John Uhaneh

This project was completed for interview purposes only.

BriteCore Project Description

Create a serverless application on AWS that deploys via CloudFormation.

This application should expose two API endpoints. One to subscribe an email address, and another to unsubscribe. Once subscribed, an email should be sent once a day containing a random fact/joke/quote.

My Notes

For this project I created the Subscribe Lambda function first and tested, then added API Gateway to trigger the function. After that added the Publish Lambda function to send the daily Dad Jokes out to the subscribers and then added the CloudWatch rule to trigger the function. After all was done I created the CloudFormation template to launch the stack.

Please note that the Publish Lambda function is not setup up by the CF due to it needing packages such as “request” and “cheerio” so had to configure this function locally and upload to S3 bucket and have the CF template get the package from the bucket and launch it.

I have included error handlings throughout the project with most being captured by CW as event logs for troubleshooting.

The YAML code is set to launch resources in “us-west-1” region which needs to be changed to point to other regions if needed. Please ensure that your S3 bucket’s region and this region in CF match.

Challenges

My biggest challenge was making enough time to get this done. This project has few parts that need to be tested time and time again and one bug can take time to resolve and I had few bugs to work through. The one that took most of my time was the API Gateway where I was getting not so clear error but managed to fix it on a weekend.

How to

1- Setup a public S3 bucket (I called mine bitecoreproject) and make it a static website container.
2- Copy the CloudFormation YAML template to the bucket.

3- This project contains an ugly web interface for subscriber to enter their email and subscribe to the SNS topic. The API Gateway for the stage (prod) for POST needs to be inserted manually into the "Action" section of the form and then tested via uploading to a public S3 bucket which has been configured as a static website.
4- Copy the SNSPub.zip (The Publish Lambda function) to the bucket.
5- First launch the CF stack using the S3 bucket's CF YAML URL.
6- Choose a name for the stack (the only input parameter).
7- In a couple of minutes, the successful created message should appear.
8- Open the WebUI by going to the URL and enter your email to subscribe to the SNS topic.
9- You will see a confirmation message that your email has been added.
10- Confirm your subscription by clicking on the link in your email.
11- Wait for the first SNS message in your email and another day for the next.

Have Fun.

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