D Y PATIL INTERNATIONAL UNIVERSITY
AKURDI PUNE

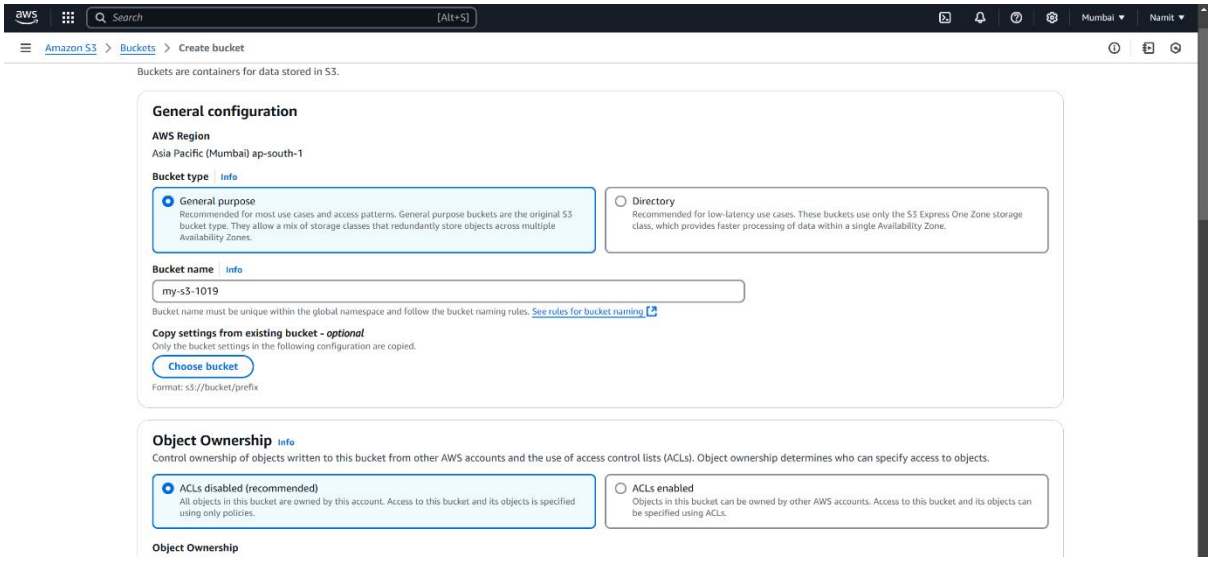
School of Computer Science, Engineering and Applications (SCSEA)
B.C.A. TY (CCSA)
Subject: Advanced Cloud Computing (P)

Name of the Student: Namit Agarwal **PRN:** 20220801019

Title of Practical: Encrypt an S3 bucket using AWS KMS

Step 1: Create an S3 Bucket

1. **Open the S3 Service**:
    - Navigate to the **S3** service in the AWS Management Console.
2. **Create a New Bucket**:
    - Click on **Create bucket**.
    - Enter a unique name for your bucket and configure other settings as needed.



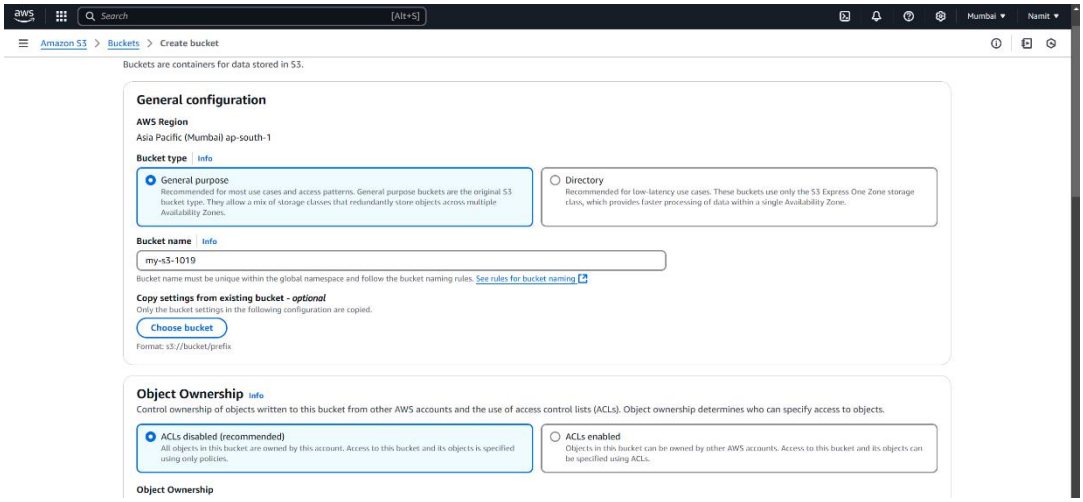
3. **Finalize Bucket Creation**:
    - Scroll down and click **Create bucket**.

