

Lesson 05 Demo 09

Creating Cache Configuration and Invalidation

Objective: To configure CloudFront distributions and perform cache invalidation to ensure timely updates of content served through Amazon CloudFront

Tools required: AWS workspace

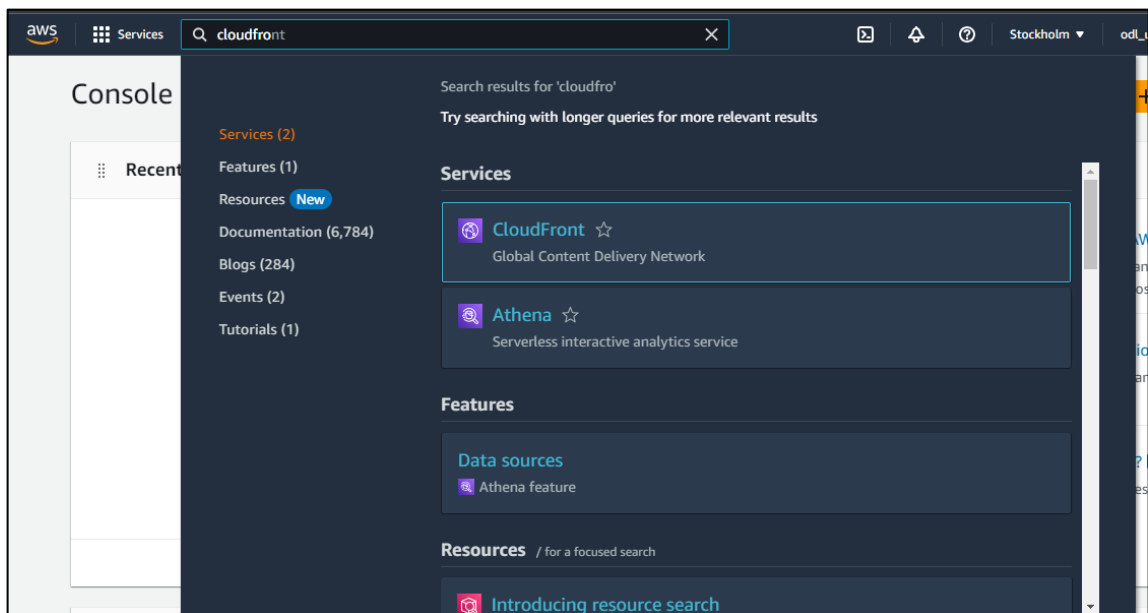
Prerequisites: Create an S3 bucket and have a text file uploaded

Steps to be followed:

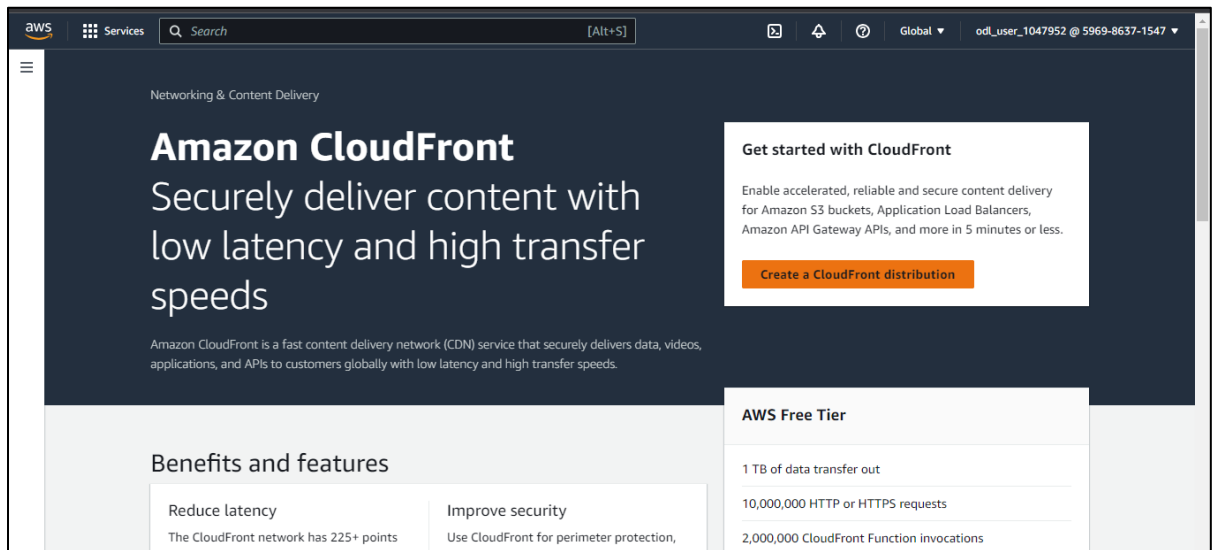
1. Create Distributions
2. Create Invalidation

