivering ultra-low latency to end users.

### Improve security

Use CloudFront for perimeter protection, traffic encryption, and access controls. AWS Shield Standard defends traffic transmitted through CloudFront.

### AWS Free Tier

- 1 TB of data transfer out
- 10,000,000 HTTP or HTTPS requests
- 2,000,000 CloudFront Function invocations
- Each month, always free



### 3. Configure distribution

## Create distribution

#### Origin

Don't select the bucket from the dropdown list. Paste the Static website hosting endpoint of the form `http://my-598824656916-bucket.s3-website.us-east-2.amazonaws.com/`

##### Origin domain

Choose an AWS origin, or enter your origin's domain name.



my-598824656916-bucket.s3-website.us-east-2.amazonaws.com

#### Origin path - optional [Info](#)

Enter a URL path to append to the origin domain name for origin requests.

Enter the origin path

#### Name

Enter a name for this origin.

my-598824656916-bucket.s3-website.us-east-2.amazonaws.com

#### Add custom header - optional

CloudFront includes this header in all requests that it sends to your origin.

Add header

#### Enable Origin Shield [Info](#)

Origin Shield is an additional caching layer that can help reduce the load on your origin and help protect its availability.

☒ No

☐ Yes

► Additional settings

## Default cache behavior

Path pattern [Info](#)

Default (\*)

Compress objects automatically [Info](#)

- ☐ No  
☒ Yes

### Viewer

Viewer protocol policy

- ☐ HTTP and HTTPS  
☒ Redirect HTTP to HTTPS  
☐ HTTPS only

Allowed HTTP methods

- ☒ GET, HEAD  
☐ GET, HEAD, OPTIONS  
☐ GET, HEAD, OPTIONS, PUT, POST, PATCH, DELETE

Restrict viewer access

If you restrict viewer access, viewers must use CloudFront signed URLs or signed cookies to access your content.

- ☒ No  
☐ Yes

### Cache key and origin requests

We recommend using a cache policy and origin request policy to control the cache key and origin requests.

- ☒ Cache policy and origin request policy (recommended)  
☐ Legacy cache settings

Cache policy

Choose an existing cache policy or create a new one.

CachingOptimized

Default policy when CF compression is enabled

[Create policy](#) [View policy](#)

Origin request policy - optional

Choose an existing origin request policy or create a new one.

## 5. Click distribution

### Settings

Price class [Info](#)  
Choose the price class associated with the maximum price that you want to pay.

☒ Use all edge locations (best performance)  
☐ Use only North America and Europe  
☐ Use North America, Europe, Asia, Middle East, and Africa

AWS WAF web ACL - optional  
Choose the web ACL in AWS WAF to associate with this distribution.

Choose web ACL ▼

Alternate domain name (CNAME) - optional  
Add the custom domain names that you use in URLs for the files served by this distribution.


Add item

ⓘ To add a list of alternative domain names, use the [bulk editor](#).

Custom SSL certificate - optional  
Associate a certificate from AWS Certificate Manager. The certificate must be in the US East (N. Virginia) Region (us-east-1).

Choose certificate ▼ 

↺

[Request certificate](#) 

Supported HTTP versions  
Add support for additional HTTP versions. HTTP/1.0 and HTTP/1.1 are supported by default.

☒ HTTP/2  
☐ HTTP/3

Default root object - optional  
The object (file name) to return when a viewer requests the root URL (/) instead of a specific object.

Standard logging  
Get logs of viewer requests delivered to an Amazon S3 bucket.

☒ Off  
☐ On

IPv6

☐ Off  
☒ On

Description - optional

Cancel

Create distribution

6. now all things is perfect distribution

7. get link cope and past in new tap

Successfully created new distribution.

Do you have 30 seconds to share your experience? [Help us improve CloudFront.](#)

CloudFront > Distributions > E2LTLHC6W1WDFR

E2LTLHC6W1WDFR

General

Origins

Behaviors

Error pages


Geographic restrictions

Invalidations


Tags

Details

Distribution domain name

 d3g7c4ah6f8c9c.cloudfront.net

ARN

 arn:aws:cloudfront:598824656916:distribution/E2LTLHC6W1WDFR

Last modified

September 6, 2022 at 1:04:59 AM UTC

Settings

Description

-

Price class

Use all edge locations (best performance)

Supported HTTP versions

HTTP/2, HTTP/1.1, HTTP/1.0

AWS WAF

-

Alternate domain names

-

Standard logging

Off

Cookie logging

Off

Default root object

-

Edit

✓ NOW task DONE

