

## Experiment 8 :

Set up a CloudFront distribution to facilitate the seamless uploading of static web content from an S3 bucket

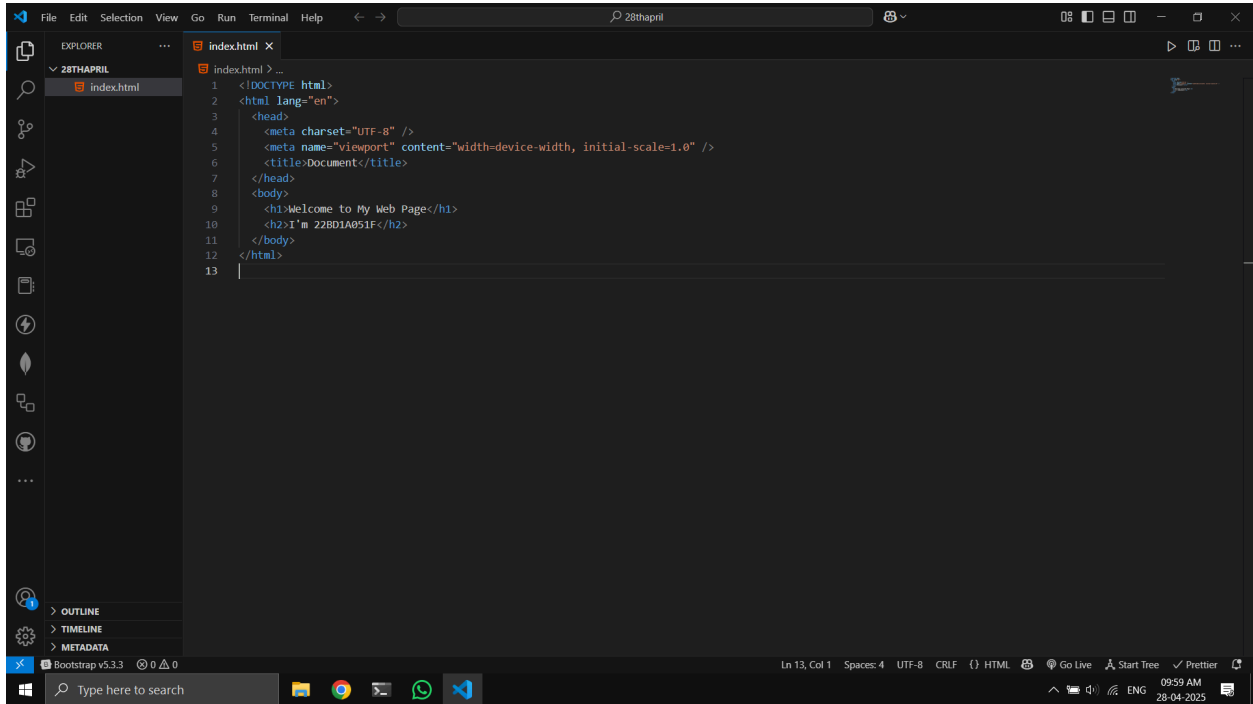
### Create S3 Bucket

The screenshot shows the AWS Management Console for the 'us-east-1' region. The 'Amazon S3' section is active, and the 'Buckets' page is displayed. A sidebar on the left lists various S3 features like 'General purpose buckets', 'Directory buckets', and 'Storage Lens'. The main content area shows an 'Account snapshot' and a list of 'General purpose buckets'. A 'Create bucket' button is visible in the top right of the bucket list. Below the list, a table shows the details of the bucket 'cloudfront-bucket-1f', including its name, AWS Region (US East (N. Virginia)), IAM Access Analyzer, and creation date (April 28, 2025, 10:07:28 UTC+05:30).

### Upload index.html file

The screenshot shows the AWS Management Console for the 'us-east-1' region, specifically the 'cloudfront-bucket-1f' bucket. The 'Objects' tab is selected, showing a list of objects. A table lists the object 'index.html' with its type (html), last modified date (April 28, 2025, 09:56:12 UTC+05:30), size (289.0 B), and storage class (Standard). An 'Upload' button is visible in the top right of the object list. Below the list, a table shows the details of the object 'index.html', including its name, type, last modified date, size, and storage class.