Step 1: Create Distributions

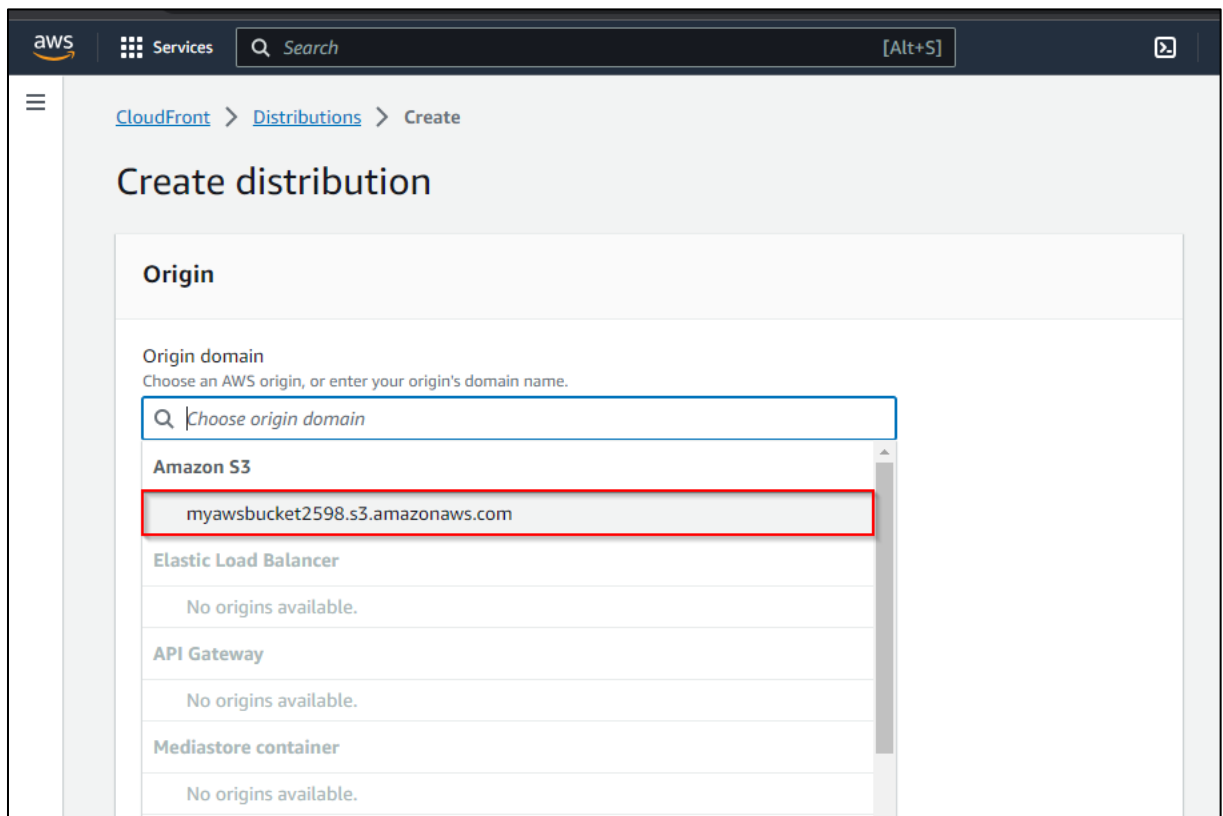
1.1 Navigate to the AWS Management Console and select **CloudFront**



1.2 Click on the **Create a CloudFront distribution** button



1.3 Choose the **S3 bucket** you have previously created as the origin domain



Please refer to the previous demos to know how to create an S3 bucket.

1.4 Select **Do not enable security protections** for simplicity

The screenshot shows the AWS WAF console. Under the 'Web Application Firewall (WAF)' section, there are two radio button options. The first option is 'Enable security protections' with a description: '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.' The second option is 'Do not enable security protections' with a description: 'Select this option if your application does not need security protections from AWS WAF.' This second option is selected (indicated by a blue dot) and is highlighted with a red rectangular box.

