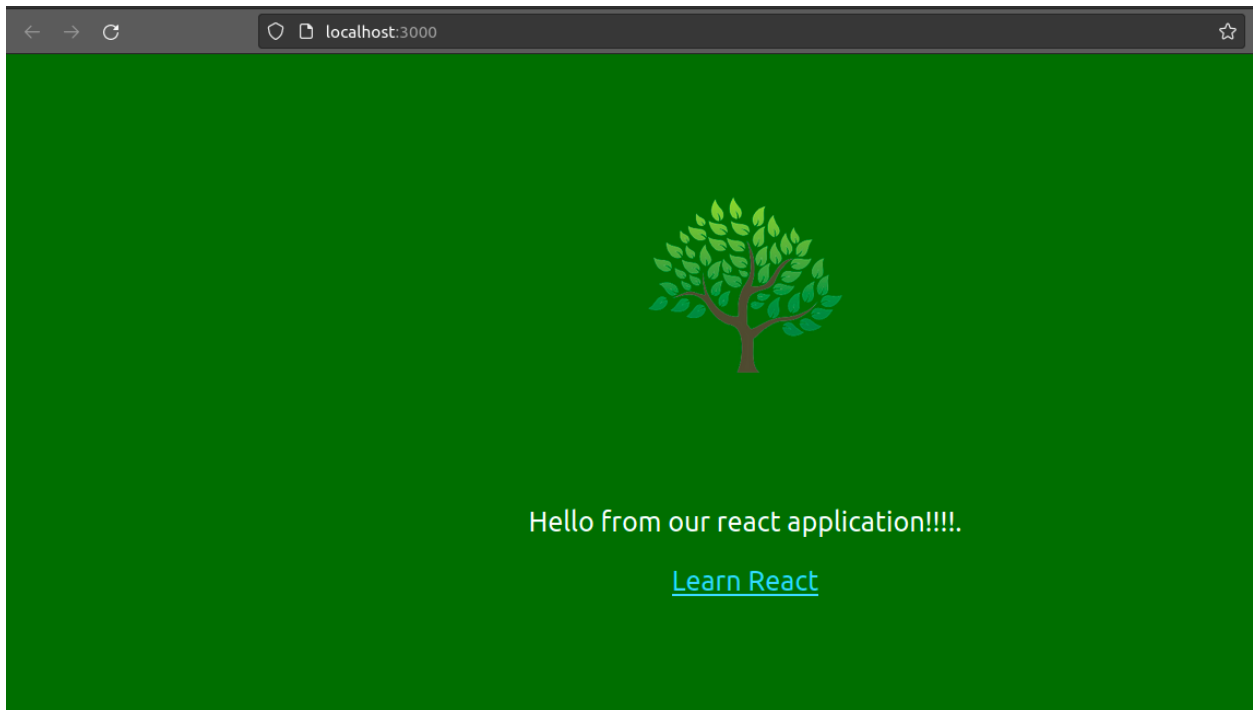


Host a react application on an S3 Bucket and deliver it through cloudfront.

We create a demo react app called demoreact and start it

```
samana@samana:~/demoreact$ npm start  
  
> demoreact@0.1.0 start /home/samana/demoreact  
> react-scripts start
```



Hello, This is react application for demo purposes

As it is found to be running successfully, we create a production build for our application.

```
samana@samana:~/demoreact$ npm run build  
  
> demoreact@0.1.0 build /home/samana/demoreact  
> react-scripts build
```

```
Creating an optimized production build...
```

The folder build has been created with the following contents.

```
samana@samana:~/demoreact$ cd build/
samana@samana:~/demoreact/build$ ls
asset-manifest.json  index.html  logo512.png  robots.txt
favicon.ico          logo192.png  manifest.json  static
samana@samana:~/demoreact/build$
```

