



Andhra Pradesh State Skill Development Corporation



AWS CLOUD COMPUTING

CLOUDFRONT



CloudFront





Amazon CloudFront is a fast content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to customers globally with low latency, high transfer speeds, all within a developer-friendly environment. CloudFront is integrated with AWS – both physical locations that are directly connected to the AWS global infrastructure, as well as other AWS services. CloudFront works seamlessly with services including AWS Shield for DDoS mitigation, Amazon S3, Elastic Load Balancing or Amazon EC2 as origins for your applications, and Lambda Edge to run custom code closer to customers' users and to customize the user experience. Lastly, if you use AWS origins such as Amazon S3, Amazon EC2 or Elastic Load Balancing, you don't pay for any data transferred between these services and CloudFront.

You can get started with the Content Delivery Network in minutes, using the same AWS tools that you're already familiar with: APIs, AWS Management Console, AWS CloudFormation, CLIs, and SDKs. Amazon's CDN offers a simple, pay-as-you-go pricing model with no upfront fees or required long-term contracts, and support for the CDN is included in your existing AWS Support subscription.

Fast & global

The Amazon CloudFront content delivery network (CDN) is massively scaled and globally distributed. The CloudFront network has 217 points of presence (PoPs), and leverages the highly-resilient Amazon backbone network for superior performance and availability for your end users.

Security at the Edge

Amazon CloudFront is a highly-secure CDN that provides both network and application level protection. Your traffic and applications benefit through a variety of built-in protections such as AWS Shield Standard, at no additional cost. You can also use configurable features such as AWS Certificate Manager (ACM) to create and manage custom SSL certificates at no extra cost.

Highly programmable

Amazon CloudFront features can be customized for your specific application requirements. Lambda@Edge functions, triggered by CloudFront events, extend your custom code across AWS locations worldwide, allowing you to move even complex application logic closer to your end users to improve responsiveness. The CDN also supports integrations with other tools and automation interfaces for today's DevOps and CI/CD environments by using native APIs or AWS tools.

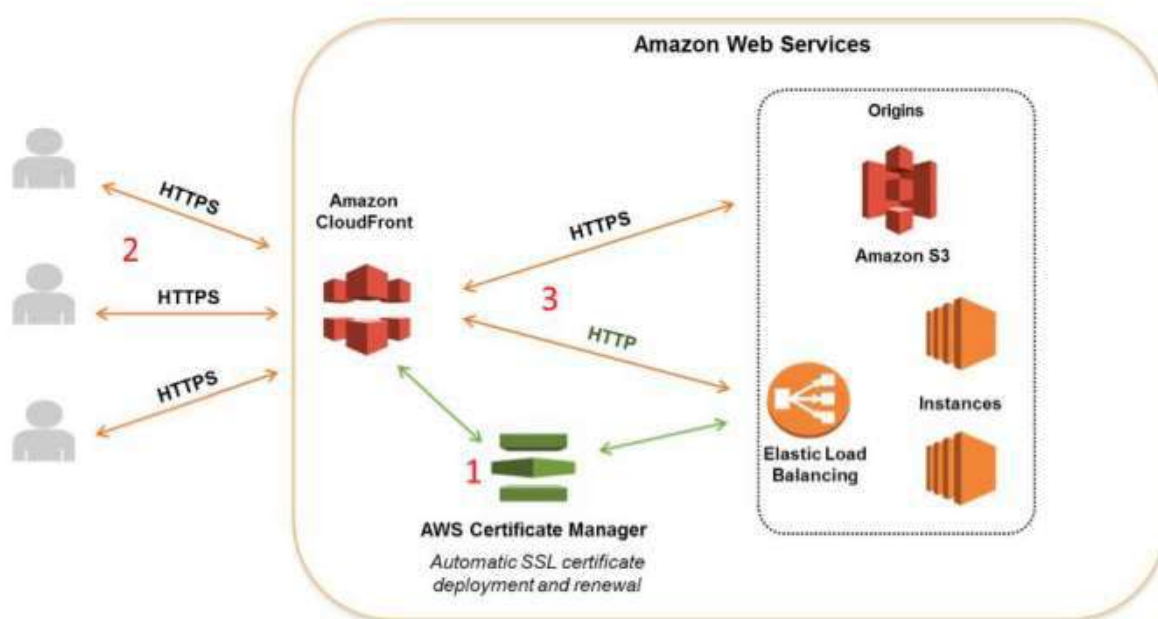
Deep integration with AWS

Amazon CloudFront is integrated with AWS services such as Amazon S3, Amazon EC2, Elastic Load Balancing, Amazon Route 53, and AWS Elemental Media Services . They are all accessible via the same console and all features in the CDN can be programmatically configured by using APIs or the AWS Management Console.

