

# AWS CloudFront

It is a CDN (content Delivery Network) service provider by AWS which provides you the content (websites, APIs, web assets, videos)

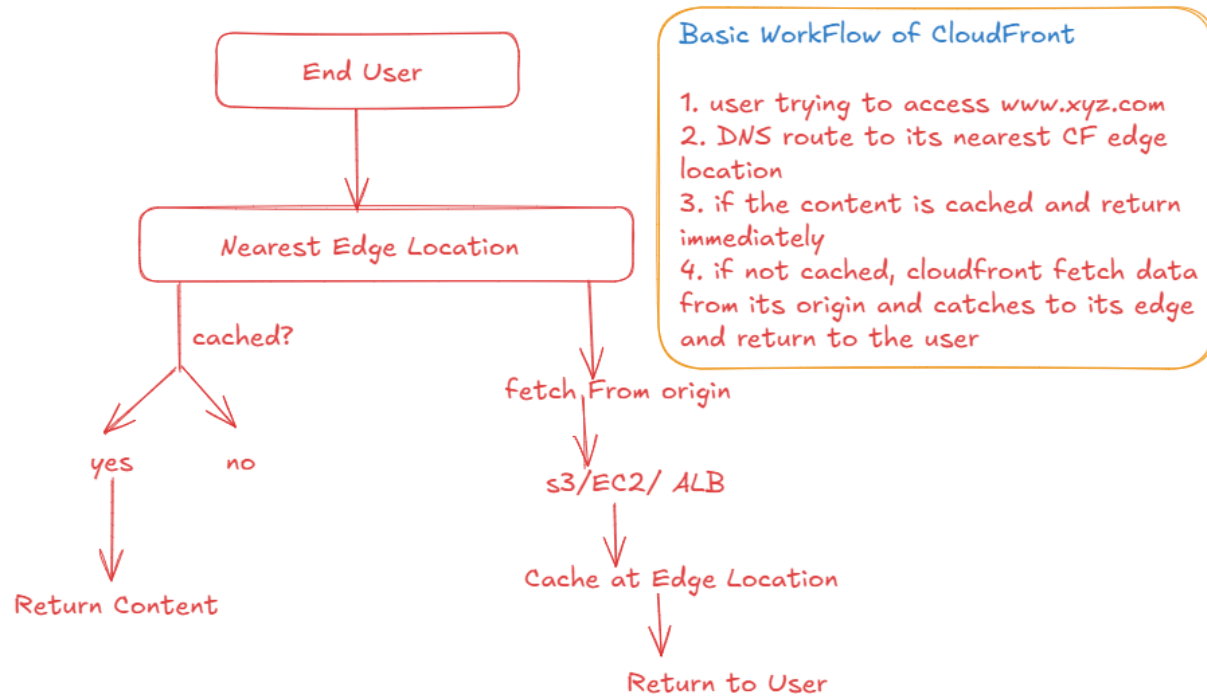
High transfer speed  
low latency

## Key Features:

1. Global Edge Network:
2. Content Catching:
  - a. Reducing load on original server
3. Origin Support
  - a. get data from S3 bucket
  - b. EC2 Instances
  - c. load balancer
  - d. https support
  - e. Domain supports

## Use Cases:

Websites  
APIs  
Software Distribution  
Secure content Delivered  
Video streaming



Let's Try to SetUp manual CloudFront and S3 Bucket

Create S3 Bucket:

bucket: username-cf-1001

upload `index.html`, `script.js` and `style.css` to your bucket (<https://github.com/sonam-niit/PhoneBookProject>)

copy content from this Github Repo

Set permission.

click on Permission --> Edit Bucket policy --> click Policy Generator

## Step 1: Select Policy Type

A Policy is a container for permissions. The different types of polici VPC Endpoint Policy, and an SQS Queue Policy.

Select Type of Policy

## Step 2: Add Statement(s)

A statement is the formal description of a single permission. See [a description of elements](#) that you can use in s

Effect

☒ Allow ☐ Deny

Principal

Use a comma to separate multiple values.

AWS Service

Amazon S3

☐ A

Use multiple statements to add permissions for more than one service.

Actions

1 Action(s) Selected

☐ GetMultiRegionAccessPoint  
☐ GetMultiRegionAccessPointPolicy  
☐ GetMultiRegionAccessPointPolicyStatus  
☐ GetMultiRegionAccessPointRoutes  
☒ GetObject  
☐ GetObjectAcl

☐ All Actions ('\*')

Amazon Resource Name (ARN)

{BucketName}/{KeyName}.

id. You must enter a valid A

Amazon Resource Name (ARN)

ARN should follow the following format: arn:aws:s3:::  
Use a comma to separate multiple values.

Add Conditions (Optional)

Add Statement

ARN number and then /\* to give access permission to all objects of your bucket.

Click on Add Statement.

Verify Statement and then click on Generate Policy:

You added the following statements. Click the button below to Generate a policy.

| Principal(s) | Effect | Action         | Resource                    | Conditions |
|--------------|--------|----------------|-----------------------------|------------|
| • *          | Allow  | • s3:GetObject | arn:aws:s3:::sonam-cf-101/* | None       |

### Step 3: Generate Policy

A *policy* is a document (written in the [Access Policy Language](#)) that acts as a container for one or more statements.

