

We will upload index.html to s3 bucket and help us to load index.html with cloudfront

The screenshot shows the Amazon S3 console interface. On the left, there's a sidebar with navigation links like 'Amazon S3', 'General purpose buckets', 'Directory buckets', etc. The main area displays an 'Account snapshot' with an update frequency of 'updated every 24 hours'. It shows 9 General purpose buckets listed in a table. The table columns include 'Name', 'AWS Region', 'IAM Access Analyzer', and 'Creation date'. Each bucket entry includes a link to 'View analyzer for [bucket-name]'. The buckets listed are:

Name	AWS Region	IAM Access Analyzer	Creation date
aws-codepipeline-20241122	US East (N. Virginia) us-east-1	View analyzer for us-east-1	November 22, 2024, 01:48:11 (UTC+05:30)
cf-templates--1s049ug1khej-us-east-1	US East (N. Virginia) us-east-1	View analyzer for us-east-1	December 27, 2024, 19:13:52 (UTC+05:30)
cf-templates-11vzkmrrbc99-us-east-1	US East (N. Virginia) us-east-1	View analyzer for us-east-1	December 27, 2024, 19:30:02 (UTC+05:30)
elasticbeanstalk-us-east-1-637423339839	US East (N. Virginia) us-east-1	View analyzer for us-east-1	September 20, 2024, 19:33:23 (UTC+05:30)
govi-aws-bucket	US East (N. Virginia) us-east-1	View analyzer for us-east-1	January 4, 2025, 11:58:05 (UTC+05:30)
linkdine-06102024	Asia Pacific (Mumbai) ap-south-1	View analyzer for ap-south-1	October 6, 2024, 13:10:34 (UTC+05:30)
shaileshgupta-me	US East (N. Virginia) us-east-1	View analyzer for us-east-1	October 10, 2024, 21:25:52 (UTC+05:30)

Create bucket Mention the name

Amazon S3 > Buckets > Create bucket

Create bucket Info

Buckets are containers for data stored in S3.

General configuration

AWS Region
US East (N. Virginia) us-east-1

Bucket type Info

General purpose
Recommended for most use cases and access patterns. General purpose buckets are the original S3 bucket type. They allow a mix of storage classes that redundantly store objects across multiple Availability Zones.

Directory
Recommended for low-latency use cases. These buckets use only the S3 Express One Zone storage class, which provides faster processing of data within a single Availability Zone.

Bucket name Info
cloudfrontawsbuckettest

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

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

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Leave all the setting to default
Click on create bucket

Navigate to bucket

Upload index.html and picture.jpg in s3 bucket
https://github.com/Gopi1892/Devops-Learning-Material/tree/main/AWS/AWS_Cludfront_S3

Amazon S3 > Buckets > cloudfrontawsbuckettest > Upload

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDKs 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, 1.7 MB)

All files and folders in this table will be uploaded.

Name		Folder	Type	Size
<input type="checkbox"/> picture.jpg	-	image/jpeg	1.7 MB	
<input type="checkbox"/> index.html	-	text/html	233.0 B	

Destination [Info](#)

Destination
<s3://cloudfrontawsbuckettest>

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](#)

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Click on upload

Uploading

Total remaining: 2 files: 233.0 B (0.01%)

Estimated time remaining: calculating...

Transfer rate: 0 B/s

[Cancel](#)

Upload: status

After you navigate away from this page, the following information is no longer available.

Summary

Destination	Succeeded	Failed
s3://cloudfrontawsbuckettest	0 files, 1.7 MB (99.99%)	0 files, 0 B (0%)

[Close](#)