OBJECTIVE

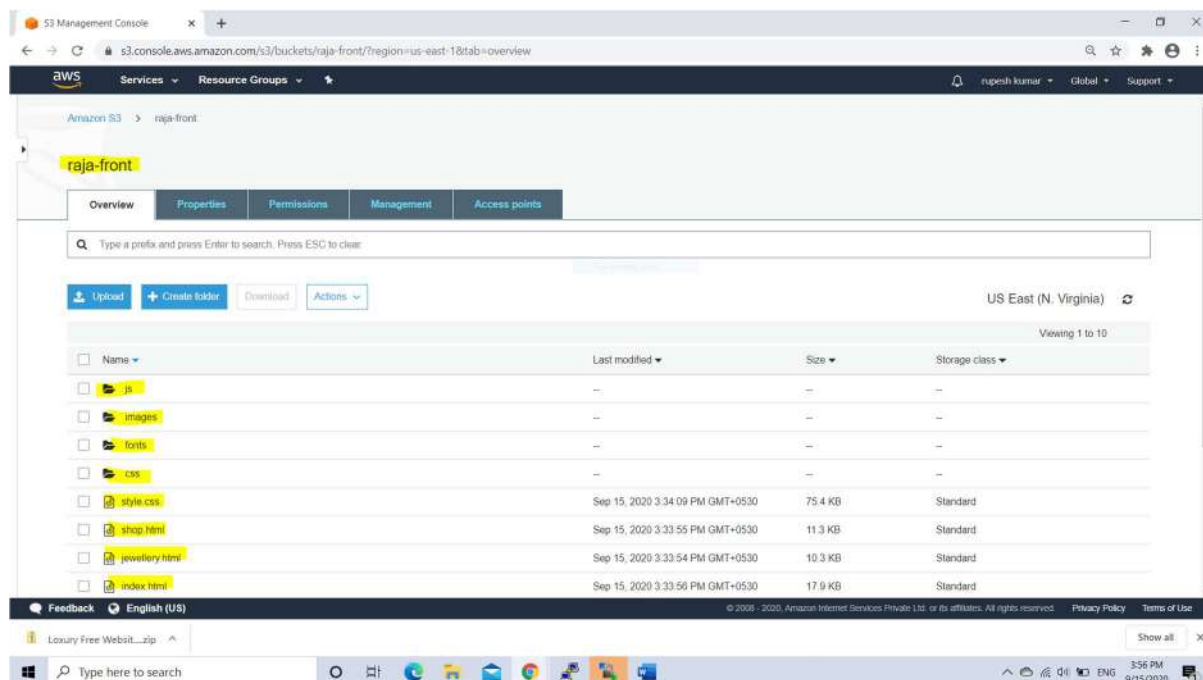
To configure and use AWS CloudFront Service

