

# AWS CLI

>> AWS CLI (Command Line Interface) is a tool that lets the user manage the AWS services directly from the terminal using commands, instead of using GUI in AWS Management Console.

>> It is a text-based tool that connect the AWS account & lets the user control the AWS resources using commands

>> By default, it is not installed. Steps to download & install:

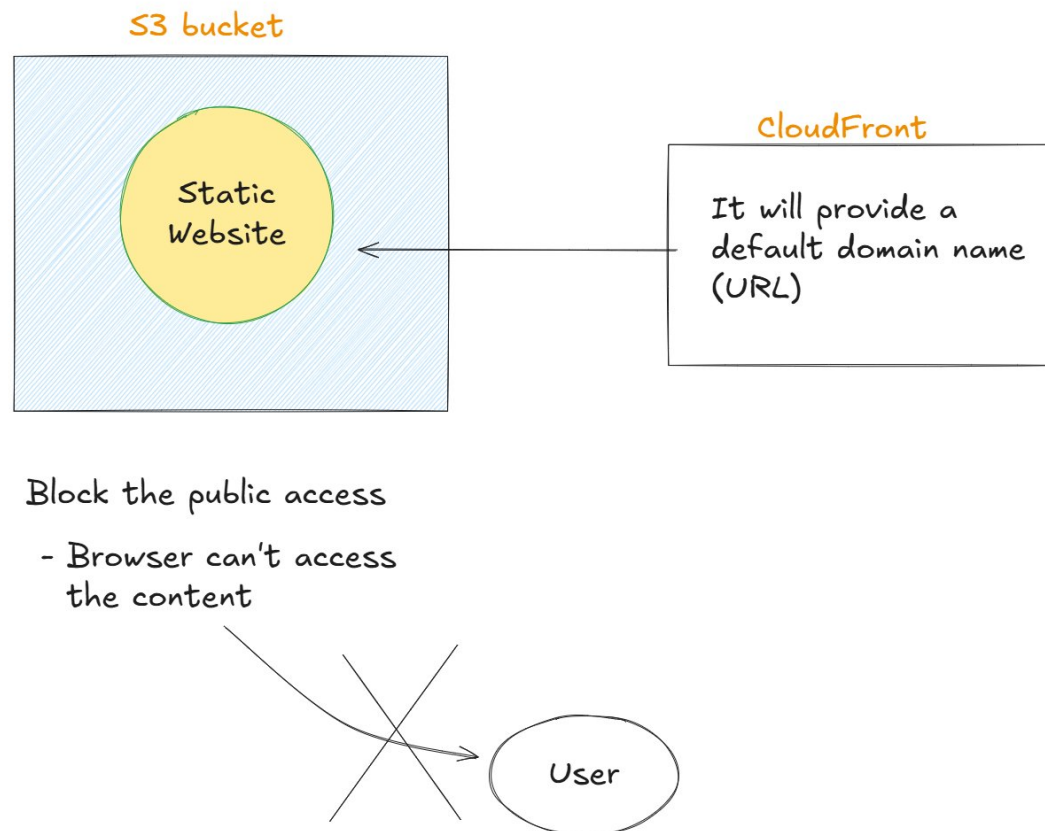
- > Search for 'AWS cli install Windows/Mac'
- > Click on the 1st link 'Install AWS CLI'.
- > Scroll down and select the OS and download the installer and do the setup.

>> After installing, you have to configure it:

- > Open command prompt, and type the cmd: 'aws configure'
- > Provide the AWS Access Key ID:
  - Click on the username on AWS Management Console and select 'Security Credentials'.
  - Scroll and click on 'Create Access Key'
  - In 'Use Case', select 'Command Line Interface' and click on 'Next' & click on 'Create Access Key'.
  - Access key will be generated. Copy it and paste in the required prompt & press Enter.
- > Provide the AWS Secret Access Key ID:
- > Provide the region you wanna work with
- > Provide the 'Default Output Format' as 'json'.
  - list all the buckets - `aws s3 ls`
  - create, start, stop & terminate the instances
  - upload files to S3 bucket, delete the files from bucket
  - create, deploy & test Lambda functions.
  - create users using IAM.

# CLOUD FRONT

- >> AWS CloudFront is fast & secure CDN services which is designed to deliver data (web content) with low latency & high transfer speed to the users worldwide.
- >> Faster content Delivery: It caches the content at the nearest edge location, so that users get the data from the nearest CDN server, instead of waiting for a response from the origin (main server).
- >> Scalability: Handles sudden traffic spiker w/o having to manage the main server.



## Cloudfront distribution

- > A CloudFront distribution is the core configuration that connects your content to the Amazon CloudFront global network.
- > It's the set of instructions that tells CloudFront where to find your original content, what to do with it, and how to deliver it to your users.
- > Think of it as a blueprint for your content's journey across the internet.
- > When you create a distribution, you're essentially setting up a new content delivery service with a unique name (a CloudFront domain name, like d1234.cloudfront.net). You then point your website or application to this new domain name.

## Static web hosting using S3 and cloudfront

- 1) Create a S3 bucket. While creating, under "Block Public Access settings for this bucket" option, tick Block all public access option and then create bucket.
- 2) Upload the files and folders related to static website and follow the steps of static web hosting.
- 3) In a new tab open AWS cloudfront and click on "Create a CloudFront distribution" button
- 4) Give the distribution name and description and under Distribution type select single website or app and click on next.
- 5) Under origin type, select Amazon S3 and click on browse S3 to choose the bucket which you have created. Then scroll down towards the end and click on next.
- 6) Under Web Application Firewall (WAF) select "Do not enable security protections" and click on next.
- 7) Scroll down and click on create distribution.
- 8) A new page is loaded and in this page we have an option called as origins. Click on origins, select the origin and click on edit.
- 9) If you scroll down you will get "You must allow access to CloudFront using this policy statement. Learn more about giving CloudFront permission to access the S3 bucket" policy message. Copy that policy and go to S3 bucket permissions select bucket policy click on edit and paste the policy and then click on save changes.
- 10) Come back to CloudFront, Under General you have settings click on edit. If you scroll down you will get "Default root object - optional" option, write index.html and click on save changes.
- 11) Under General, you have "Distribution domain name" copy that domain name and paste it in the search bar of the browser.