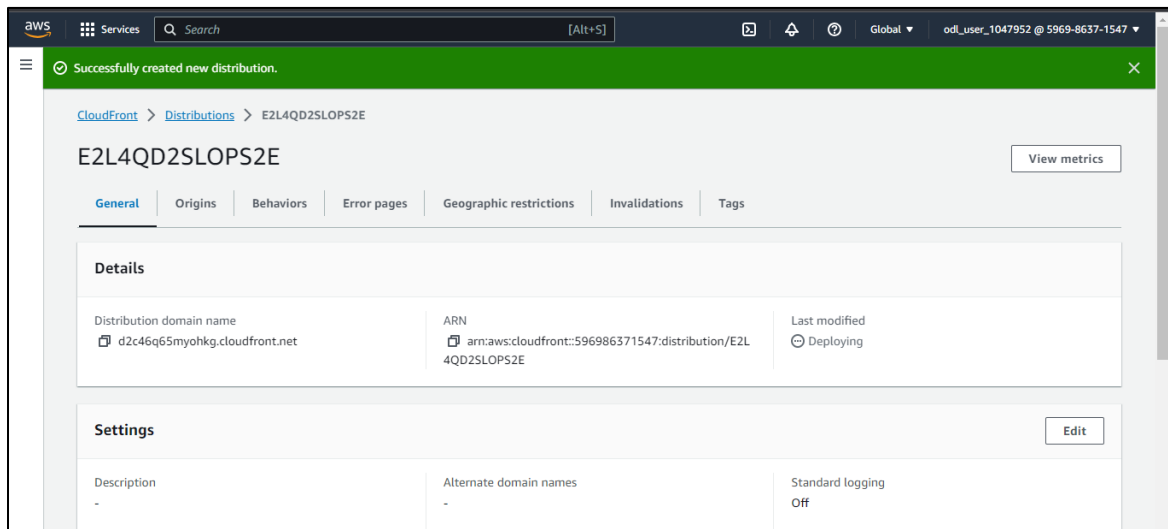
1.5 Choose the default settings and click on **Create distribution**

The screenshot shows the AWS CloudFront console during the 'Create distribution' process. The settings are as follows:

- Supported HTTP versions:** 'Add support for additional HTTP versions. HTTP/1.0 and HTTP/1.1 are supported by default.' The 'HTTP/2' checkbox is checked, and the 'HTTP/3' checkbox is unchecked.
- Default root object - optional:** A text input field for the object (file name) to return when a viewer requests the root URL (/) instead of a specific object. It is currently empty.
- Standard logging:** 'Get logs of viewer requests delivered to an Amazon S3 bucket.' The 'Off' radio button is selected, and the 'On' radio button is unselected.
- IPv6:** The 'On' radio button is selected, and the 'Off' radio button is unselected.
- Description - optional:** A text input field for the distribution description. It is currently empty.

 At the bottom right, there are two buttons: 'Cancel' and 'Create distribution' (which is highlighted in orange).

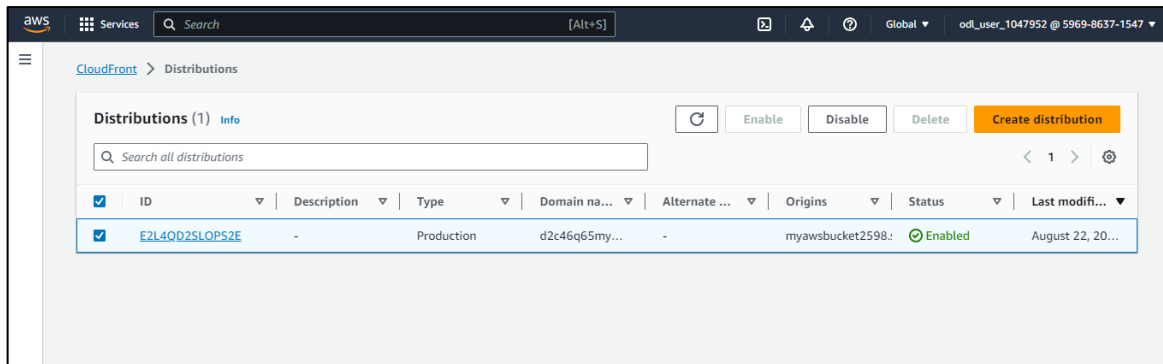
Refer to the previous demos for how to create an S3 bucket.



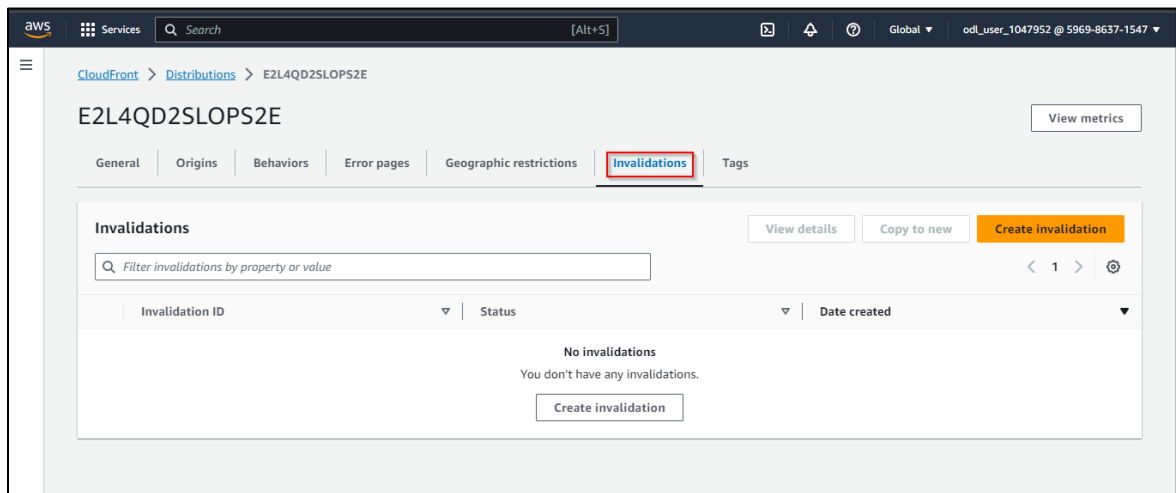
CloudFront distribution has been successfully created.