TOPOLOGY

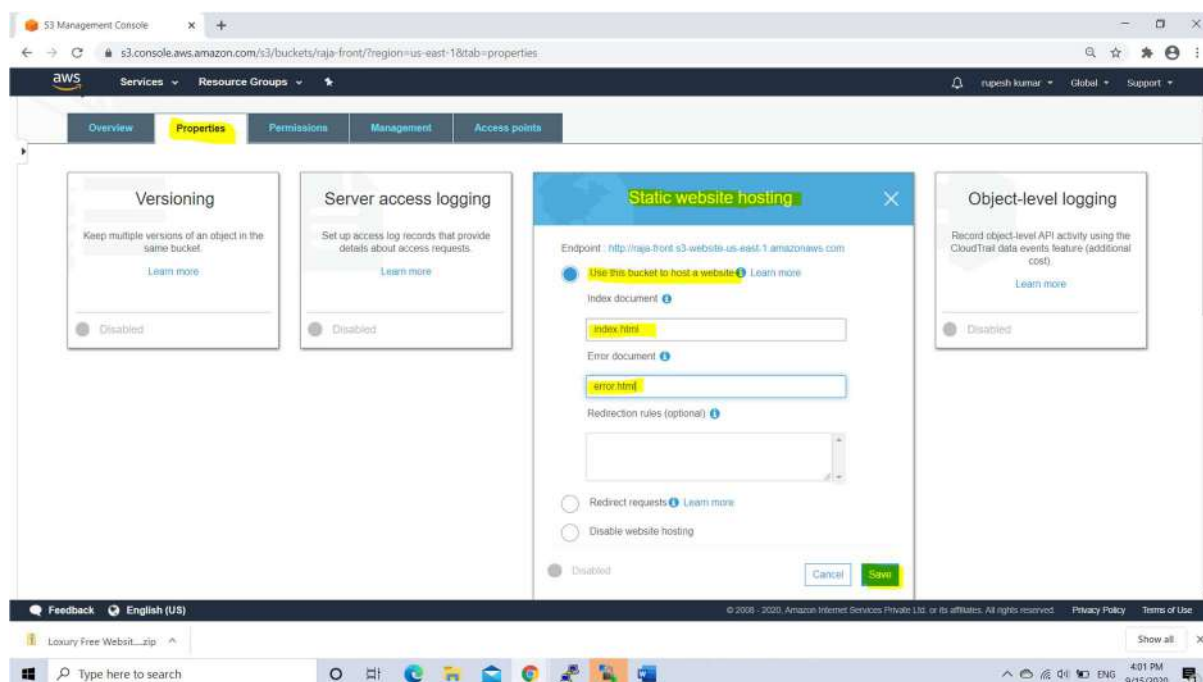


Step-1: Configure a Website with Amazon S3 bucket by uploading your content
Open AWS Console go for S3 Service.

From the AWS management console, click on services choose S3 then Create a