Now we upload the contents of the build folder to our s3 bucket named samana-reactapp-bucket

```
samana@samana:~/demoreact/build$ aws s3 sync ./ s3://samana-reactapp-bucket
upload: ./asset-manifest.json to s3://samana-reactapp-bucket/asset-manifest.json
upload: static/js/2.972298a5.chunk.js.LICENSE.txt to s3://samana-reactapp-bucket/static/js/2.972298a5.chunk.js.LICENSE.txt
upload: ./index.html to s3://samana-reactapp-bucket/index.html
upload: ./manifest.json to s3://samana-reactapp-bucket/manifest.json
upload: static/css/main.b99c2553.chunk.css.map to s3://samana-reactapp-bucket/static/css/main.b99c2553.chunk.css.map
upload: ./logo192.png to s3://samana-reactapp-bucket/logo192.png
upload: ./logo512.png to s3://samana-reactapp-bucket/logo512.png
upload: ./favicon.ico to s3://samana-reactapp-bucket/favicon.ico
upload: ./robots.txt to s3://samana-reactapp-bucket/robots.txt
upload: static/css/main.b99c2553.chunk.css to s3://samana-reactapp-bucket/static/css/main.b99c2553.chunk.css
upload: static/js/3.c1c180f4.chunk.js to s3://samana-reactapp-bucket/static/js/3.c1c180f4.chunk.js
```

We can see that the contents of the build folder are successfully uploaded to the s3 bucket

samana-reactapp-bucket [Info](#)

Publicly accessible

Objects Properties Permissions Metrics Management Access Points

Objects (8)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 Inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Copy S3 URI Copy URL Download Open Delete Actions Create folder Upload

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	asset-manifest.json	json	December 14, 2021, 09:38:32 (UTC+05:45)	1.1 KB	Standard
<input type="checkbox"/>	favicon.ico	ico	December 14, 2021, 09:38:33 (UTC+05:45)	3.8 KB	Standard
<input type="checkbox"/>	index.html	html	December 14, 2021, 09:38:33 (UTC+05:45)	3.0 KB	Standard
<input type="checkbox"/>	logo192.png	png	December 14, 2021, 09:38:33 (UTC+05:45)	5.2 KB	Standard
<input type="checkbox"/>	logo512.png	png	December 14, 2021, 09:38:33 (UTC+05:45)	9.4 KB	Standard
<input type="checkbox"/>	manifest.json	json	December 14, 2021, 09:38:33 (UTC+05:45)	492.0 B	Standard

Amazon S3 > samana-reactapp-bucket > index.html

index.html Info

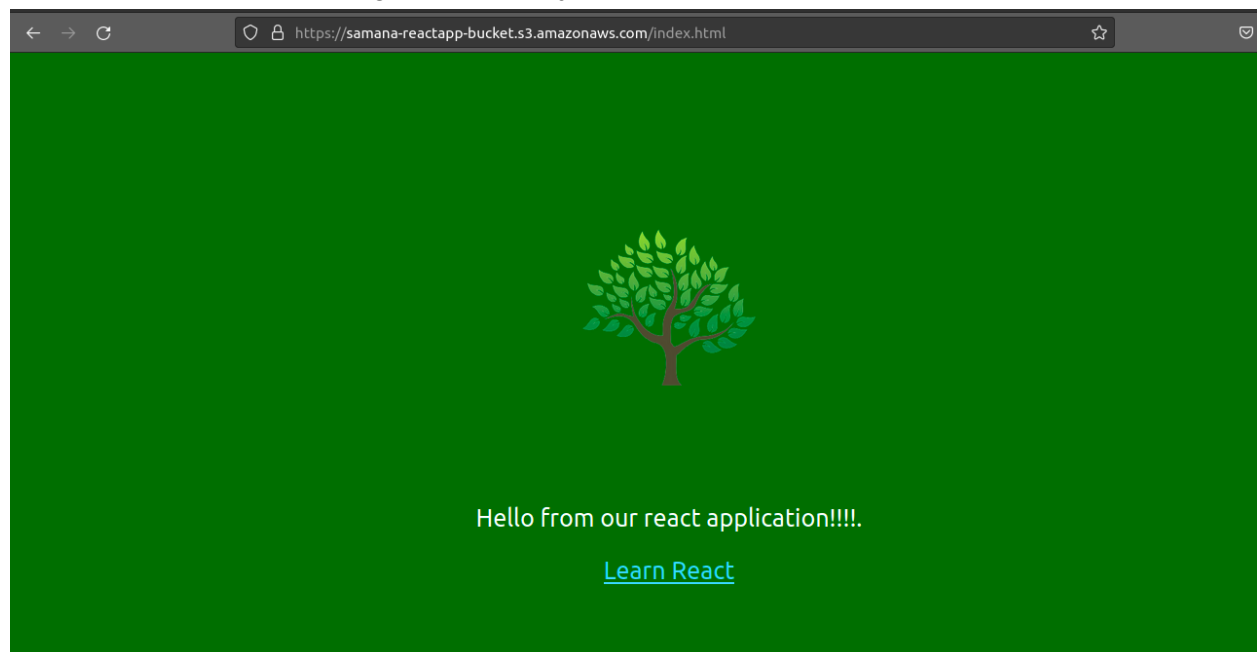
[Copy S3 URI](#) [Download](#) [Open](#) [Object actions](#)

