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**Internship: Cloud Computing Virtual Internship (CODTECH)**

**TASK 3 - Multi-Cloud Storage Using AWS S3 and Microsoft Azure Blob Storage**

**INTERN ID: CT04DR2400**

**Cloud Platform: Amazon Web Services (AWS) and AZURE**

**Duration: 1 MONTH**

### **1. Aim**

The aim of this task is to understand and implement **basic storage services in a multi-cloud environment** by using **Amazon Web Services (AWS)** and **Microsoft Azure**.

This task demonstrates how cloud storage works across different cloud providers.

### **2. Objective**

- To create and use **AWS S3 bucket** for object storage
- To create and use **Azure Blob Storage (Storage Account)**
- To upload files to cloud storage
- To understand **basic security settings**
- To visualize a **multi-cloud architecture**

### **3. Cloud Services Used**

#### **Amazon Web Services (AWS)**

- Amazon S3 (Simple Storage Service)

#### **Microsoft Azure**

- Azure Blob Storage (Storage Account – StorageV2)

### **4. System Requirements**

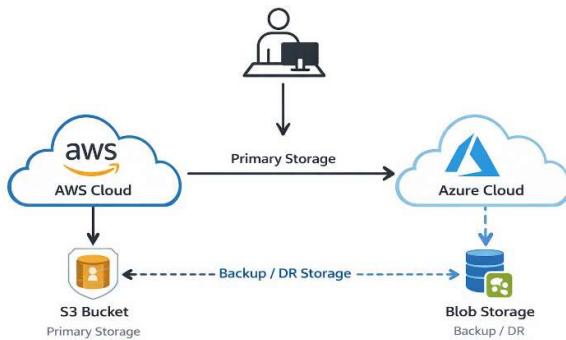
- AWS Free Tier Account
- Azure for Students / Free Azure Account
- Internet connection
- Web browser (Chrome / Edge)

### **5. Architecture Overview**

This task follows a **multi-cloud storage architecture** where:

- AWS S3 stores files in AWS cloud
- Azure Blob Storage stores files in Azure cloud
- User accesses both cloud platforms independently

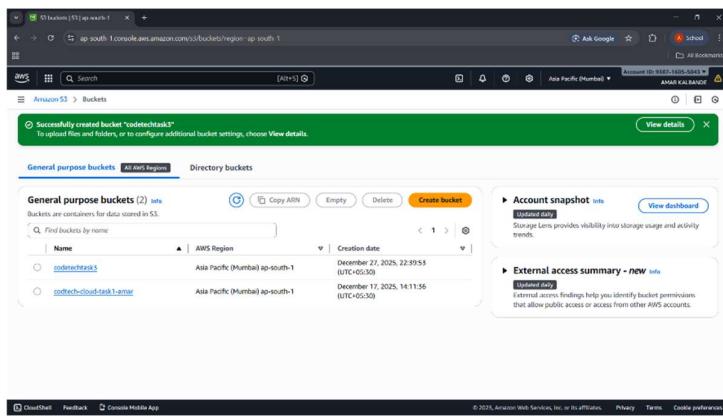
## Multi-Cloud Storage Architecture



## 6. Implementation Steps

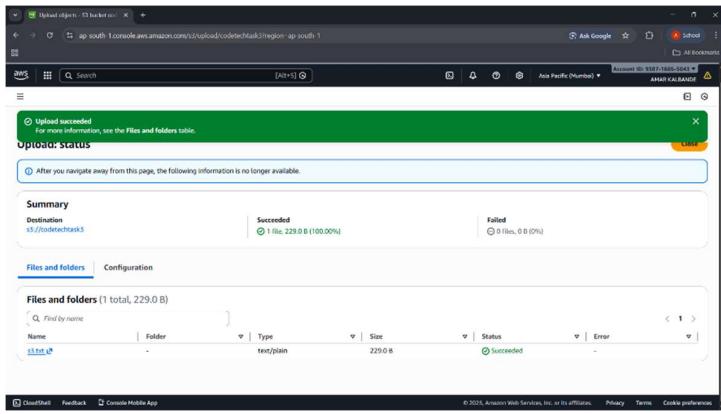
### 6.1 AWS S3 Bucket Creation

1. Logged in to AWS Management Console
2. Navigated to **Amazon S3**
3. Created a new bucket named **codetechtask3**
4. Selected region **Asia Pacific (Mumbai – ap-south-1)**
5. Enabled **Block all public access**



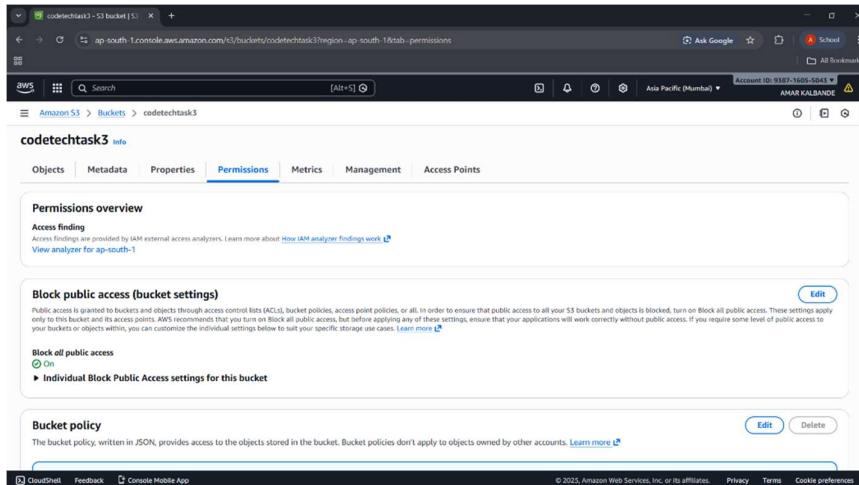
### 6.2 Uploading File to AWS S3

1. Opened the created S3 bucket
2. Uploaded a file named **s3.txt**
3. Verified successful upload



## 6.3 AWS S3 Security Configuration

1. Opened Permissions tab of the bucket
2. Verified Block Public Access = ON
3. Bucket policy not exposed publicly



## 6.4 Azure Storage Account Creation

1. Logged in to Microsoft Azure Portal
2. Created a **Storage Account**
3. Selected:
  - o Resource Group
  - o Location: Central India
  - o Storage type: **StorageV2**
4. Storage account created successfully

The screenshot shows the Microsoft Azure Storage center interface for Blob Storage. The left sidebar lists categories like Overview, All storage resources, Object storage, File storage, Block storage, Data management, Migration, Partner solutions, Management services, and Help. The main area displays a table with one row for 'myresourceblob'. The table columns are Name, Type, Kind, Resource Group, Location, and Subscription. The row shows 'myresourceblob' as a Storage account under 'my\_resource' in Central India, associated with 'Azure for Students'.

Name	Type	Kind	Resource Group	Location	Subscription
myresourceblob	---	Storage account	my_resource	Central India	Azure for Students

## 7. Learning Outcomes

From this task, the following concepts were learned:

- Basics of **cloud object storage**
- Difference between **AWS S3 and Azure Blob Storage**
- Uploading and managing files in cloud
- Importance of **security and access control**
- Understanding **multi-cloud architecture**
- Hands-on experience with **two cloud providers**

## 8. Conclusion

This task successfully demonstrated the use of **multi-cloud storage services** using AWS and Azure.

Files were securely stored in AWS S3 and Azure Blob Storage.

The task helped in understanding real-world cloud storage concepts and provided practical exposure to multi-cloud environments.