**https://github.com/suvaatnbu/serverlessaaws**

**Assignment 3: Monitor Unencrypted S3 Buckets Using AWS Lambda and Boto3**

**Objective:**To enhance your AWS security posture by setting up a Lambda function that detects any S3 bucket without server-side encryption.

**Task:** Automate the detection of S3 buckets that don't have server-side encryption enabled.

**Instructions:**

1. S3 Setup:

   - Navigate to the S3 dashboard and create a few buckets. Ensure that a couple of them don't have server-side encryption enabled.

2. Lambda IAM Role:

   - In the IAM dashboard, create a new role for Lambda.

   - Attach the `AmazonS3ReadOnlyAccess` policy to this role.

3. Lambda Function:

   - Navigate to the Lambda dashboard and create a new function.

   - Choose Python 3.x as the runtime.

   - Assign the IAM role created in the previous step.

   - Write the Boto3 Python script to:

     1. Initialize a boto3 S3 client.

     2. List all S3 buckets.

     3. Detect buckets without server-side encryption.

     4. Print the names of unencrypted buckets for logging purposes.

4. Manual Invocation:

   - After saving your function, manually trigger it.

   - Review the Lambda logs to identify the buckets without server-side encryption.

ANSWER:

BUCKET NAME: test-bucket-2279/ test-bucket2-2279

**2. Create IAM Role for Lambda**

1. Go to **IAM > Roles > Create role**
2. **Select**: Lambda
3. **Attach policy**: AmazonS3ReadOnlyAccess
4. **Name it**: LambdaS3EncryptionCheckRole