[Properties](#) | [Permissions](#) | [Versions](#)

Object overview

Owner	onlineaccounts+training	S3 URI	s3://samana-reactapp-bucket/index.html
AWS Region	US East (N. Virginia) us-east-1	Amazon Resource Name (ARN)	arn:aws:s3::samana-reactapp-bucket/index.html
Last modified	December 14, 2021, 09:38:33 (UTC+05:45)	Entity tag (Etag)	bb2cbae091902af4fc594ce546d01630
Size	3.0 KB	Object URL	https://samana-reactapp-bucket.s3.amazonaws.com/index.html
Type	text/html		

We can access the index page from the object url as follows:



Now after we enable static website hosting for our bucket we can get the link to access our application i.e. <http://samana-reactapp-bucket.s3-website-us-east-1.amazonaws.com>

Static website hosting

Edit

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

Static website hosting

Enabled

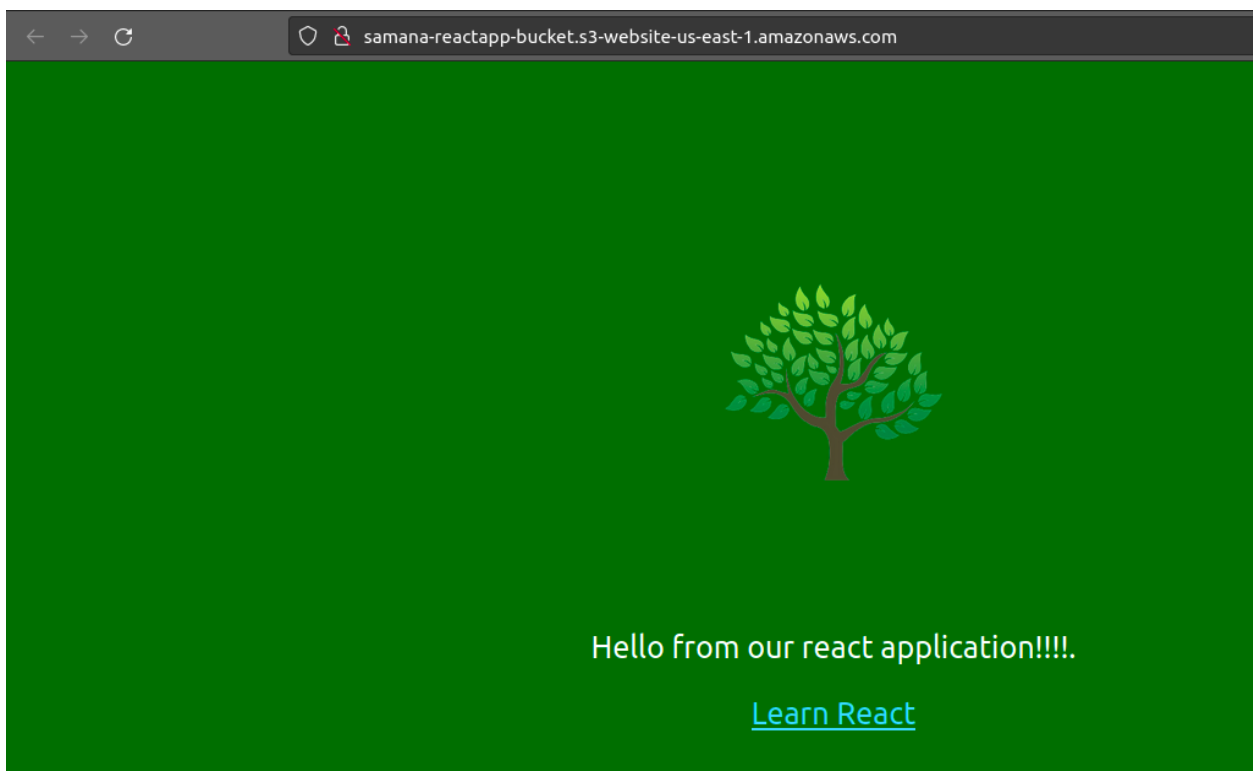
Hosting type

Bucket hosting

Bucket website endpoint

When you configure your bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. [Learn more](#)

<http://samana-reactapp-bucket.s3-website-us-east-1.amazonaws.com>



Now to deliver our application from cloudfront, we create a distribution in cloudfront.