Bucket and upload website files in S3.



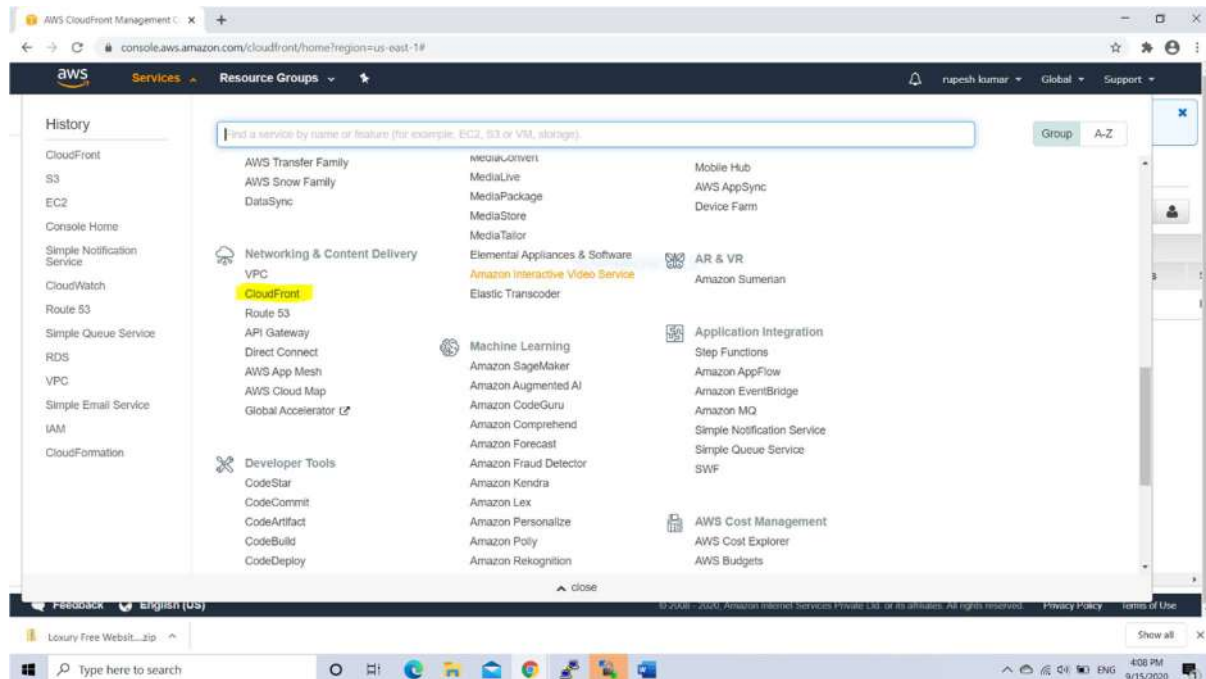
Select **Properties** click on **Static Web hosting**, choose “Use this bucket to host a website” and type index.html and error.html then click on “save”.



