AWS Website Hosting - Team Collaboration & Troubleshooting

1.Project Collaboration Overview

This project was executed by a **three-member team** with a focus on deploying a static website using AWS services. The team worked together to purchase a domain, configure AWS infrastructure, and troubleshoot various hosting-related issues.

😈💻 Team Collaboration

This project was successfully executed by a **three-member team**:

- **Tirumala Rao**
- **Rohit Sri Sai**
- **Sai Bhavani**

Key Responsibilities

- **Domain Purchase & Setup:** Acquired domain using GoDaddy and configured DNS settings in AWS Route 53.
- **Website Hosting:** Uploaded static website files to an S3 bucket and enabled public access.
- **CloudFront Configuration:** Configured a Content Delivery Network (CDN) to optimize website speed and security.
- **SSL Certificate Integration:** Used AWS ACM to secure the website with HTTPS.

Throughout the project, the team coordinated efforts, resolved technical challenges, and followed best practices to successfully deploy the website.

2.Troubleshooting & Solutions

1. SSL Certificate Not Validated

Issue: SSL certificate issued via AWS ACM was not getting validated.

Solution:

- Checked DNS validation in Route 53.
- Ensured correct CNAME record was added.
- Verified domain ownership through GoDaddy settings.
- Solution confirmed when certificate status changed to "Issued."

2. CloudFront Not Serving Content

Issue: The website was not loading from the CloudFront distribution.

Solution:

- Verified that the S3 bucket had public read access.
- Checked if CloudFront distribution settings allowed S3 as the origin.
- Cleared the CloudFront cache and invalidated old files.
- Solution confirmed when website loaded correctly via CloudFront URL.

3. Website Not Resolving with Custom Domain

Issue: The domain was not mapping to the CloudFront distribution.

Solution:

- Verified Route 53 records (A record and CNAME pointing to CloudFront).
- Ensured the alias target in Route 53 was correctly set to the CloudFront distribution.
- Solution confirmed when the domain successfully resolved to the hosted website.

4. S3 Bucket Permissions Issue

Issue: Objects in the S3 bucket were not accessible publicly.

Solution:

- Modified the S3 bucket policy to allow public read access.
- Enabled "Static website hosting" in S3 settings.
- Solution confirmed when website assets loaded properly.

3.Mentor's Guidance

The team was guided by **K.M. Vignan**, who provided insights on:

- Best practices for AWS hosting.
- DNS configuration in Route 53.
- Troubleshooting SSL and CloudFront issues.
- Ensuring security and performance optimizations.

4.Key Learnings & Takeaways

- **Team Collaboration:** Effective division of tasks and knowledge sharing.
- **Problem-Solving:** Hands-on experience in debugging and resolving AWS-related issues.
- **AWS Services Mastery:** Practical exposure to **S3, CloudFront, Route 53, and ACM**.
- **Documentation & Reporting:** Keeping detailed logs of errors and solutions helped in faster resolutions.