

AWS Lambda Function: Word Count in a Text File

This manual guides you through creating an AWS Lambda function to count words in a text file. It includes setting up the function, using SNS for notifications, and automating execution through S3 uploads.

Step 1: Create an AWS Lambda Function

1. Sign in to the AWS Management Console.
2. Navigate to AWS Lambda and click 'Create function'.
3. Choose 'Author from scratch', name the function 'WordCountFunction'.
4. Set runtime to Python 3.x and select 'LambdaAccessRole' as the execution role.
5. Click 'Create function'.

Step 2: Write the Lambda Function Code

1. In the function's code editor, replace the default code with the following:

```
import json
import boto3

def lambda_handler(event, context):
    s3 = boto3.client('s3')
    sns = boto3.client('sns')
    bucket = event['Records'][0]['s3']['bucket']['name']
    file_key = event['Records'][0]['s3']['object']['key']

    response = s3.get_object(Bucket=bucket, Key=file_key)
    text = response['Body'].read().decode('utf-8')
    word_count = len(text.split())

    message = f"The word count in the {file_key} file is {word_count}."

    sns.publish(TopicArn='your-sns-topic-arn', Message=message, Subject="Word Count Result")

    return {"statusCode": 200, "body": message}
```

Step 3: Configure S3 Trigger

1. Navigate to S3 and select your bucket.

2. Go to 'Properties' > 'Event notifications' > 'Create event'.
3. Set an event name and choose 'Put' as the event type.
4. Select 'Lambda Function' as the destination and link it to your Lambda function.
5. Save the changes.

Step 4: Test the Function

1. Upload a sample text file to your S3 bucket.
2. Check CloudWatch Logs for execution details.
3. Verify that you received an SNS email notification.

Conclusion

Your AWS Lambda function is now configured to automatically count words in uploaded files and send notifications via SNS.