

AWS S3 and CloudFront for Static Website Hosting with Terraform

Step 1: Set Up the S3 Bucket

1. **Create an S3 bucket** to store and serve your static website files, such as `index.html`. Make sure the bucket name is unique within the AWS namespace, e.g., `yash-s3-static-website`.
2. **Configure the S3 bucket for static website hosting:**
 - Enable "Static Website Hosting" in the bucket settings.
 - Set the `index.html` as the default document to load.
3. **Disable ACLs:**
 - Choose the option to "Disable ACLs" and enforce "Bucket Owner" to retain full ownership over the objects.
 - Block all public access to prevent direct exposure of the bucket, ensuring security and compliance with best practices.
4. **Add a bucket policy** to control access from CloudFront later. This policy grants CloudFront permissions to access your bucket content through Origin Access Control (OAC) instead of direct public access.

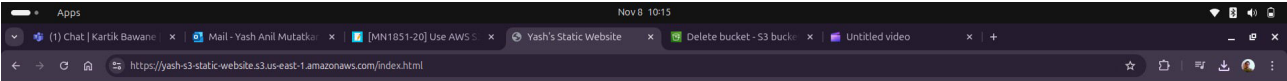
Step 2: Deploy CloudFront for Content Delivery

1. **Set up a CloudFront distribution** to act as a Content Delivery Network (CDN) for your website, improving performance and security:
 - Use the S3 bucket's static website endpoint as the origin for CloudFront.
 - Configure cache behavior and set up custom caching options if needed.
2. **Configure the CloudFront Distribution:**
 - Set "Viewer Protocol Policy" to redirect HTTP to HTTPS for secure access.
 - Use "Restrict Viewer Access" and select "Origin Access Control (OAC)" to restrict S3 content access to requests coming through CloudFront.
 - Ensure that CloudFront's caching policies align with the typical needs of your static website for efficient delivery.

Step 3: Test and Verify

1. **Apply the Terraform configuration** and verify the deployment.
2. **Check the S3 and CloudFront Resources:**
 - Ensure that CloudFront is correctly distributing the S3 content.
 - Check that CloudFront is redirecting requests securely via HTTPS.
 - Access the website using the CloudFront URL and confirm that it loads properly.

Output:



This is Yash Mutatkar

