AWS CodeDeploy EC2 Project - Documentation

This document explains the step-by-step process of setting up a simple AWS CodeDeploy project using two Amazon Linux 2 EC2 instances. One EC2 acts as the Web Server (CodeDeploy Agent), and the other simulates a Developer machine for uploading and deploying the code.

1. Create IAM Roles for EC2-S3-CodeDeploy Access

Create an IAM role with AmazonS3FullAccess, AWSCodeDeployFullAccess, and AmazonEC2RoleforAWSCodeDeploy. Attach this role to the Web Server EC2 instance.

2. Create IAM User Account for Developer

Create an IAM user with programmatic access and assign AmazonS3FullAccess and AWSCodeDeployFullAccess. Use this user to configure the AWS CLI on the Developer EC2 instance.

3. Install and Prepare the CodeDeploy Agent on Web Server

Install the CodeDeploy agent on the Web Server EC2 instance using yum, ruby, and wget. Start and check the service to ensure it's running.

4. Create the Code from Developer Machine

On the Developer EC2, prepare index.html, appspec.yml, and deployment scripts (httpd_install.sh, httpd_start.sh, httpd_stop.sh). Zip the files for deployment.

5. Create CodeDeploy Application and Push the Code to S3 Bucket

Upload the zipped code to an S3 bucket and create a CodeDeploy application using the AWS CLI.

6. Create Deployment Group to Include Web Server

Create a deployment group linked to the CodeDeploy application. Define EC2 tags and the IAM service role.

7. Create Deployment to Push the Code to the Web Server

Trigger the deployment using AWS CLI by providing the application name, deployment group name, and S3 zip location.

8. Test the Website Configuration

Access the public IP of the Web Server EC2 in a browser to verify the deployment and view the deployed index.html page.