AWS Lambda Challenge Lab
Solution Steps

Objective

This document outlines the main solution steps for the AWS Lambda challenge lab.

Solution steps

Note: Make sure to create all of the resources below in the same region.

In the AWS console:

1. **Create an Amazon S3 bucket** and name it `xxx-word-counter-bucket` where `xxx` are your initials. Make sure the bucket name is globally unique.

2. **Create an IAM role** to give permission to the Lambda function to access Amazon S3 and Amazon SNS. Name the role: `wordCounterRole`. Give the role the following permissions:

   a. `AWSLambdaBasicExecutionRole`
   b. `AmazonSNSFullAccess`
   c. `AmazonS3FullAccess`

3. **Create a Simple Notification Service (SNS) topic**. Name it: `wordCounterTopic`

4. **Subscribe to the SNS topic**. Choose either the `Email` or `SMS` protocol, and specify the associated endpoint information.

5. **Create a Lambda function**.

   a. Function name: `wordCounter`
   b. Runtime: `Python 3.7 (or higher)`
   c. Execution role: `wordCounterRole`

6. **Add the function code** using the editor.

7. **Configure the function**: Add the topic's ARN as an environment variable with a key that matches the code's expectation.

aws re/start

8. **Add a trigger** to the function so that it is invoked whenever an object is uploaded to the S3 bucket. Configure the trigger as follows:

   a. Trigger type: `S3`
   b. Bucket: `xxx-word-counter-bucket`
   c. Event Type: `All object create events`

9. **Test the function**.

   a. Create a text file with one or more sentences in it.
   b. Upload the text file to the `xxx-wordCountBucket`.
   c. Wait a few moments and check your email or phone to verify that you got the message. Validate that the word count in the message is correct.

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