[Generate Policy](#)

[Start Over](#)

### Policy JSON Document

Click below to edit. To save the policy, copy the text below to a text editor. Changes made below will **not be reflected in the policy generator tool**.

```
{
  "Id": "Policy1743849126091",
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "Stmt1743848688601",
      "Action": [
        "s3:GetObject"
      ],
      "Effect": "Allow",
      "Resource": "arn:aws:s3:::sonam-cf-101/*",
      "Principal": "*"
    }
  ]
}
```

Copy it and save it in your bucket policy.

**Bucket policy**

EditDelete

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](#)

```
{
  "Version": "2012-10-17",
  "Id": "Policy1743848690082",
  "Statement": [
    {
      "Sid": "Stmnt1743848688601",
      "Effect": "Allow",
      "Principal": "*",
      "Action": "s3:GetObject",
      "Resource": "arn:aws:s3:::sonam-cf-101/*"
    }
  ]
}
```

Copy

Now

**sonam-cf-101** Info

Objects

Metadata

**Properties**

**Bucket overview**

**Static website hosting**

Edit

Use this bucket to host a website or redirect requests. [Learn more](#)

**We recommend using AWS Amplify Hosting for static website hosting**

Deploy a fast, secure, and reliable website quickly with AWS Amplify Hosting. Learn more about [Amplify Hosting](#) or [View your existing Amplify apps](#)

Create Amplify app

**S3 static website hosting**

click on edit..



## 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](#) 

 For your customers to access content at the website endpoint, you must configure Block Public Access settings for the bucket. For more information, see [Block Public Access](#).

### Index document

Specify the home or default page of the website.

index.html

Skip optional Fields and then save Changes.

Check the Endpoint

### S3 static website hosting



Enabled

### Hosting type

Bucket hosting

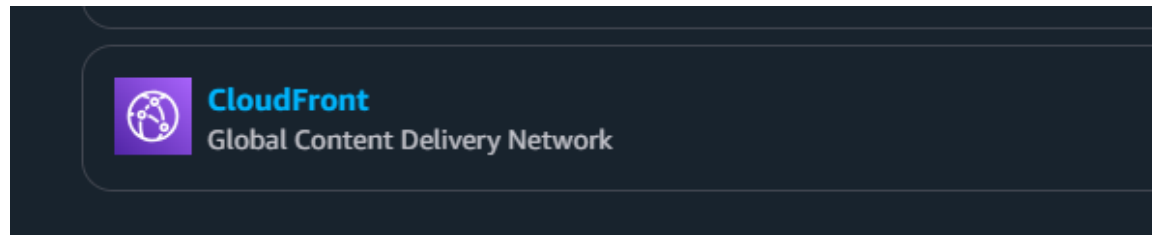
### Bucket website endpoint

When you configure your bucket as a static website, the website is available at the AWS

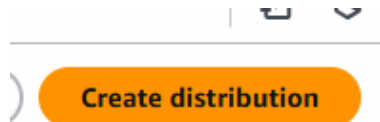
 <http://sonam-cf-101.s3-website-us-east-1.amazonaws.com> 

Setting up CloudFront Distribution:

Search For



Click on



## Create distribution

### Origin

#### Origin domain

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

sonam-cf-101.s3-website-us-east-1.amazonaws.com

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

#### Protocol

- ☒ HTTP only
- ☐ HTTPS only
- ☐ Match viewer

#### HTTP port

Enter your origin's HTTP port. The default is port 80.

80

Keep Below Configuration as it is

**Origin path - optional**

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.

sonam-cf-101.s3-website-us-east-1.amazonaws.com

**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

## 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

Recommended for S3

Policy with caching enabled. Supports Gzip and Brotli compression.

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

#### Origin request policy - optional

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

Select origin policy

[Create origin request policy](#)

Skip optional Values.

### Web Application Firewall (WAF) [Info](#)

☐ Enable security protections  
Keep your application secure from the most common web threats and security vulnerabilities using AWS WAF. Blocked requests are stopped before they reach your web servers.

☒ Do not enable security protections  
Select this option if your application does not need security protections from AWS WAF.

## Settings

### Anycast static IP list - optional [Info](#)

Deliver traffic from a small set of IP addresses

*There are no Anycast static IP lists available*

#### Create an Anycast static IP list

There are no Anycast static IP lists available

### 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

### Alternate domain name (CNAME) - optional

Add the custom domain names that you use in URLs for the files served by this distribution.

[Add item](#)

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

other values you can use as its provided.

click on create Distribution.

| ID            | Description | Type       | Domain name      | Alternate do... | Origins             | Status  | Last modified        |
|---------------|-------------|------------|------------------|-----------------|---------------------|---------|----------------------|
| E79R35PDANS00 | -           | Production | duo4tto0cr1nh... | -               | sonam-cf-101.s3-wet | Enabled | April 5, 2025 at ... |

Wait until its Deployed

**E79R35PDANS00**

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

**Details**

**Distribution domain name**  
duo4tto0cr1nh.cloudfront.net

**ARN**  
arn:aws:cloudfront::277707128105:distribution/E79R35PDANS00

**Last modified**  
April 5, 2025 at 10:50:00 AM UTC

Check the Domain name:

you can see the output

duo4tto0cr1nh.cloudfront.net

# PhoneBook

| Id | Name | Number | Operations |
|----|------|--------|------------|
|----|------|--------|------------|

## Add Contact

Save Contact

## View/Update

Update Contact

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If We want to automate the above process we can use Terraform Project.

Let's create Project Structure and creating Resources.