## Index.html file

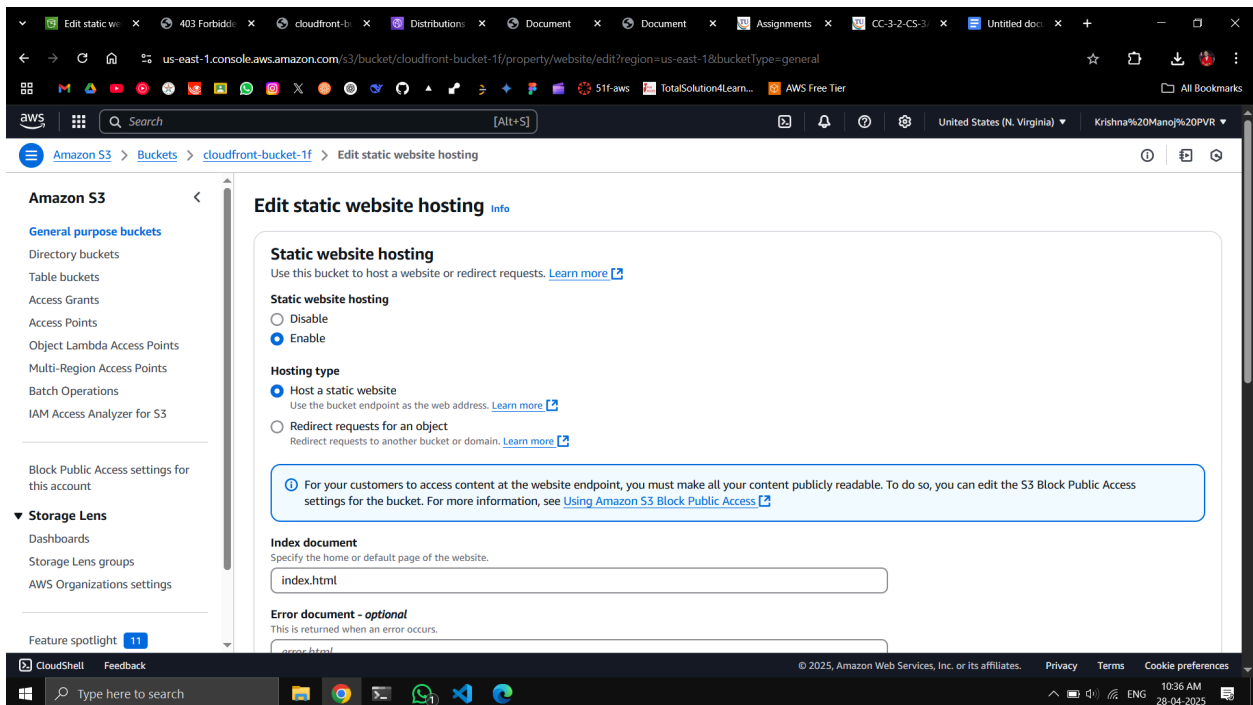


The screenshot shows a Visual Studio Code editor window with a dark theme. The Explorer sidebar on the left shows a file named 'index.html' under a folder named '28THAPRIL'. The main editor area displays the content of 'index.html', which is an HTML document. The code is as follows:

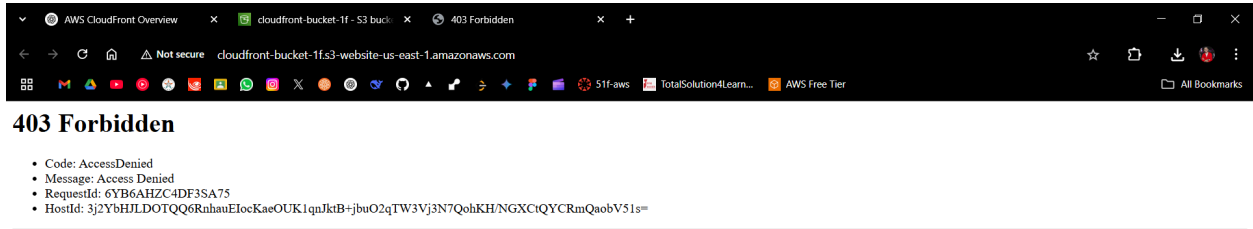
```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8" />
5   <meta name="viewport" content="width=device-width, initial-scale=1.0" />
6   <title>Document</title>
7 </head>
8 <body>
9   <h1>Welcome to My Web Page</h1>
10  <h2>I'm 22BD1A051F</h2>
11 </body>
12 </html>
13
```

The status bar at the bottom indicates the cursor is at line 13, column 1, with 4 spaces. The encoding is UTF-8, and the line endings are CRLF. The file is an HTML document. The system tray shows the date and time as 09:59 AM on 28-04-2025.