CloudFront > Distributions

Distributions (6) Info

Refresh

Enable

Disable

Delete

Create distribution

Search all distributions

<

1

>

Settings

We set the origin domain as our s3 bucket domain name.

CloudFront > Distributions > create

Create distribution

Origin

Origin domain
Choose an Amazon Web Services origin, or enter your origin's domain name.

Origin path - optional [Info](#)
Enter a URL path to append to the origin domain name for origin requests.

Name
Enter a name for this origin.

Add custom header - optional
CloudFront includes this header in all requests that it sends to your origin.

[Add header](#)

CloudFront > Distributions > E1300W7YMYK6VW

E1300W7YMYK6VW

General | Origins | Behaviors | Error pages | Geographic restrictions | Invalidations | Tags

Details

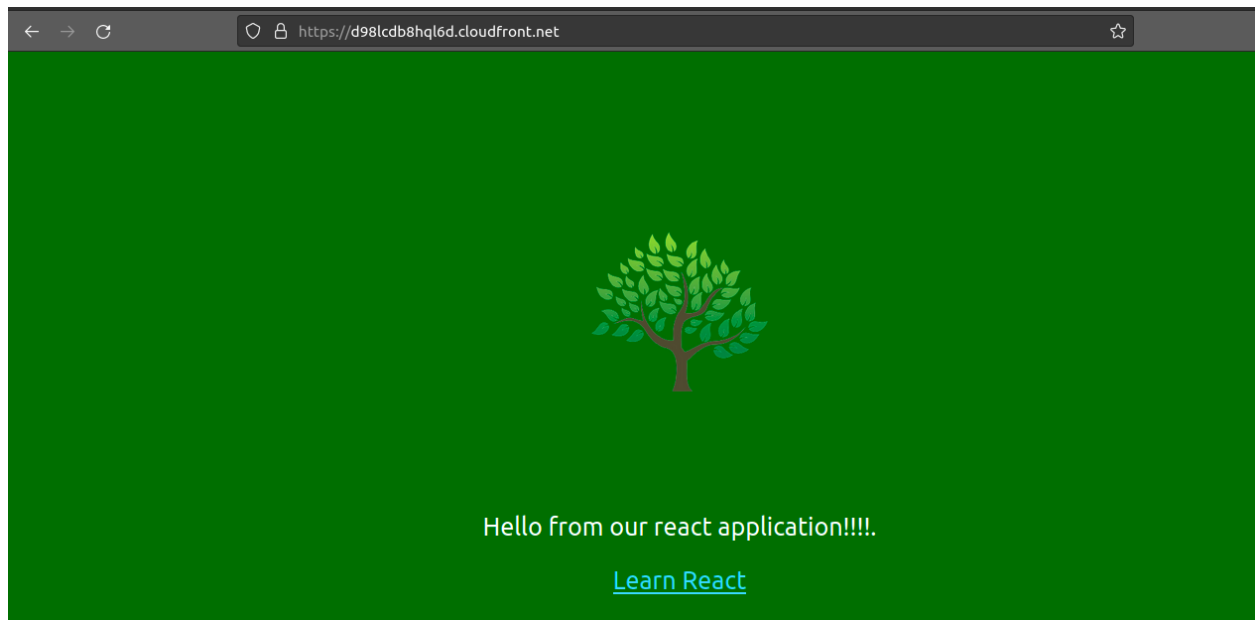
Distribution domain name d98lcdb8hq6d.cloudfront.net	ARN arn:aws:cloudfront::949263681218:distribution/E1300W7YMYK6VW	Last modified December 14, 2021 at 4:09:20 AM UTC
---------------------------------------------------------	---------------------------------------------------------------------	------------------------------------------------------

