When you configure an Amazon S3 bucket for website hosting, you must give the bucket the same name as the record that you want to use to route traffic to the bucket. For example, if you want to route traffic for example.com to an S3 bucket that is configured for website hosting, the name of the bucket must be example.com.

S3 –

1. Create a react app.

npx create-react-app my-todo-app

1. Implement the app.
2. Run the app locally.

npm start

1. Build the app locally. It will create a build folder and the deployable artefacts.

‘npm run build’

1. Create 2 S3 buckets.

[www.shivamtechstuff.tk](http://www.mytodoapp.io) and shivamtechstuff.tk

1. Go to [www.shivamtechstuff.tk](http://www.mytodoapp.io) bucket and upload the contents of the build folder from your local application directory. First, add the files inside the build folder and then upload the static folder from the build folder to the S3 bucket.
2. Make the [www.shivamtechstuff.tk](http://www.mytodoapp.io) bucket publicly accessible. Uncheck the ‘block all public access’ checkbox.
3. Add a bucket policy to allow everyone to access the contents of the bucket.

{

"Version": "2012-10-17",

"Statement": [

{

"Sid": "PublicRead",

"Effect": "Allow",

"Principal": "\*",

"Action": [

"s3:GetObject",

"s3:GetObjectVersion"

],

"Resource": "arn:aws:s3:::www.shivamtechstuff.tk/\*"

}

]

}

1. Now you have made the contents of your bucket public.
2. Now, go to properties – ‘Static website hosting’ section. Enable it. Select ‘Host a static website’. Give ‘index.html’ in the index document section.
3. You can launch the application from the [www.shivamtechstuff.tk](http://www.mytodoapp.io) bucket website end point.
4. Go to ‘shivamtechstuff.tk’ bucket, properties – ‘Static website hosting’. Enable. Hosting type – ‘Redirect requests for an object’.
5. Give hostname as ‘www.shivamtechstuff.tk.s3-website-us-east-1.amazonaws.com’. For now, select ‘http’ as protocol. This we will later change to ‘https’.

Route53 –

1. Register a free domain in freenom website. Give your domain name as ‘shivamtechstuff.tk’.
2. Link to register a free domain [[SOLVED] Freenom domain not available | Freenom account registration | Freenom Technical error - YouTube](https://www.youtube.com/watch?v=3Uopc4AFjOY)
3. Once you have registered a domain, then go to Route53 and create a hosted zone.
4. Copy the domain name from the registered domain and paste it in the ‘domain name’ in route53.
5. Choose public hosted zone and create.
6. In the hosted zone you can see 2 records NS (Name Server) and SOA.
7. Now you can create a new record which will point to the S3 bucket which is hosting the static web application content.
8. Create a ‘Simple Routing’.
9. Choose record type as ‘A – Routes traffic to an IPV4 address and some AWS services’.
10. Value/Route traffic to – ‘Alias to S3 website endpoint’.
11. Choose your S3 bucket region.
12. Choose the S3 endpoint which has the same bucket name as your record name.
13. Repeat steps 7 to 12, for [www.shivamtechstuff.tk](http://www.shivamtechstuff.tk) and shivamtechstuff.tk
14. Your hosted zone domain might not work now, ‘because your hosted zone and domain name servers are out of sync’.

Whenever user visits your site [www.shivamtechstuff.tk](http://www.shivamtechstuff.tk), DNS resolution has to be done through AWS. To enable this, you have to configure your AWS name servers to your customer domain.

[Hosting a Static Website on AWS with S3, CloudFront and Route53 | Web | Hosting | AWS - YouTube](https://www.youtube.com/watch?v=D6qB7MEFOe0)

Copy the name server values from your AWS hosted zone. And paste them in your custom domain’s custom name servers.

Now, run the url [www.shivamtechstuff.tk](http://www.shivamtechstuff.tk) or shivamtechstuff.tk in the browser.

Congratulations !!! you have successfully hosted a static web application in S3 and hosted your domain in Route53. Route53 is now routing your custom domain to S3 hosted static website. 😊

AWS certificate manager –

So that we can render our website over https.

1. Go to AWS Certificate manager.
2. Provision certificates – Request a public certificate – Request a certificate.
3. Add the domain names, [www.shivamtechstuff.tk](http://www.shivamtechstuff.tk) and shivamtechstuff.tk
4. Choose a domain validation method, either DNS validation or email validation.
5. You can choose DNS validation.
6. Create the CNAME records in the DNS hosted zone in Route53. Create them from the link provided in the AWS CM preview screen itself.
7. Once both the CNAME entries are created in the DNS, the validation will succeed.
8. Check that the certificate has been issued.

CloudFront –

1. Go to CloudFront and create a distribution.
2. Give Origin domain as ‘www.shivamtechstuff.tk.s3-website-us-east-1.amazonaws.com’.

To get the origin name value, go to the S3 bucket ‘www.shivamtechstuff.tk’ – properties – Static Hosting – Copy the URL and get value like this – ‘www.shivamtechstuff.tk.s3-website-us-east-1.amazonaws.com’.

1. Select redirect http to https.
2. Give alternate domain name CNAME - [www.shivamtechstuff.tk](http://www.shivamtechstuff.tk)
3. Select your custom SSL certificate.
4. Create distribution.
5. Create another distribution for ‘shivamtechstuff.tk’.
6. Give origin domain name as ‘shivamtechstuff.tk.s3-website-us-east-1.amazonaws.com’.

To get the origin name value, go to the S3 bucket ‘shivamtechstuff.tk’ – properties – Static Hosting – Copy the URL and get value like this – ‘shivamtechstuff.tk.s3-website-us-east-1.amazonaws.com’.

1. Follow the same steps as for the 1st distribution.
2. Give alternate domain name CNAME - [shivamtechstuff.tk](http://www.shivamtechstuff.tk)
3. Create the 2nd distribution.
4. Now you need to go back to the S3 buckets ‘shivamtechstuff.tk’ – properties – Static hosting – Edit – Change the protocol to HTTPS.
5. Once your CDNs are up and running, you can run the distribution domain name in browser and can see the website getting loaded.
6. You can check in the N/W tab, that the URL is hosted at S3 but it is coming via cloud front.

Now, we need to create A record for CDN in Route53.

Modify the existing A records which are pointing to S3 bucket, so that they point to the Cloud Front Distribution.

Route53 –

1. Go to route53, modify the A record ‘www.shivamtechstuff.tk’.
2. Change the alias to CloudFront. And select the distribution for ‘www.shivamtechstuff.tk’.
3. Modify the A record ‘shivamtechstuff.tk’.
4. Change the alias to CloudFront. And select the distribution for ‘shivamtechstuff.tk’.

Run the URLs in browser –

<https://www.shivamtechstuff.tk/>

<https://shivamtechstuff.tk/>

You will successfully open the website. Notice that the website is running on HTTPS protocol.

Wow, Congratulations 😊😊