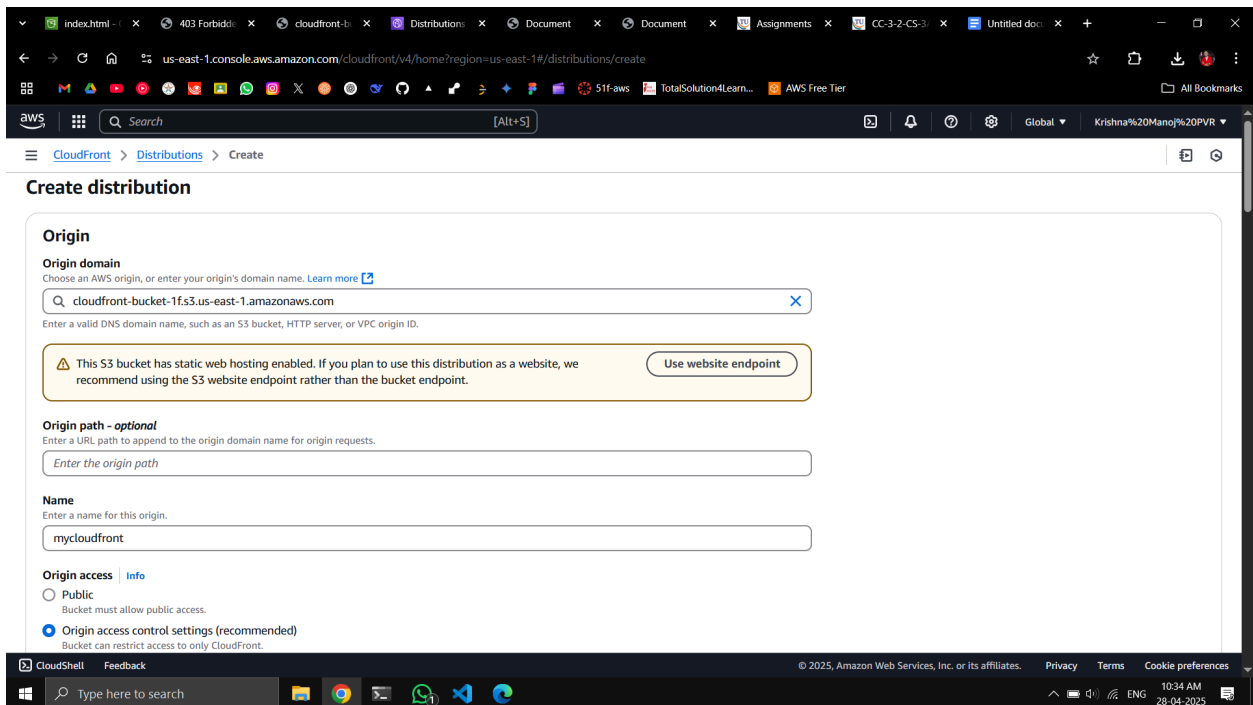
## Enable static site hosting in s3 bucket properties