Settings

Edit

Description -	Alternate domain names -	Standard logging Off
Price class Use all edge locations (best performance)		Cookie logging Off
Supported HTTP versions		Default root object

We can now access our application from cloudfront domain name i.e <https://d98lcdb8hql6d.cloudfront.net>



Now, in order to redirect any 404 error to our main index page and show the custom error response as 200(ok), we create a error response as follows:

Error response [Info](#)

HTTP error code
Customize the custom error response when the origin sends this error code.

404: Not Found ▼

Error caching minimum TTL
Enter the error caching minimum time to live (TTL), in seconds.

10 ▾

Customize error response
Send a custom error response instead of the error received from the origin.

☐ No

☒ Yes

Response page path
Enter the path to the custom error response page.

/

HTTP Response code
Choose the HTTP status code to return to the viewer. CloudFront can return a different status code to the viewer than what it received from the origin.

200: OK ▼

We can see that when we try to access a path that doesn't exist, the page is redirected to our index page and the response is also shown as ok (200) as follows:

The screenshot shows a web browser at the URL `https://d98lcbd8hq16d.cloudfront.net/thispathdoesnotexist`. The page has a green background with a small tree icon and the text "Hello from our react application!!!!" and a "Learn React" link. The browser's developer tools are open to the Network tab, showing a list of requests. The first request, `thispathdoesnotexist`, has a status of 200. Subsequent requests for `main.b99c2553.chunk.css`, `2.972298a5.chunk.js`, `main.caa169e1.chunk.js`, `logo.bbe07cfb.png`, `logo192.png`, and `favicon.ico` also have a status of 200.

Status	Method	Domain	File	Initiator	Type	Transferred	Size	0 ms	320 ms	640 ms	960 ms
200	GET	d98lcbd8hq16d.cloudfr...	thispathdoesnotexist	document	html	cached	3.01 KB		323 ms		
200	GET	d98lcbd8hq16d.cloudfr...	main.b99c2553.chunk.css	stylesheet	css	cached	1.04 KB			38 ms	
200	GET	d98lcbd8hq16d.cloudfr...	2.972298a5.chunk.js	script	js	cached	0 B			37 ms	
200	GET	d98lcbd8hq16d.cloudfr...	main.caa169e1.chunk.js	script	js	cached	993 B			36 ms	
200	GET	d98lcbd8hq16d.cloudfr...	logo.bbe07cfb.png	2.972298a5.chunk.js-2 (img)	png	cached	83.34 KB			58 ms	
200	GET	d98lcbd8hq16d.cloudfr...	logo192.png	FaviconLoader.jsm:191 (img)	png	cached	5.22 KB			0 ms	
200	GET	d98lcbd8hq16d.cloudfr...	favicon.ico	FaviconLoader.jsm:191 (img)	vnd.micros...	cached	3.78 KB			0 ms	