

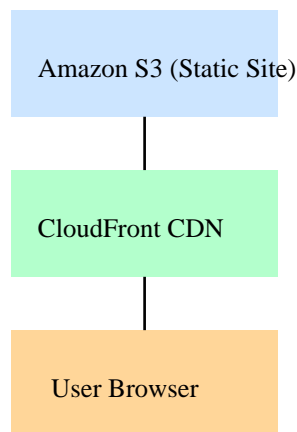
Project Documentation: Static Website Hosting on AWS (Beginner Level)

This project demonstrates how to host a static website using AWS services such as Amazon S3, CloudFront, Route 53, and IAM. It serves as a foundational exercise to understand AWS compute, storage, networking, and security fundamentals.

Architecture Overview:

- Amazon S3 – Hosts the static web files (HTML, CSS, JS, images)
- Amazon CloudFront – Distributes content globally with caching and HTTPS
- AWS Certificate Manager (ACM) – Provides SSL certificate for HTTPS
- Amazon Route 53 – Manages domain and DNS routing (optional)
- AWS IAM – Manages access and security policies

Users access the website through CloudFront, which retrieves content from the S3 bucket.



Implementation Steps:

1. Create an S3 bucket and upload your static website files (index.html, style.css, etc.)
2. Disable "Block all public access" in S3 settings.
3. Add a bucket policy to allow public read (s3:GetObject).
4. Enable Static Website Hosting under the bucket's properties.
5. (Optional) Configure CloudFront distribution for HTTPS and caching.
6. (Optional) Add a custom domain using Route 53.

```
Bucket Policy Example: { "Version": "2012-10-17", "Statement": [{ "Sid":  
  "PublicReadGetObject", "Effect": "Allow", "Principal": "*", "Action":  
    "s3:GetObject", "Resource": "arn:aws:s3:::your-bucket-name/*" }] }
```

Learning Outcomes:

- Understand how AWS S3 static hosting works.
- Configure IAM permissions and bucket policies.
- Implement HTTPS and CDN delivery using CloudFront.
- Gain foundational skills for AWS Solutions Architect roles.