Step 2: Create Invalidation

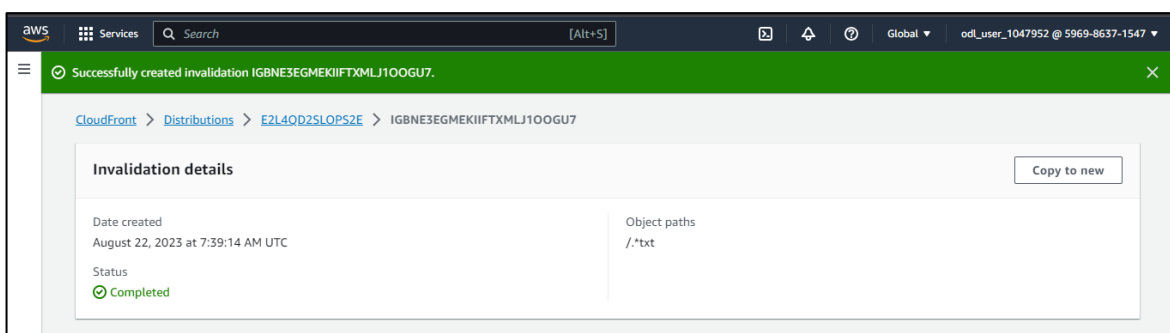
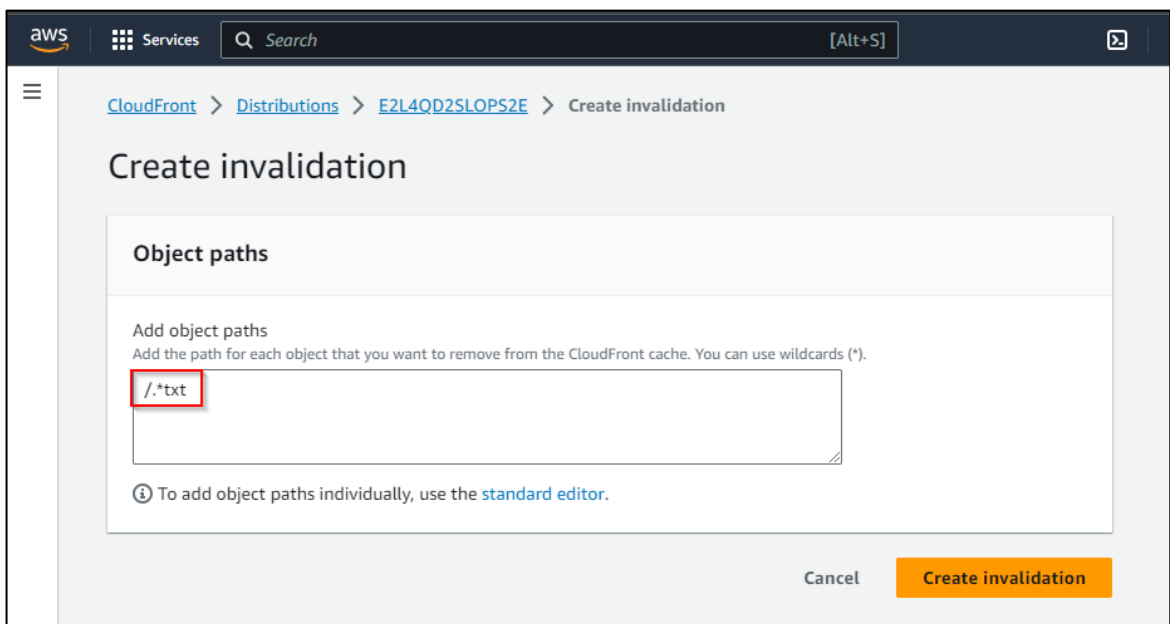
2.1 Select the CloudFront distribution that you had created



