# Scalable Static Website with S3 + CloudFront + GitHub Actions

## Introduction

This project demonstrates a modern method of hosting and deploying a static website using AWS S3, CloudFront, and GitHub Actions. It provides secure, global access with HTTPS and automatic deployments through a CI/CD pipeline.

## Abstract

The static website is hosted on an S3 bucket, distributed via AWS CloudFront for global delivery and HTTPS, and automatically deployed using GitHub Actions upon each push to the main branch. This setup is cost-effective, scalable, and suitable for personal portfolios, landing pages, and educational DevOps projects.

## Tools Used

- AWS S3 (Static Website Hosting)
- AWS CloudFront (CDN + HTTPS)
- GitHub Actions (CI/CD)
- HTML(Static Content)
- Bash/Git (Local Version Control)

## Steps Involved in Building the Project

- Created a static HTML website with index.html and error.html
- Initialized a GitHub repo and pushed the code
- Configured GitHub Actions to sync content to S3
- Enabled static website hosting in S3 and made the bucket public
- Created a CloudFront distribution pointing to the S3 website endpoint
- Enabled HTTPS via the default CloudFront SSL certificate
- Deployed the website and verified the CloudFront domain with HTTPS

## Conclusion

This project is a complete, serverless, and globally available solution to hosting static websites with automated deployment pipelines. It demonstrates fundamental DevOps practices and scalable cloud-native architecture using free-tier AWS services.