INTRODUCTION TO SERVERLESS COMPUTING WITH AWS LAMBDA

In this lab, you will learn how to :

- Create an AWS Lambda function
- Configure an Amazon S3 trigger to invoke a Lambda function.
- Upload an image to an S3 bucket for processing.
- Optimize a Lambda function.

Introduction to AWS Educate:

AWS Educate is an online platform built by Amazon that enables users to learn AWS by providing access to online training resources and labs to learn, practice, and evaluate cloud skills without having to create an Amazon or AWS account. In this course, we will be working with AWS Educate, which familiarizes you with AWS.

Setting up an AWS Educate account :

1. Click here to go to AWS Educate.
2. Login into your account and go to **"Badged Courses"**
3. Under badged courses choose the module "**Getting started with serverless**" (https://awseducate.instructure.com/courses/905)
4. Explore the course!

What is AWS LAMBDA FUNCTION?

AWS Lambda is a serverless computing service provided by Amazon Web Services (AWS). A Lambda function is a piece of code that runs in response to events and automatically manages the computing resources required for that code. It's designed to simplify the process of building scalable and cost-effective applications.

Some essential features of AWS LAMBDA FUNCTION are:

- AWS Lambda allows you to run code without provisioning or managing servers.
- Functions are triggered by events like changes in data or HTTP requests.
- Supports multiple languages, including Node.js, Python, Java, and more.
- You pay only for the compute time consumed, with no upfront costs.
- AWS Lambda provides built-in security features, including IAM roles and resource policies.

NOTE : Make sure the account name(containing SRN) on the top right is visible in the screenshots submitted

Deliverables:

Note: Submit only the screenshots mentioned below

1a: Successful creation of the basic AWS lambda function
NOTE: Make sure you name the lambda function as **SRN_NAME** instead of `resize_image`

1b: Successful addition of custom layers to the AWS lambda function

1c: Updation of the lambda_function.py and its deployment..

1d: Updating the environment variables of the lambda function

1e: Successfully Configuring an Amazon S3 trigger to invoke the Lambda function

1f: Successful Upload of an image to the Amazon S3 bucket

1g: Successful updation of the aws lambda function memory to 1024MB

NOTE:

- Please make sure to take the quiz at the end of the lab and lesson. This quiz contains MCQs and failing to answer these will not fetch a badge for this lab.
- The screenshots must be pasted into a Word document and sent in PDF format. The file should be named in this manner **SECTION_SRN_NAME_A1.pdf**
  (Eg. A_PES2UG21CSXXX_Name_A1.pdf)

Points to note:

1. AWS Educate 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 mode.
2. DO NOT change the default region/ VPC or any other settings that are automatically created by AWS Educate.
3. The AWS Educate lab session is timed. When the time limit is reached/the timer expires, the AWS account is deleted, and you must restart the lab from the beginning.
4. All code and configuration for the AWS Educate lab have already been given. You are not required to code anything from scratch or deviate from this for the lab experiments. However, in some cases, you may be required to name the resources you use differently, as instructed.
5. The assignments may require you to deviate from the AWS Educate instructions and use your own code. Instructions will be given.
6. 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.
7. Ensure that you have signed into AWS Educate from your mail account.