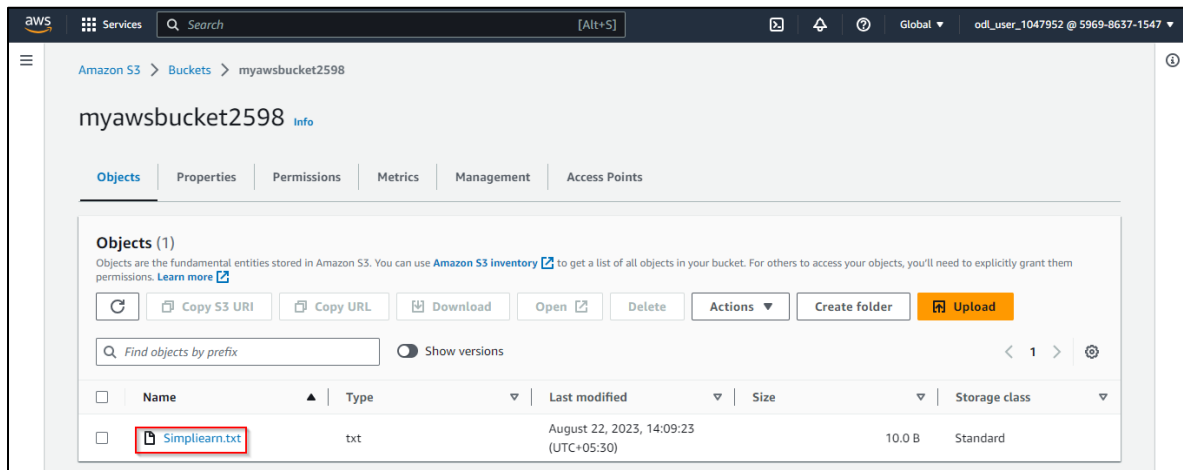
2.2 Navigate to **Invalidation** and then click on **Create invalidation**



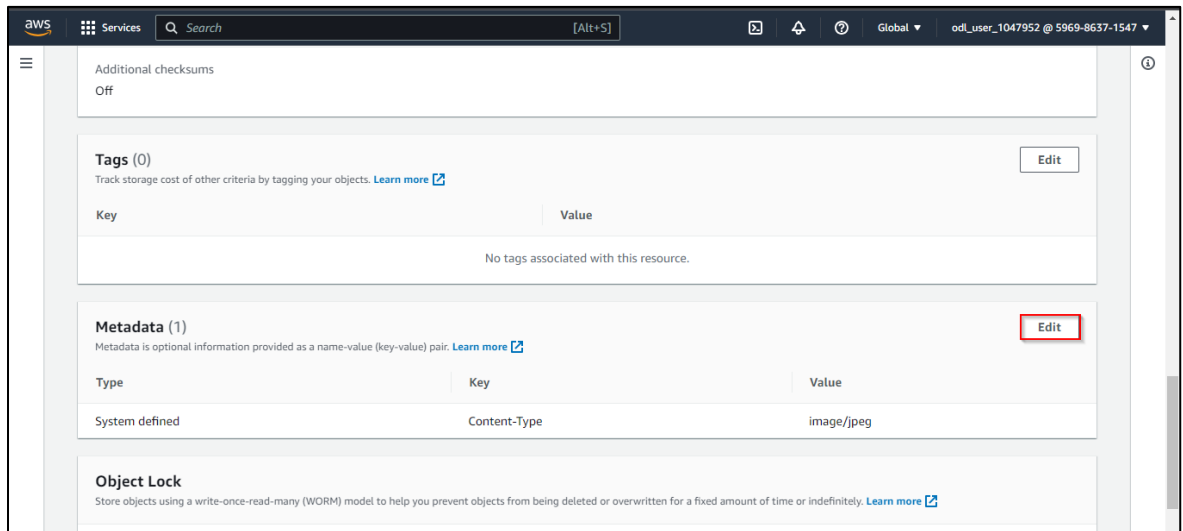
2.3 Enter **/*.*txt** under **Object paths**, and click on **Create invalidation**



2.4 Upload any .txt file to your S3 bucket by clicking the **Upload** button



2.5 Under the **properties**, select **Edit** in the Metadata section



2.6 Click on **Add metadata**

The screenshot shows the AWS S3 console interface. At the top, there's a navigation bar with the AWS logo, 'Services' menu, and a search bar. Below this, a warning message is displayed. The main section is titled 'Metadata' with a subtitle 'Metadata is optional information provided as a name-value (key-value) pair.' Below this, there are three input fields: 'Type' (set to 'System defined'), 'Key' (set to 'Content-Type'), and 'Value' (set to 'image/jpeg'). A red box highlights the 'Add metadata' button at the bottom left of the form.