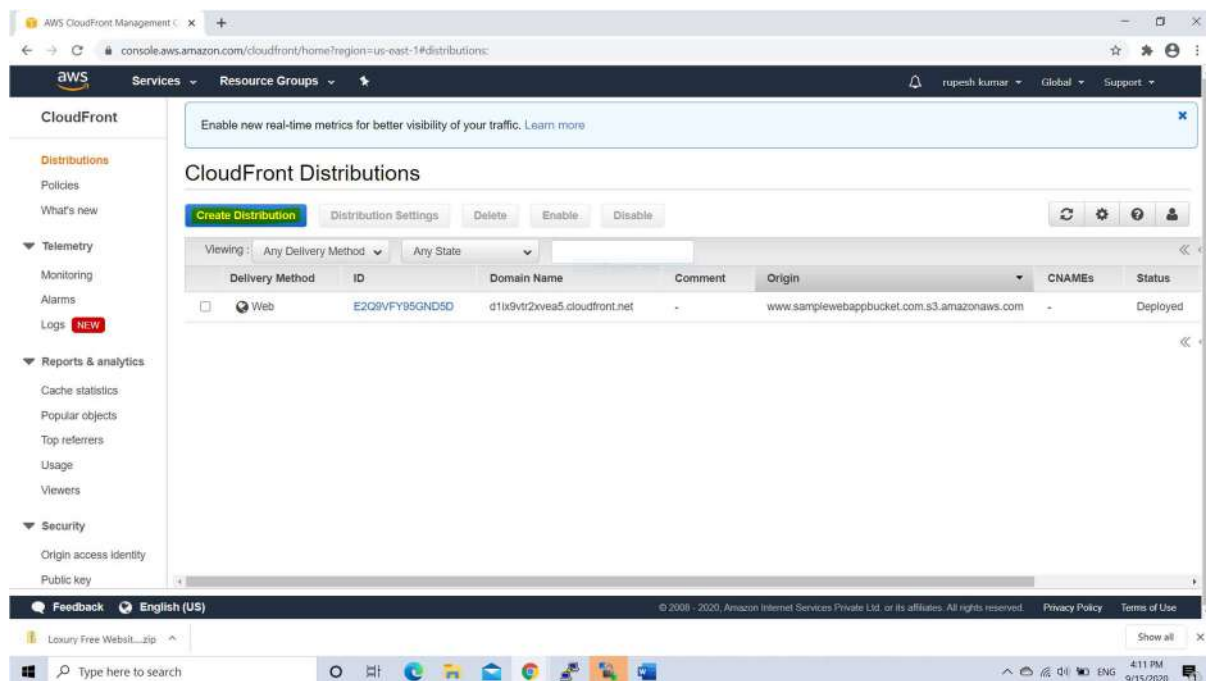


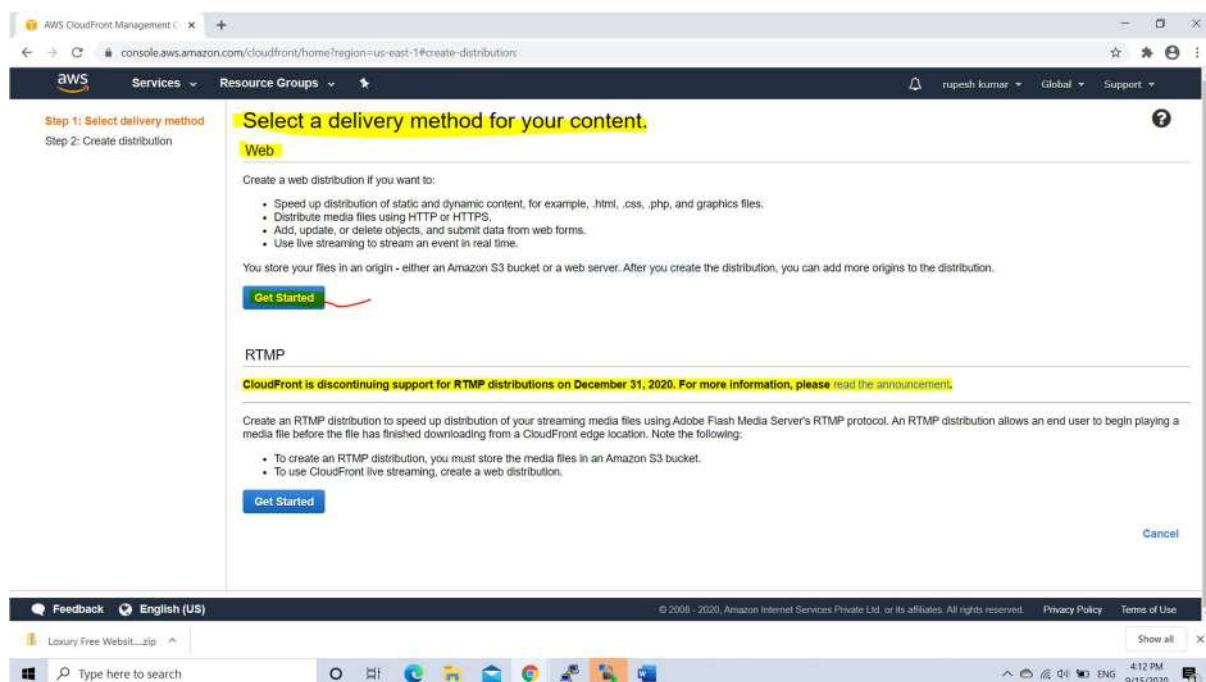
Step-2: Create a CloudFront Web Distribution

Open AWS Console Select, **Networking and Content Delivery** then Click on **CloudFront** service



Click on **Create Distribution** button “Select a delivery method for your content” wizard Under Web Click on Get Started button

