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

To host a react application, we first created a react app using following commands:

Sudo apt install npm

Npx create-react-app react-bijay

Cd react-bijay

Npm start

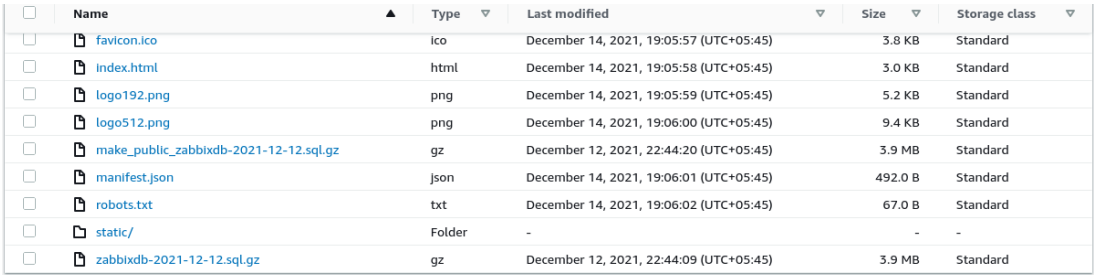
```
Compiled successfully!

You can now view react-bijay in the browser.

  Local:            http://localhost:3000
  On Your Network:  http://192.168.1.67:3000

Note that the development build is not optimized.
To create a production build, use npm run build.

^Cbj@batman:~/react/react-bijay$ npm run build

> react-bijay@0.1.0 build /home/bj/react/react-bijay
> react-scripts build

Creating an optimized production build...
Compiled successfully.

File sizes after gzip:

  41.34 KB  build/static/js/2.6bdd5a89.chunk.js
  1.63 KB   build/static/js/3.1d00e890.chunk.js
  1.17 KB   build/static/js/runtime-main.d2fad33b.js
  596 B     build/static/js/main.e0d3b047.chunk.js
  556 B     build/static/css/main.a617e044.chunk.css

The project was built assuming it is hosted at /.
You can control this with the homepage field in your package.json.

The build folder is ready to be deployed.
You may serve it with a static server:

  npm install -g serve
  serve -s build

Find out more about deployment here:
```

Now, for static build, we use the command: ***npm run build***

This creates a build folder, with necessary static files to host the app. These files are uploaded on the s3 bucket which we created in previous assignment: intern-bijaykandel37

First, I made the s3 bucket publicly accessible by setting its permission to the public. Within the properties tab, Static Website hosting is enabled with type bucket hosting and the link of the index.html object is mentioned.

And then Upload button to upload the static files and folders from the build directory and all contents of the build directory are uploaded to the s3 bucket.



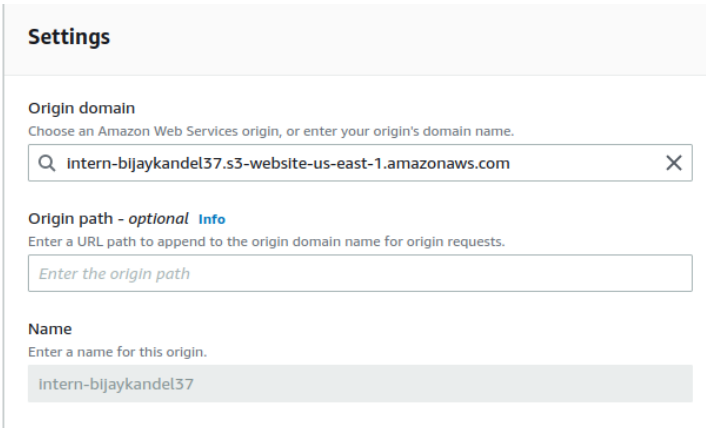
Name	Type	Last modified	Size	Storage class
favicon.ico	ico	December 14, 2021, 19:05:57 (UTC+05:45)	3.8 KB	Standard
index.html	html	December 14, 2021, 19:05:58 (UTC+05:45)	3.0 KB	Standard
logo192.png	png	December 14, 2021, 19:05:59 (UTC+05:45)	5.2 KB	Standard
logo512.png	png	December 14, 2021, 19:06:00 (UTC+05:45)	9.4 KB	Standard
make_public_zabbixdb-2021-12-12.sql.gz	gz	December 12, 2021, 22:44:20 (UTC+05:45)	3.9 MB	Standard
manifest.json	json	December 14, 2021, 19:06:01 (UTC+05:45)	492.0 B	Standard
robots.txt	txt	December 14, 2021, 19:06:02 (UTC+05:45)	67.0 B	Standard
static/	Folder	-	-	-
zabbixdb-2021-12-12.sql.gz	gz	December 12, 2021, 22:44:09 (UTC+05:45)	3.9 MB	Standard