2.7 Choose **Type** as **System defined**, in the **Key** section select **Cache-Control**, and enter the **Value** as **max-age=300**

This screenshot shows the same AWS S3 console interface as the previous one, but with an additional metadata entry added. The first entry remains 'System defined', 'Content-Type', 'image/jpeg'. The second entry has 'Type' set to 'System defined', 'Key' set to 'Cache-Control', and 'Value' set to 'max-age=300'. Red boxes highlight these three fields for the second entry. The 'Add metadata' button is still visible at the bottom left.

2.8 Click on **Save changes**

Metadata

Metadata is optional information provided as a name-value (key-value) pair. [Learn more](#)

Type

System defined

Key

Content-Type

Value

image/jpeg

Remove

Type

System defined

Key

Cache-Control

Value

max-age=300

Remove

Add metadata

Specified objects

Find objects by name

< 1 >

Name	Type	Last modified	Size
1.jpg	jpg	August 22, 2023, 13:48:19 (UTC+05:30)	7.1 KB

Cancel

Save changes

2.9 Navigate back to **CloudFront** distribution and copy the **Distribution domain name**

CloudFront

Distributions

Policies

Functions

What's new

Telemetry

Monitoring

Alarms

Logs

Reports & analytics

Cache statistics

Popular objects

Top referers

Usage

Viewers

Security

CloudFront > Distributions > E2L4QD2SLOPS2E

E2L4QD2SLOPS2E

View metrics

General

Origins

Behaviors

Error pages

Geographic restrictions

Invalidations

Tags

Details

Distribution domain name

d2c46q65myohkg.cloudfront.net

ARN

arn:aws:cloudfront::596986371547:distribution/E2L4QD2SLOPS2E

Last modified

August 22, 2023 at 7:23:27 AM UTC

Settings

Description

-

Alternate domain names

-

Standard logging

Off

Price class

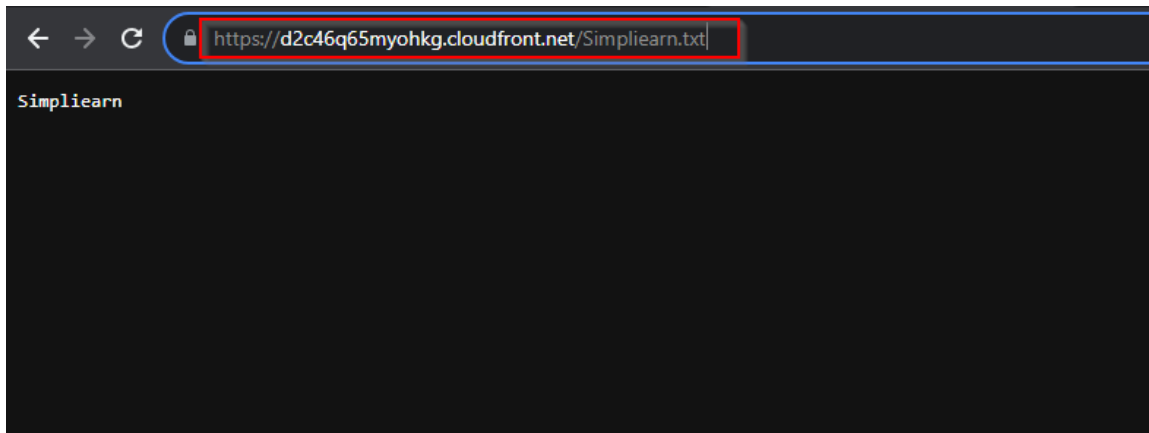
Use all edge locations (best performance)