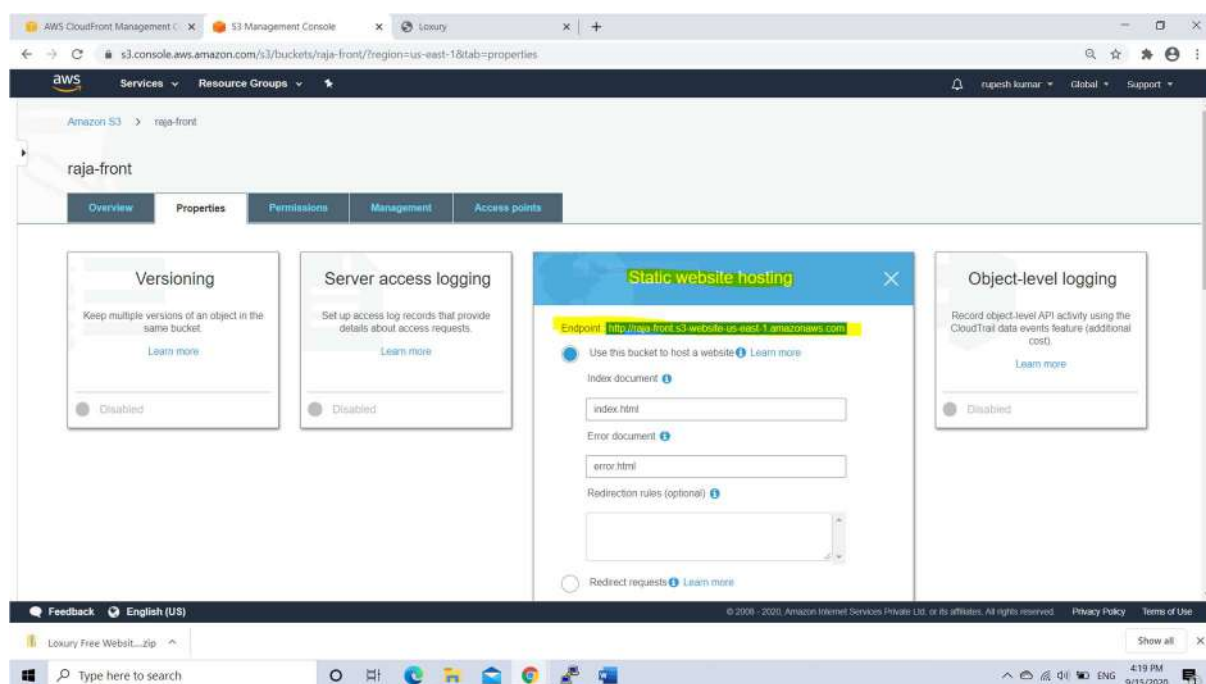




Under Create Distribution

For **Origin Domain Name**->copy the static website endpoint which you created in s3 and paste it at Origin Domain Name. i.e.


Origin Domain Name: -<http://staticwebgopi.s3-website-us-east-1.amazonaws.com>





Drag Down Go for Distribution Settings, For Price Class Select Edge location as **“US only, Canada and Europe”**

Drag Down Click on **Create Distribution**



The screenshot shows the AWS CloudFront console with the 'Distribution Settings' tab selected. The 'Distribution Settings' section is highlighted in yellow. The 'S3 Origin' is selected, and the 'Default Cache Behavior' is configured with 'Cache on GET, HEAD, OPTIONS, PUT, PATCH, POST, and DELETE' and 'Cache on GET, HEAD, OPTIONS, PUT, PATCH, POST, and DELETE'.





Verify the status Shows -> **In Progress**

The screenshot shows the AWS CloudFront console. The left sidebar contains navigation links for CloudFront, Distributions, Policies, What's new, Telemetry, Monitoring, Alarms, Logs, Reports & analytics, and Security. The main content area displays a table of distributions. The first distribution, '3VYHB281FSDK7', has a status of 'In Progress' and a state of 'Enabled'. The second distribution, '2Q9VFY95GND5D', has a status of 'Deployed' and a state of 'Enabled'.

ID	Domain Name	Comment	Origin	CNAMEs	Status	State	Last Modified
3VYHB281FSDK7	d1vmfuxur470sr.cloudfront.net	-	raja-front.s3-website-us-east-1.amazonaws.com	-	In Progress	Enabled	2020-09-15 16:33 UT
2Q9VFY95GND5D	d1x9vtr2xvea5.cloudfront.net	-	www.samplewebappbucket.com.s3.amazonaws.com	-	Deployed	Enabled	2020-09-14 20:01 UT

