Minor Project : AWS S3 – "Image Hosting and Sharing App"

Problem Statement

You are tasked with building a simple **image hosting and sharing solution** for a photography club. The solution should allow users to **upload, store, and access images** securely using **Amazon S3**. The app should also generate **public shareable links** so users can share their work.

Instructions to Complete

1. **Create an S3 Bucket**

   o Go to AWS Management Console → S3.

   o Click **Create Bucket**.

   o Give a unique bucket name: photoclub-image-hosting.

   o Enable **Block Public Access** (keep it ON for security).

   o Choose a region close to you.

2. **Set Bucket Policies**

   o Go to **Permissions → Bucket Policy**.

   o Add a policy to allow public read access only to files in a specific folder (e.g., /public/).

   o Example:

   o {

   o "Version": "2012-10-17",

   o "Statement": [

   o   {

   o   "Effect": "Allow",

   o   "Principal": "*",

   o   "Action": "s3:GetObject",

   o   "Resource": "arn:aws:s3:::photoclub-image-hosting/public/*"

   o   }

   o]

   o }

3. **Enable Versioning**

   o Go to **Properties → Bucket Versioning** → Enable.

   o This ensures older versions of images are preserved.

4. **Upload Images**

   o Create two folders inside the bucket:

      ▪ /public/ → for shareable images

      ▪ /private/ → for private storage

   o Upload sample images.

5. **Generate Pre-signed URLs**

   o Use AWS CLI or SDK to generate time-limited URLs for private images:

   o aws s3 presign s3://photoclub-image-hosting/private/sample.jpg --expires-in 3600

   o This creates a link valid for 1 hour.

6. **Test**

   o Access public images directly via S3 URL.

   o Access private images only via pre-signed URLs.

Deliverable: A working **image hosting solution** with **public/private access**