Now, we added bucket policy as:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "PublicReadGetObject",
      "Effect": "Allow",
      "Principal": "*",
      "Action": "s3:GetObject",
      "Resource": "arn:aws:s3:::intern-bijaykandel37/*"
    },
    {
      "Sid": "2",
      "Effect": "Allow",
      "Principal": {
        "AWS": "arn:aws:iam::cloudfront:user/CloudFront Origin Access Identity E264JWU7WLEZHQ"
      },
      "Action": "s3:GetObject",
      "Resource": "arn:aws:s3:::intern-bijaykandel37/*"
    }
  ]
```

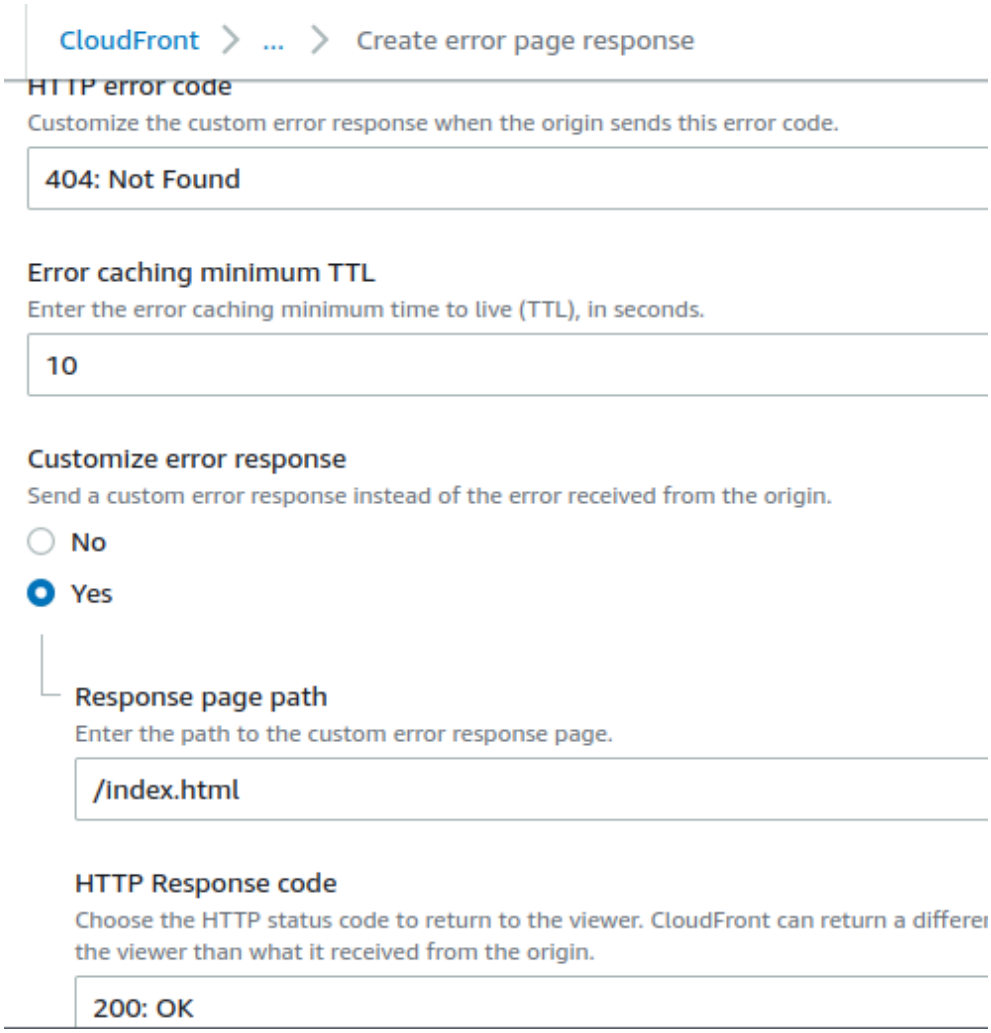
Now, we have to configure the cloudfront for this s3 bucket.

We create the Distribution for CloudFront service by Create Distribution button and then providing Origin domain name:



Default root object is set as index.html and other settings are left default and Create distribution.

On the error pages tab of the newly created distribution, we created a custom error response.



And this is created and now after a few minutes we can access the index.html page which we hosted using cloudfront dns.