Cookie logging

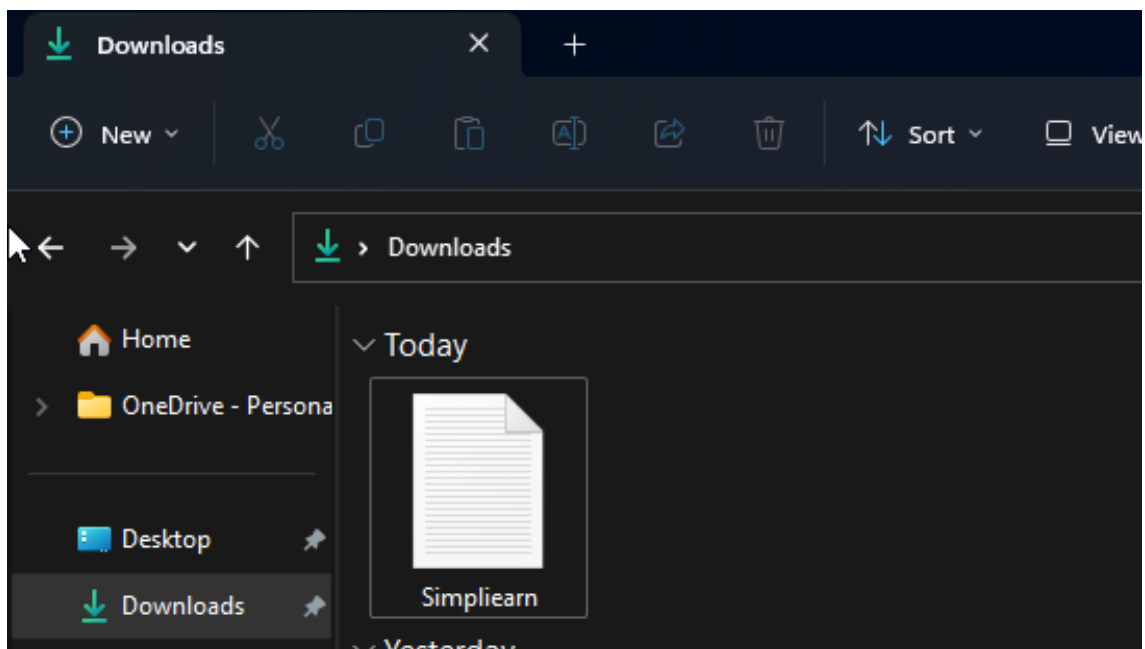
Off

Edit

2.10 Open a browser, paste the distribution domain name, add **/your-text-file-name**, and then press enter

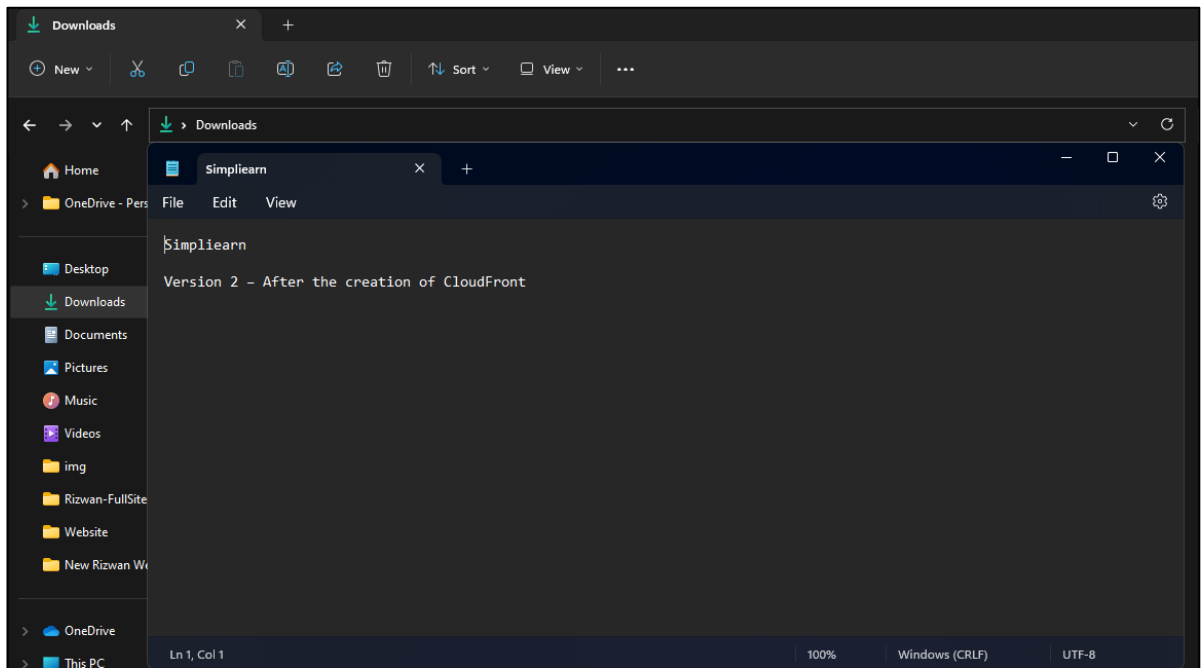


2.11 Open the text file that was created on the local PC

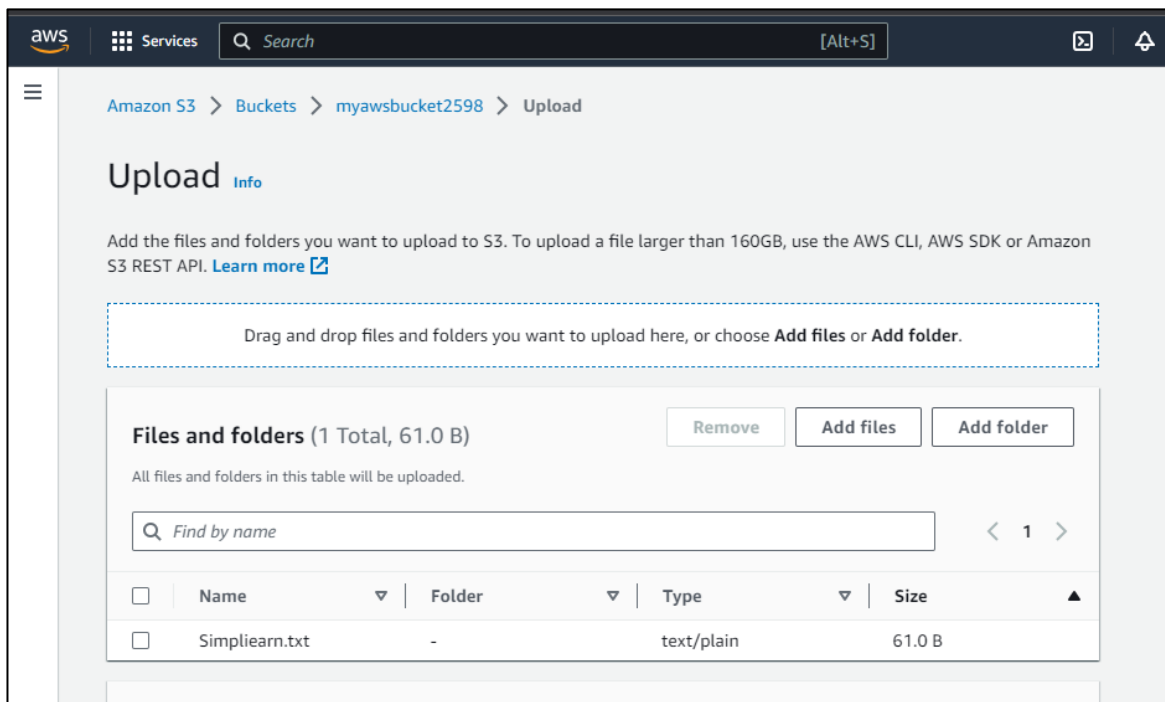


Note: Open the uploaded file in the S3 bucket and edit the file

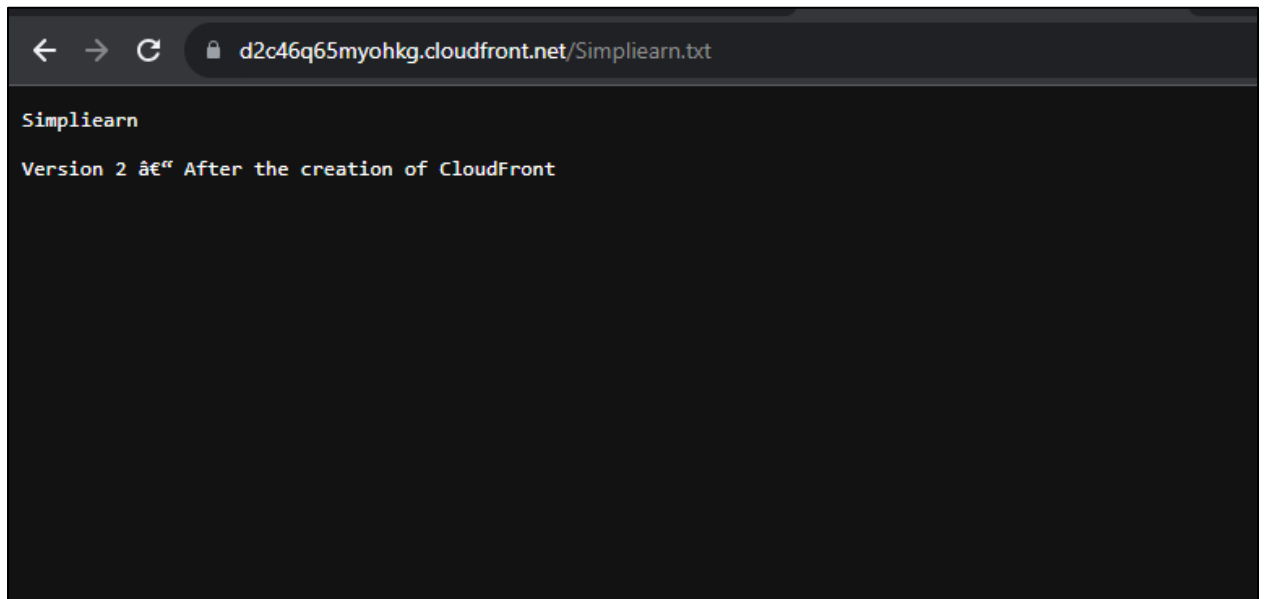
2.12 Enter **Version 2** – After the creation of CloudFront in the text file and save it



2.13 Upload the text file again to the S3 bucket and delete the old text file



Refresh the page once, you will get the updated output of the text file.



By following these steps, you have successfully configured CloudFront distributions to improve the efficiency of delivering content. Beginning with the establishment of distributions and their connection to existing S3 buckets, you have guaranteed effortless accessibility to your content.