README FILE

Project Title: Host Static Website Using Terraform

Objective

The goal of this project is to host a static website on AWS S3 using Terraform. This involves:

- Creating an S3 bucket to store website files.

- Configuring the S3 bucket for public access with a website configuration.

- Uploading the website files (index.html and styles.css) to the bucket.

Files in the Project

1. **main.tf**
   This is the Terraform configuration file that:

   - Defines AWS as the provider.

   - Creates an S3 bucket with a unique name using the random_id resource.

   - Configures the bucket for static website hosting.

   - Makes the bucket publicly accessible using policies.

   - Uploads the index.html and styles.css files to the bucket.

2. **index.html**
   The main HTML file that provides the content of the website, including a header, navigation links, and sections.

3. **styles.css**
   A CSS file that defines the styling for the HTML content, like font, layout, colors, and more.

Steps to Perform This Project

1. Prerequisites

- AWS account with access keys configured.
- Terraform installed on your local machine.
- Basic knowledge of Terraform and S3 services.

2. Initialize Terraform

- In the project directory, open a terminal and
  run: terraform init

This downloads the necessary provider plugins.

3. Plan and Apply Terraform

- To preview the changes Terraform will make,
  run: terraform plan
- To apply the configuration and create the resources,
  run: terraform apply
  You'll be prompted to confirm. Type yes.

4. Verify Resources

- Log in to the AWS Management Console and navigate to the **S3 service**.
- Verify that a new bucket is created and contains index.html and styles.css.
- Access the static website URL displayed in the Terraform output.

5. Test the Website

- Open the website endpoint in a browser to see your static website live.

Purpose and Benefits of This Project

1. **Practical Knowledge**:
   - Gain hands-on experience with Terraform and AWS.
   - Learn to configure infrastructure as code (IaC) to automate resource creation.

2. **Understanding S3 Static Website Hosting**:
   - Learn how to host websites on AWS S3.
   - Understand S3 bucket policies and public access configurations.

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About Us

We create high-quality web experiences for our users. This is a simple static website hosted on AWS S3!

Our Services

- Static Website Hosting
- Cloud Infrastructure Management
- DevOps Automation

Contact Us

Email us at info@staticwebsite.com.