St. JOSEPH'S
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OMR, CHENNAI - 119

PLACEMENT EMPOWERMENT PROGRAM

CLOUD COMPUTING AND DEVOPS CENTRE

TASK 13 - Use Cloud Storage Create a storage bucket on your cloud platform and upload/download files. Configure access permissions for the bucket..

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Introduction

Azure Storage provides a scalable, secure, and high-performance platform for managing your data. The most common storage option, **Azure Blob Storage**, is used to store unstructured data such as documents, images, and backups. Through this hands-on exercise, you'll learn how to create a storage bucket (Blob Storage), upload/download files, and configure access permissions.

Objectives

1. Understand the process of creating an Azure Storage Account.
2. Learn how to create and configure a Blob Storage container.
3. Practice uploading and downloading files in Azure Blob Storage.
4. Configure access permissions for secure file sharing.

Steps to Perform Hands-on Exercise

Step 1: Set Up a Storage Account

1. **Log in to the Azure Portal**:
   - Visit Azure Portal.
2. **Create a Storage Account**:
   - Search for **Storage Accounts** in the top search bar and select **+ Create**.
   - Fill in the required details:
     - **Subscription**: Choose your subscription.
     - **Resource Group**: Create a new resource group or select an existing one.
     - **Storage Account Name**: Enter a unique name (e.g., storagehandson).
     - **Region**: Select a nearby region.
     - **Performance**: Choose **Standard** (cost-effective) or **Premium** (low latency).

        - **Redundancy**: Select the desired redundancy level (e.g., LRS, ZRS, GRS).
    - Click **Review + Create**, then **Create**.

Step 2: Create a Blob Storage Container

1. **Navigate to Your Storage Account**:
    - After deployment, click on your storage account.
2. **Add a New Container**:
    - On the left menu, select **Containers** under **Data Storage**.
    - Click **+ Container**.
    - Provide a name for your container (e.g., myblobcontainer).
    - Set **Public Access Level**:
        - **Private**: Files are only accessible by authenticated users.
        - **Blob**: Allows public access to blobs (files) but not the container.
        - **Container**: Public access to both the container and files.
    - Click **Create**.

Step 3: Upload Files to the Container

1. **Open the Container**:
   - Select the newly created container.
2. **Upload Files**:
   - Click **Upload**.
   - Drag and drop files or browse to choose files from your computer.
   - Click **Upload** to complete the process.

Step 4: Download Files from the Container

1. **Select a File**:
   - Navigate to the container and click on a file.
2. **Download the File**:
   - Click **Download** to save the file locally.

Step 5: Configure Access Permissions

1. **Set Container Permissions**:
   - Go to the container, click **Access Policy**, and configure:
     - **Public Access Level**: Set to **Private**, **Blob**, or **Container**.
   - Save the changes.
2. **Generate SAS Token**:

- To grant temporary or restricted access:
  - In the container, click **Shared Access Signature**.
  - Configure start/end time, permissions (e.g., read/write), and click **Generate SAS Token**.
  - Share the SAS URL to allow controlled access.

Outcomes

1. **Hands-on Experience**: Successfully create a storage bucket and container in Azure.
2. **File Management Skills**: Upload and download files using Azure Portal.
3. **Configured Access Permissions**: Securely manage who can access your storage container.
4. **Practical Knowledge**: Learn to use Azure Blob Storage for real-world file storage and sharing scenarios.