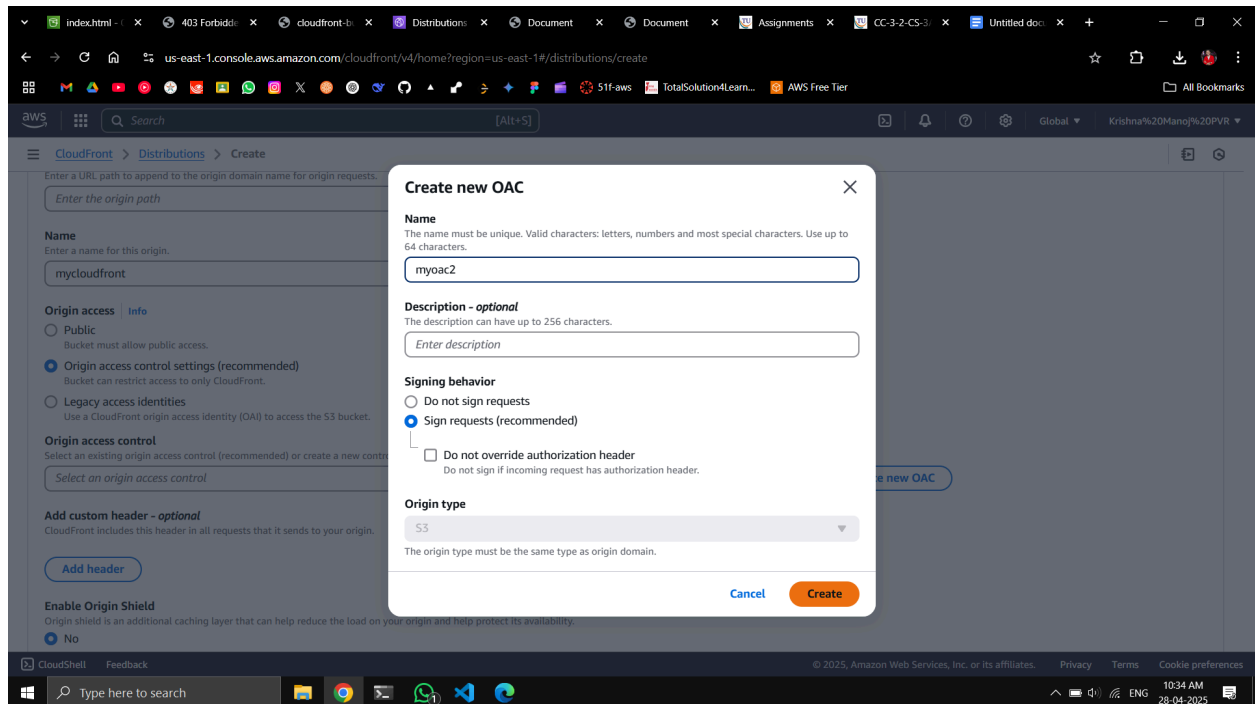
Trying to access through s3 bucket's url