Step 2: Enable Default Encryption for the S3 Bucket

1. **Open the Created Bucket**:
    - In the S3 dashboard, click on the name of the bucket you just created.

2. **Navigate to the Properties Tab**:
    - Go to the **Properties** tab in the bucket settings.

3. **Edit the Default Encryption Settings**:
    - Scroll to the **Default encryption** section and click **Edit**.



4. **Select AWS Key Management Service (KMS)**:
    - Under **Server-side encryption settings**, select **AWS Key Management Service keys (SSE-KMS)**.

5. **Choose AWS Managed Key (aws/s3)**:
    - For encryption, select **AWS managed key** (default option) if you don't want to use a custom key.

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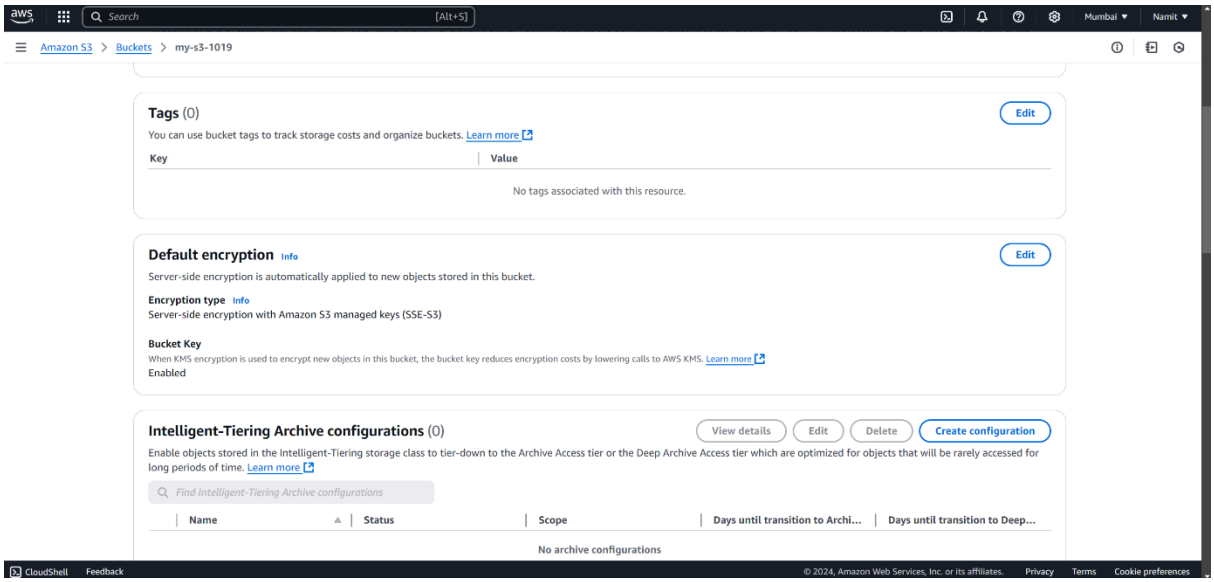
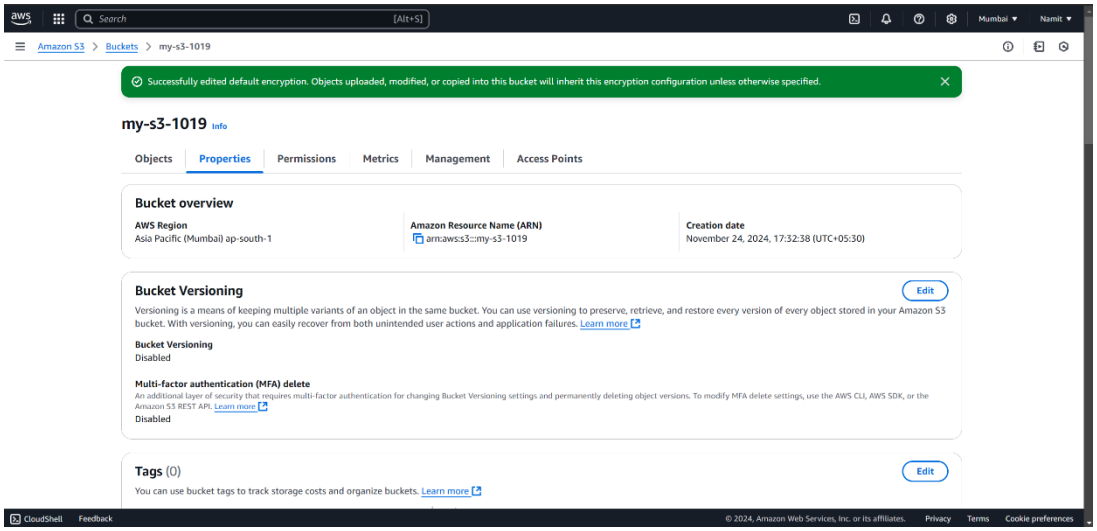