Wait for status to be **Deployed**

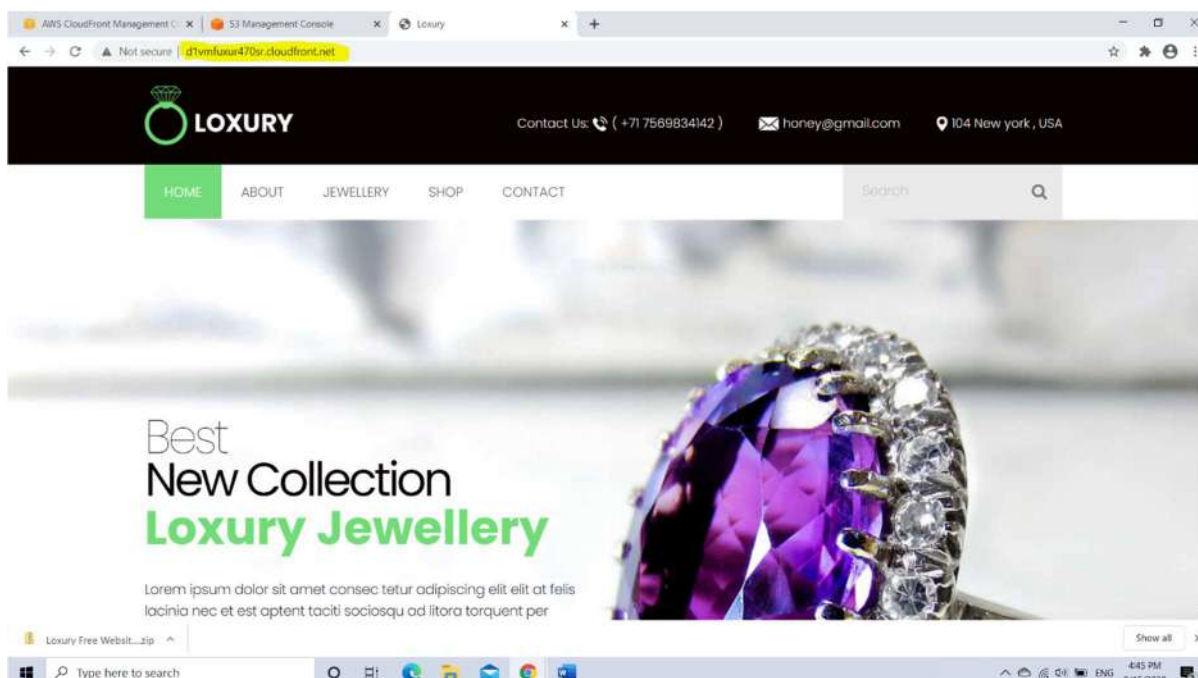
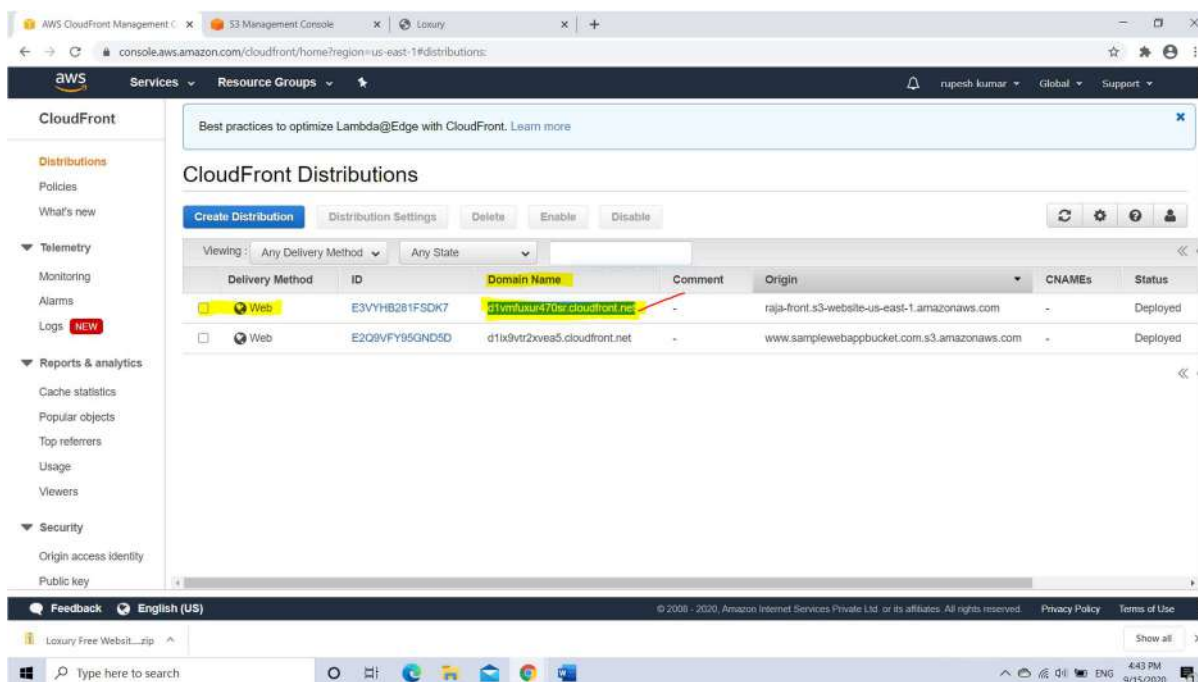
Note: It takes few minutes for changing the status

The screenshot shows the AWS CloudFront console after the status change. The first distribution, '3VYHB281FSDK7', now has a status of 'Deployed' and a state of 'Enabled'. The second distribution, '2Q9VFY95GND5D', remains 'Deployed' and 'Enabled'.

