# **Assignment – 10**

# **S3, CLI and SDK**

**Due Date:** Feb 13th, 2023

Description:

S3 bucket creation Exercises:

* Bucket name format - cw-us-west-2-101927567363-training-2021-<name>-< cli|sdk >-<encrypt\_mode>
* Create one S3 bucket using AWS CLI
* Create one S3 bucket using AWS Python SDK boto3
* Add below tags to the buckets while creation
  + username: <name>
  + batch: training-2021
  + name: <bucket name>
  + environment: develop
  + region: us-west-2
* Create a S3 bucket with SSE-S3 encryption enabled
  + Example bucket name 1 - cw-us-west-2-101927567363-training-2021-sneelakantam-sdk-aes
  + Example bucket name 2 - cw-us-west-2-101927567363-training-2021-sneelakantam-cli-aes
  + Copy some random files from your local machine to the above created bucket using CLI and boto3
* Create an S3 bucket with no encryption enabled
  + Create one S3 bucket using AWS CLI
  + Create one S3 bucket using AWS Python SDK boto3
  + Example bucket name 1 - cw-us-west-2-101927567363-training-2021-sneelakantam-sdk
  + Example bucket name 2 - cw-us-west-2-101927567363-training-2021-sneelakantam-cli
  + Copy some random files from your local machine to the above created bucket using CLI and boto3
* Copy files from non-encrypted bucket to encrypted bucket using CLI and boto3
* Copy files from encrypted bucket to non-encrypted bucket using CLI and boto3
* Enable versioning on any one bucket that you created above.
* On that versioning enabled bucket, overwrite a file with new content and extract the older version file

Outcomes:

* 4 S3 buckets must be created - 2 must be created using CLI and 2 using boto3
* 4 files with the below naming convention. These files should contain bucket creation, tags, copy files from local, copy files in between encrypted/non-encrypted buckets, and versioning on any one bucket:
  + <name>\_sdk\_aes\_encryption.py
  + <name>\_sdk\_no\_encryption.py
  + <name>\_cli\_aes\_encryption.sh
  + <name>\_cli\_no\_encryption.sh
* Create an airflow DAG with ShortCircuitOperator and BashOperator to perform above functionalities. SHortCircuitOperator for python s3 bucket operations and BashOperator for CLI operations. 4 buckets creation/operations should run in parallel. Take a screenshot of your dag graph view and successful execution of dag.

Submissions:

* Create a folder with your name under “Staffing Training 2023/Submissions”
* Share above folder with me so I can access your submissions
* Create another folder with the assignment name “Assignment 10 - S3, CLI & SDK”
* Copy all the above-created files into that folder
* Update the Assignment Submission Tracker sheet in the Assignments folder