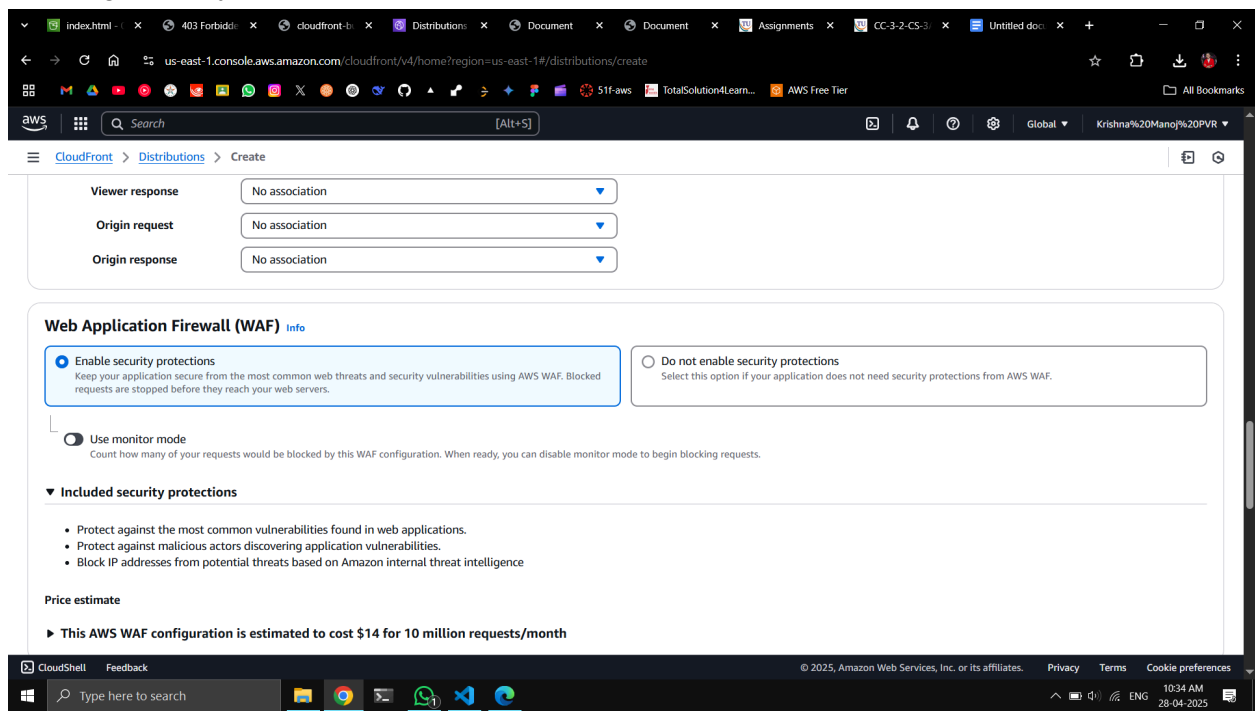
Creating CloudFront Distribution



## Creating Origin Access Control and attaching



## Enabling Security Protections in WAF



## Specifying default root object as “index.html”

The screenshot shows the 'Create' page for a new CloudFront distribution in the AWS console. The page is titled 'CloudFront > Distributions > Create'. It includes a 'Choose certificate' dropdown, a 'Request certificate' link, and a section for 'Supported HTTP versions' with checkboxes for 'HTTP/2' (checked) and 'HTTP/3'. Below this is the 'Default root object - optional' section, which contains a text input field with 'index.html'. There are also sections for 'IPv6' (with 'On' selected) and 'Description - optional'. At the bottom, there are sections for 'Standard logging' and 'Log delivery'. The page is part of a browser window with multiple tabs open, including 'index.html', '403 Forbidden', 'cloudfront-b...', 'Distributions', 'Document', 'Assignments', 'CC-3.2-CS-3', 'Untitled doc', and 'AWS Free Tier'. The bottom of the browser window shows the Windows taskbar with the search bar and several application icons.

## CloudFront Distro Created

The screenshot shows the 'Details' page for a newly created CloudFront distribution named 'EYPB2Z2APQE2X'. The page is titled 'CloudFront > Distributions > EYPB2Z2APQE2X'. It features a left-hand navigation menu with sections like 'Distributions', 'Telemetry', 'Reports & analytics', and 'Security'. The main content area has tabs for 'General', 'Security', 'Origins', 'Behaviors', 'Error pages', 'Invalidations', 'Tags', and 'Logging'. The 'General' tab is active, showing 'Details' and 'Settings'. The 'Details' section includes 'Distribution domain name' (dtqmx3hwdvte.cloudfront.net), 'ARN' (arn:aws:cloudfront:564750642170:distribution/EYPB2Z2APQE2X), and 'Last modified' (Deploying). The 'Settings' section includes '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), and 'Default root object' (index.html). There is an 'Edit' button next to the 'Settings' section. At the bottom, there is a 'Continuous deployment' section. The page is part of a browser window with multiple tabs open, including 'cloudfront-bucket-1f-53 buck...', 'Distributions [CloudFront | Glo...', 'AWS Cloudfront Overview', and 'Document'. The bottom of the browser window shows the Windows taskbar with the search bar and several application icons.

## Updating s3 bucket's policy

The screenshot shows the AWS Management Console interface for editing the policy of the 'cloudfront-bucket-1f' S3 bucket. The left sidebar contains navigation options under 'Amazon S3' and 'Storage Lens'. The main content area is titled 'Bucket policy' and includes a 'Policy ARN' field with the value 'arn:aws:s3:::cloudfront-bucket-1f'. Below this, the 'Policy' section displays a JSON policy document. The policy allows the 'cloudfront.amazonaws.com' service to perform the 's3:GetObject' action on the bucket and its contents, with a condition that the source ARN must be 'arn:aws:cloudfront::564750642170:distribution/EYPB222APQE2X'. On the right side of the policy editor, there are buttons for 'Policy examples', 'Policy generator', and 'Edit statement'. Below the 'Edit statement' button, there is a 'Select a statement' section with a prompt to 'Select an existing statement in the policy or add a new statement.' and an 'Add new statement' button.

```
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:::cloudfront-bucket-1f/*",
13      "Condition": {
14        "StringEquals": {
15          "AWS:SourceArn": "arn:aws:cloudfront::564750642170:distribution/EYPB222APQE2X"
16        }
17      }
18    ]
19 }
```

## Accessing static site (index.html) through CloudFront domain

The screenshot shows a web browser window displaying a static website. The address bar shows the URL 'dtgmxe3hwdvte.cloudfront.net'. The page content consists of a heading 'Welcome to My Web Page' and a paragraph 'I'm 22BD1A051F'. The browser's taskbar at the bottom shows various application icons and the system clock indicating 10:42 AM on 28-04-2025.

Welcome to My Web Page

I'm 22BD1A051F

The screenshot shows the Windows taskbar at the bottom of the screen. It includes the Start button, a search bar with the text 'Type here to search', and several application icons. The system tray on the right shows the date and time as 10:42 AM on 28-04-2025, along with network and volume icons.