ID	Domain Name	Comment	Origin	CNAMEs	Status	State	Last Modified
3VYHB281FSDK7	d1vmfuxur470sr.cloudfront.net	-	raja-front.s3-website-us-east-1.amazonaws.com	-	Deployed	Enabled	2020-09-15 16:33 UT
2Q9VFY95GND5D	d1x9vtr2xvea5.cloudfront.net	-	www.samplewebappbucket.com.s3.amazonaws.com	-	Deployed	Enabled	2020-09-14 20:01 UT



Copy DNS name “**d3hv6v1ag4tvcy.cloudfront.net**” Then open the Browser and paste it URL. Verify The static Website is coming from CloudFront service.

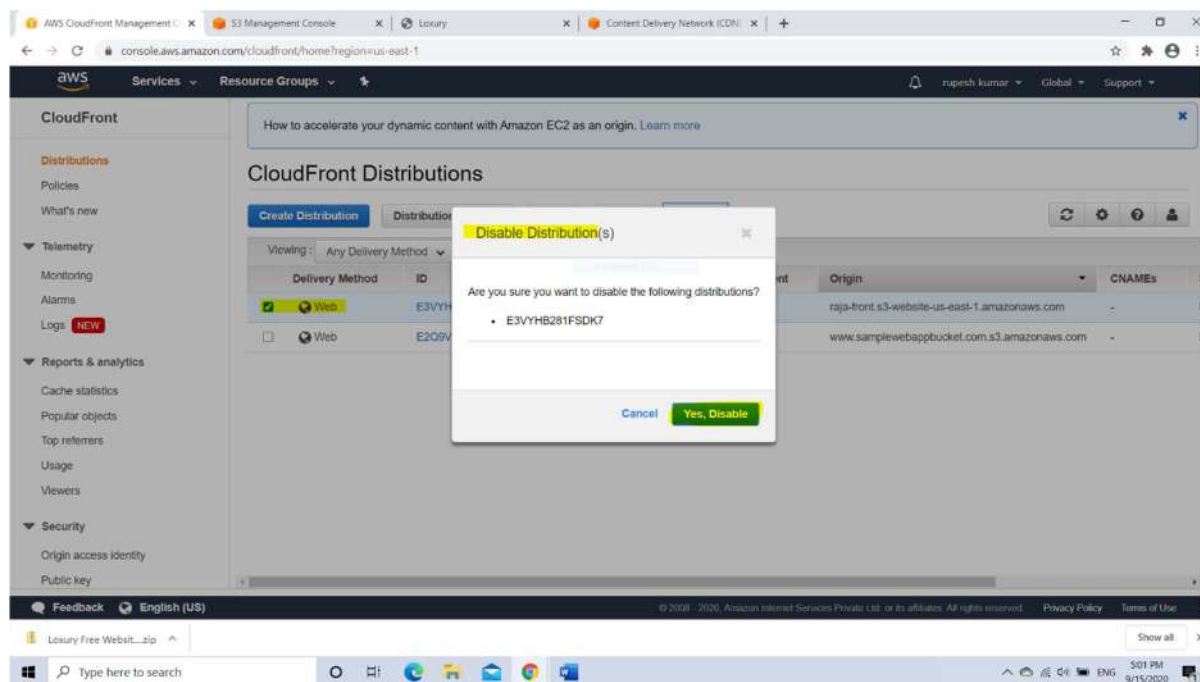




Delete the CloudFront distribution:

Open the Amazon CloudFront console

From the console dashboard, select the distribution you created earlier and click the Disable button. To confirm, click the Yes, Disable button.



After approximately 15 minutes when the status is Disabled, select the distribution and click the Delete. button, and then to confirm click the Yes, Delete button.

