

# Challenge Lab: AWS Lambda Exercise

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## Duration

This lab takes approximately **90 minutes** to complete.

## Launch Your Lab Environment

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1. At the top of these instructions, click Start Lab to launch this lab.

A Start Lab panel opens displaying the lab status.

2. Wait until you see the message "**Lab status: ready**", then click the **X** to close the Start Lab panel.

This lab creates a new AWS account for you where you will create the AWS Lambda function and resources needed to implement the requirements below.

## Your Challenge

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- Create an **AWS Lambda function** to count the number of words in a text file. The general requirements are as follows:
  - Use the **AWS Management Console** to develop a Lambda function in **Python** and to create its required resources.
  - Report the word count in **an email** using an **Amazon Simple Notification Service (SNS) topic**. Optionally, also send the result in **an SMS (text) message**.
  - Format the response message as follows:

The word count in the file <textFileName> is nnn.

Replace *textFileName* with the name of the file.

- Specify the email subject line as: *Word Count Result*
- Automatically trigger the function when the text file is uploaded to an **Amazon S3 bucket**.
- Test the function by uploading several text files with different word counts to the S3 bucket.
- Forward the email produced by one of your tests to your instructor along with a screenshot of your Lambda function.

## Hints:

- Make sure to create all of your resources **in the same region**.
- You will need an AWS Identity and Access Management (IAM) role for the Lambda function to access other AWS services. Since the lab policy does not permit IAM role creation, a role called

**LambdaAccessRole** should be used.

LambdaAccessRole role provides the following permissions:

- AWSLambdaBasicExecutionRole
- AmazonSNSFullAccess
- AmazonS3FullAccess
- CloudWatchFullAccess

## Lab Complete

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When you are finished with the lab:

3. Click  at the top of this page and then click **Yes** to confirm that you want to end the lab. A panel will appear indicating that "Lab resources are stopping."
4. Click the **X** in the top right corner to close the panel. Your lab resources are persisted and accessible to you when you start the lab again.