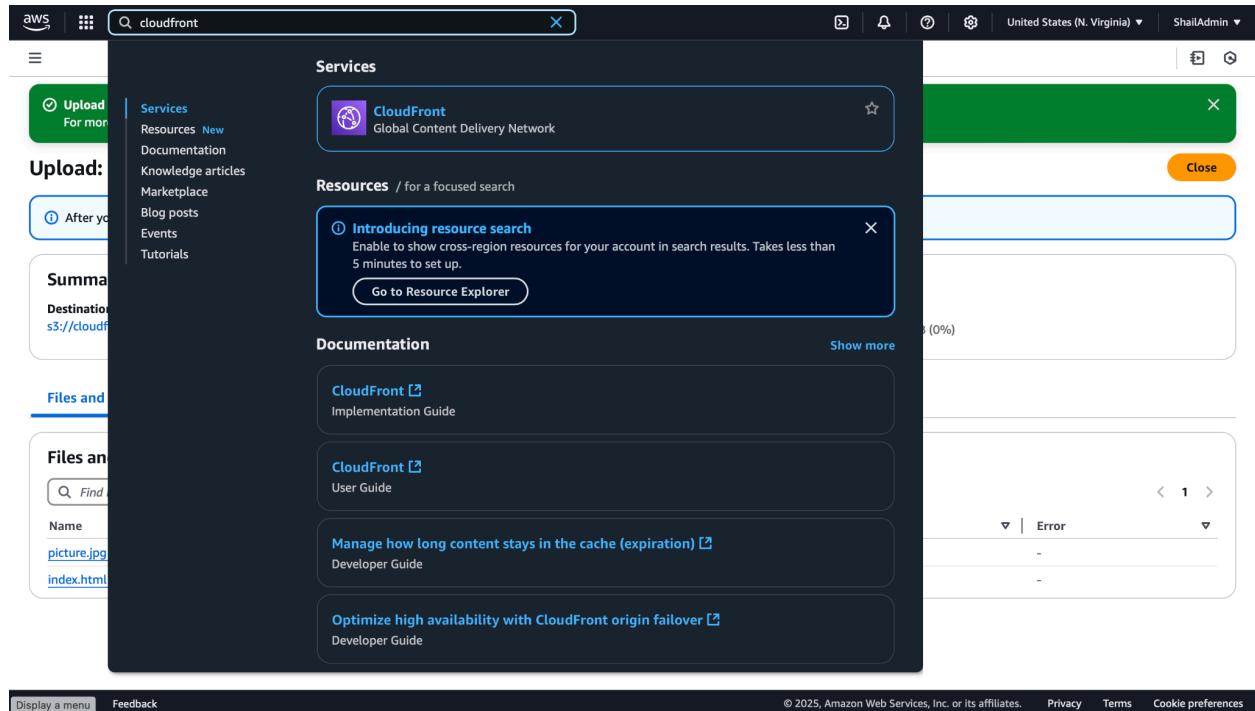
Files and folders (2 total, 1.7 MB)

Name	Folder	Type	Size	Status	Error
picture.jpg	-	image/jpeg	1.7 MB	In progress (100%)	-
index.html	-	text/html	233.0 B	Pending	-

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Note - s3 bucket is not publicly accessible

Lets go to cloudfont



Click on cloudfont

Click on create a cloudfont distribution

Choose origin as the bucket name

Create distribution

Origin

Origin domain

Choose an AWS origin, or enter your origin's domain name. [Learn more](#)



Enter a valid DNS domain name, such as an S3 bucket, HTTP server, or VPC origin ID.

Origin path - optional

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

Name

Enter a name for this origin.

Origin access | [Info](#)

Public

Bucket must allow public access.

Origin access control settings (recommended)

Bucket can restrict access to only CloudFront.

Legacy access identities

Use a CloudFront origin access identity (OAI) to access the S3 bucket.

Add custom header - optional

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

[Add header](#)

Enable Origin Shield

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Select Origin access

Origin access | [Info](#)

Public

Bucket must allow public access.

Origin access control settings (recommended)

Bucket can restrict access to only CloudFront.

Legacy access identities

Use a CloudFront origin access identity (OAI) to access the S3 bucket.

Origin access control

Click on create a new AOC

☰ CloudFront > Distributions > Create

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

Name
Enter a name for this origin.

Origin access | [Info](#)

- Public
Bucket must allow public access.
- Origin access control settings (recommended)
Bucket can restrict access to only CloudFront.
- Legacy access identities
Use a CloudFront origin access identity (OAI) to access the S3 bucket.

