Experiment 5 - Introduction to AWS Identity and Access Management (IAM)

In this lab, you will learn how to:

- Exploring pre-created IAM Users and Groups
- Inspecting IAM policies as applied to the pre-created groups
- Following a real-world scenario, adding users to groups with specific capabilities enabled
- Locating and using the IAM sign-in URL
- Experimenting with the effects of policies on service access

What is IAM?

Identity and access management (IAM) is a framework of business processes, policies and technologies that facilitates the management of electronic or digital identities. With an IAM framework in place, information technology (IT) managers can control user access to critical information within their organizations. Systems used for IAM include single sign-on systems, two-factor authentication, multifactor authentication and privileged access management. These technologies also provide the ability to securely store identity and profile data as well as data governance functions to ensure that only data that is necessary and relevant is shared.

AWS IAM Overview
Guide to IAM

What is AWS IAM?

AWS Identity and Access Management (IAM) is a web service that helps you securely control access to AWS resources. You use IAM to control who is authenticated (signed in) and authorized (has permissions) to use resources.

AWS IAM - Developer Guide

Introduction to Qwiklabs:

Qwiklabs is an online platform that provides end to end training in Cloud Services. This is a platform where you can learn in a live environment anywhere, anytime and on any device. Qwiklabs offers training through various Labs which are specially designed to get you trained in Google Cloud Platform (GCP) as well as Amazon Web Services (AWS). In this course, we will be working with labs that familiarize you with AWS.

Points to note:

1. Qwiklabs will create a temporary AWS account with all the required permissions and access to complete the lab. Do NOT use your personal AWS account**.** To prevent conflicts with any AWS account that you have already signed into on your browser, use Incognito/Private mode.
2. When using the Qwiklabs created AWS account, DO NOT change the default region/ VPC or any other settings that are automatically created by Qwiklabs.
3. The Qwiklabs lab session is timed. After the time limit is reached/ timer runs out, the AWS account will be removed and you'll have to restart the lab from scratch.
4. All code and configuration for the Qwiklabs lab has already been given. The lab experiments do not need you to code anything from scratch, or deviate from this. However, in some instances you may have to name the resources you avail differently, as instructed.
5. DO NOT try to access or avail any other resources and services that have not been described in the lab session or your account will be blocked.
6. Ensure that you have signed into Qwiklabs from your Google account.

Deliverables:

The following screenshots are to be submitted:

a. 1a.png: Showing user-1 successfully added to the S3-Support group.
b. 1b.png: Showing user-2 successfully added to the EC2-Support group.
c. 1c.png: Showing user-3 successfully added to the EC2-Admin group.
d. 2a.png: Showing the "Failed to stop instance" error signed in as user-1.
e. 2b.png: Showing the "Denied permission to list buckets" error on the S3 console signed in as user-2.
f. 2c.png: Showing the successful stopping of instance in the EC2 console signed in as user-3.

Note! Ensure you note down the region and the IAM users sign-in link while performing the lab.

For evaluation:

The submission has 2 parts:

1. Word doc/PDF - add all screenshots, file name: your-srn.doc/docx/pdf
2. Zip file - The zip file contains only the screenshots, no word document. There should be no subfolders within the zip file. No other file extension other than .zip will be considered. file name: your-srn.zip

Click on the following link to go to the Qwiklabs lab: Introduction to AWS (IAM)

Read and follow the instructions carefully to complete the lab.