 

**Placement Empowerment Program**

***Cloud Computing and DevOps Centre***

Use cloud storage : create a storage bucket on your cloud platform and upload/download files. configures access permissions for the bucket

Name: S.KRITHIKA Department: ADS



**Introduction and Overview**

Cloud storage is an essential component of modern computing, allowing users to store, access, and manage files remotely. Cloud platforms such as AWS, Google Cloud, and Azure provide scalable storage solutions that enhance efficiency and security. This document provides a comprehensive guide on creating a storage bucket, uploading and downloading files, and configuring access permissions.

**Objective**

The primary objective of this guide is to help users:

1. Understand the importance of cloud storage over local hosting.
2. Create a storage bucket on a cloud platform.
3. Upload and download files efficiently.
4. Configure access permissions for secure data sharing.

**Importance of Cloud Storage over Local Hosting**

**1. Scalability**

Cloud storage allows businesses and individuals to scale their storage needs dynamically, unlike local hosting, which is limited by physical storage capacity.

**2. Accessibility**

Files stored in the cloud can be accessed from anywhere with an internet connection, providing greater flexibility compared to local storage.

**3. Security**

Cloud providers offer robust security measures such as encryption, access control, and redundancy, ensuring data integrity and protection against data loss.

**4. Cost-effectiveness**

Users pay for the storage they use, reducing the need for expensive on-premises infrastructure.

**5. Automatic Backups**

Most cloud providers offer built-in backup solutions, minimizing the risk of data loss due to hardware failures or accidental deletions.

**Step-by-Step Guide to Creating a Storage Bucket and Managing Files**

**Step 1: Choose a Cloud Provider**

Select a cloud platform such as:

* Google Cloud Storage
* Amazon S3
* Microsoft Azure Blob Storage

**Step 2: Create a Storage Bucket**

1. **Sign in** to the chosen cloud platform.
2. Navigate to the **Storage section**.
3. Click on **Create Bucket**.
4. Provide a unique **Bucket Name**.
5. Choose the **Region** for storage location.
6. Select the appropriate **Storage Class** (Standard, Nearline, Coldline, or Archive).
7. Configure **Access Control** (public or private access).
8. Click **Create** to finalize the bucket creation.

**Step 3: Upload a File to the Bucket**

1. Open the newly created bucket.
2. Click on **Upload Files**.
3. Select the file from your local device.
4. Wait for the upload to complete.

**Step 4: Download a File from the Bucket**

1. Navigate to the file within the bucket.
2. Click on **Download**.
3. The file will be downloaded to your local device.

**Step 5: Configure Access Permissions**

1. Open the **Permissions** tab of the bucket.
2. Click **Add Members**.
3. Enter the **email or identity** of users who need access.
4. Assign roles such as **Viewer, Editor, or Owner**.
5. Set fine-grained permissions if necessary.
6. Click **Save** to apply changes.

**Expected Outcome**

By following this guide, users will achieve the following:

1. Successfully create a cloud storage bucket.
2. Upload and download files securely and efficiently.
3. Configure access permissions to maintain security and control over stored files.
4. Understand the advantages of cloud storage over local hosting.