Origin access control
Select an existing origin access control (recommended) or create a new control.

[Create new OAC](#)

Add custom header - optional
CloudFront includes this header in all requests that it sends to your origin.

[Add header](#)

Enable Origin Shield
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

Create new OAC

Name
The name must be unique. Valid characters: letters, numbers and most special characters. Use up to 64 characters.

Description - optional
The description can have up to 256 characters.

Signing behavior

- Do not sign requests
- Sign requests (recommended)
 - Do not override authorization header
Do not sign if incoming request has authorization header.

Origin type

The origin type must be the same type as origin domain.

[Cancel](#) [Create](#)

Click on create

Now we need to update s3 bucket policy and
cloudfront will generate the policy

The screenshot shows the 'Settings' step of the CloudFront distribution creation wizard. It includes:

- Web Application Firewall (WAF)**: Shows two options: "Enable security protections" (disabled) and "Do not enable security protections" (selected).
- Anycast static IP list - optional**: Shows a dropdown menu with the message "There are no Anycast static IP lists available".
- Price class**: Shows three options: "Use all edge locations (best performance)" (selected), "Use only North America and Europe", and "Use North America, Europe, Asia, Middle East, and Africa".
- Alternate domain name (CNAME) - optional**: Shows a button to "Add item".

Add default root object

The screenshot shows the 'Add Default Root Object' step of the CloudFront distribution creation wizard. It includes:

- Request certificate**: A link to request a certificate.
- Supported HTTP versions**: Shows "HTTP/2" checked and "HTTP/3" unchecked.
- Default root object - optional**: Shows the value "index.html" in a text input field.
- IPv6**: Shows "On" selected.
- Description - optional**: An empty text input field.
- Standard logging**: Shows "Off" selected.

Keep default everything else
Click on create distribution.

Now we have to create bucket policy

The screenshot shows the AWS CloudFront Distribution configuration page. At the top, there are three notifications: a blue one about the CloudFront Security Dashboard, a green one about successfully creating a new distribution, and a yellow one warning that the S3 bucket policy needs to be updated. Below these, there are sections for Settings, Continuous deployment, and a Create staging distribution button. The Settings section includes fields for Description, Price class (set to 'Use all edge locations (best performance)'), and Supported HTTP versions (set to 'HTTP/2, HTTP/1.1, HTTP/1.0'). The yellow warning message is highlighted.

Click on copy policy

Right click on Go to s3 bucket permission to update policy

CloudFront > Distributions > E79YT2N250CFN

Introducing the CloudFront Security Dashboard
The new security tab is a unified place to configure, manage, and monitor security for your CloudFront distribution. The built-in dashboard gives you visibility into top security trends, allowed and blocked traffic, as well as visibility and controls for bots. CloudFront geographic restrictions are now part of the security dashboard.

Successfully created new distribution.
To get in-depth monitoring information for your distribution's internet traffic, create an Internet Monitor.

The S3 bucket policy needs to be updated
Complete distribution configuration by allowing read access to CloudFront origin access control in your policy statement. Go to S3 bucket

Settings

Description -
Alternate domain names -
Price class: Use all edge locations (best performance)
Supported HTTP versions: HTTP/2, HTTP/1.1, HTTP/1.0

Continuous deployment Info

Create staging distribution

It will take us here

aws Search [Option+S] United States (N. Virginia) ShallAdmin ▾

Amazon S3 > Buckets > cloudfrontawsbuckettest

cloudfrontawsbuckettest Info

Objects Metadata - Preview Properties Permissions Metrics Management Access Points

Permissions overview

Access finding
Access findings are provided by IAM external access analyzers. Learn more about [How IAM analyzer findings work](#). View analyzer for us-east-1

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](#).

Block all public access
On
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](#).

Public access is blocked because Block Public Access settings are turned on for this bucket
To determine which settings are turned on, check your Block Public Access settings for this bucket. Learn more about [using Amazon S3 Block Public Access](#).