6. **Save Changes**:
   - Click **Save changes** to apply the encryption settings.



Step 3: Upload and Verify Encryption

1. **Upload a File to the Encrypted Bucket**:
   - In your bucket, go to the **Objects** tab and click **Upload**.

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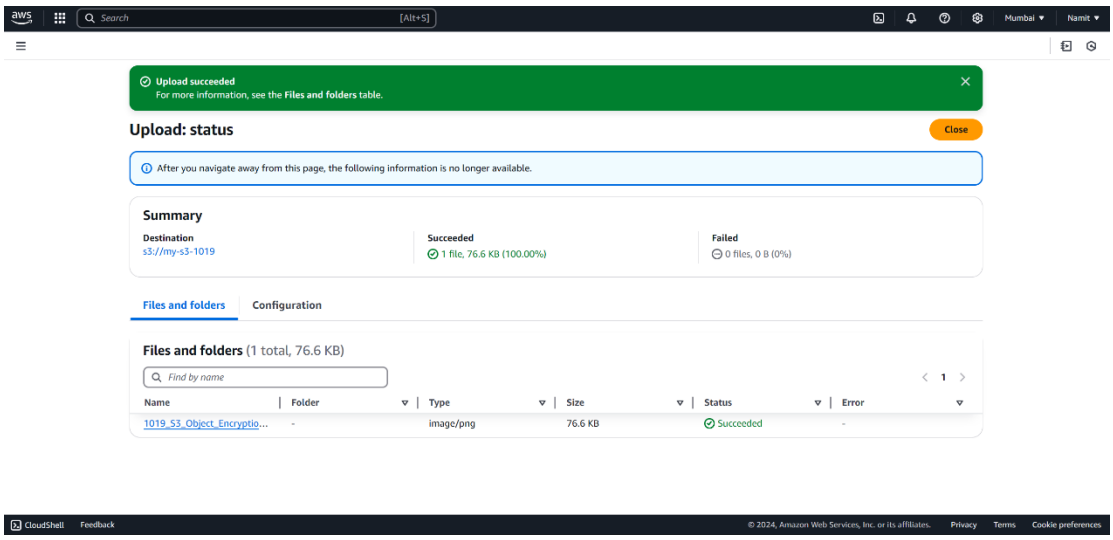
- Select a file from your local system to upload to the bucket and complete the upload process.



2. **Verify Encryption Status**:
   - After uploading, click on the file name to view its **Properties**.
   - In the **Server-side encryption settings**, confirm that **AWS-KMS** encryption is applied with **aws/s3** as the key.

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