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Go to bucket policy

Edit and paste

The screenshot shows the AWS S3 Bucket Policy editor. On the left, there's a sidebar with navigation links like 'Amazon S3', 'General purpose buckets', 'Storage Lens', and 'AWS Marketplace for S3'. The main area has a title 'Policy' and displays the following JSON code:

```
1  {
2   "Version": "2008-10-17",
3   "Id": "PolicyForCloudFrontPrivateContent",
4   "Statement": [
5     {
6       "Sid": "AllowCloudFrontServicePrincipal",
7       "Effect": "Allow",
8       "Principal": {
9         "Service": "cloudfront.amazonaws.com"
10      },
11      "Action": "s3:GetObject",
12      "Resource": "arn:aws:s3:::cloudfrontawsbuckettest/*",
13      "Condition": {
14        "StringEquals": {
15          "AWS:SourceArn": "arn:aws:cloudfront::637423339839:distribution/E79YT2N2S"
16        }
17      }
18    }
19  ]
20 }
```

To the right of the code, there are two sections: 'Edit statement' and 'Select a statement'. The 'Edit statement' section contains a button '+ Add new statement'. The 'Select a statement' section contains a placeholder text 'Select an existing statement in the policy or add a new statement.' and a button '+ Add new statement'.

Click on Save changes

The screenshot shows the AWS S3 console with the path: Amazon S3 > Buckets > cloudfrontawsbuckettest. On the left, there's a sidebar with links like General purpose buckets, Storage Lens, and Feature spotlight. The main content area has tabs for Objects, Metadata - Preview, Properties, Permissions (which is selected), Metrics, Management, and Access Points. A green success message at the top says "Successfully edited bucket policy." Below it, the bucket name "cloudfrontawsbuckettest" is shown with an "Info" link. The "Permissions" section includes a "Permissions overview" box with an "Access finding" sub-section and a "Block public access (bucket settings)" box where "Block all public access" is set to "On". There's also a "Bucket policy" section with an "Edit" button. At the bottom, there are links for CloudShell, Feedback, and a footer with copyright information and links for Privacy, Terms, and Cookie preferences.

Check status in distribution

The screenshot shows the AWS CloudFront console with the path: CloudFront > Distributions. It displays a table of distributions. The table has columns for ID, Description, Type, Domain name, Alternate dom..., Origins, Status, and Last modified. One distribution is listed: E79YT2N250CFN, which is Production type, has a domain name of d3cw9j9yen9lkd..., and is associated with the origin "cloudfrontawsbuckette". The status is "Enabled". The last modified date is January 12, 2025. At the top right, there are buttons for Enable, Disable, Delete, and Create distribution. There's also a search bar and navigation controls.

Click on distribution

ⓘ Introducing the CloudFront Security Dashboard

The new security tab is a unified place to configure, manage, and monitor security for your CloudFront distribution. The built-in dashboard gives you visibility into top security trends, allowed and blocked traffic, as well as visibility and controls for bots. CloudFront geographic restrictions are now part of the security dashboard.

E79YT2N2S0CFN

[View metrics](#)

[General](#) | [Security](#) | [Origins](#) | [Behaviors](#) | [Error pages](#) | [Invalidations](#) | [Tags](#) | [Logging](#)

Details

Distribution domain name
[d3cw9j9yen9kd.cloudfront.net](#)

ARN
[arn:aws:cloudfront::637423339839:distribution/E79YT2N2S0CFN](#)

Last modified
January 12, 2025 at 3:09:16 AM UTC

Settings

Description

-

Price class

Use all edge locations (best performance)

Supported HTTP versions

HTTP/2, HTTP/1.1, HTTP/1.0

Alternate domain names

-

Standard logging

Off

Cookie logging

Off

Default root object

index.html

[Edit](#)

Continuous deployment [Info](#)

Copy distribution domain name and copy in new tab



Apple

iCloud

Google

Facebook

Twitter

LinkedIn

The Weather Channel

NDTV

PT registration

CodeGPT

Hello world!

Need help with your puzzles? I have a picture for you!

