



IBM Developer SKILLS NETWORK

Hands on Lab: Creating IBM Cloud Object Storage

Estimated Effort: 20 minutes

Lab overview:

After completing this lab, you will have created an Object Storage instance, a bucket, and added objects to the bucket.

Objectives:

After completing this lab, you will be able to:

- Use your IBM Cloud account to create an instance of Object Storage
- Create a bucket to store data
- Add objects to your bucket
- Share objects in your bucket.

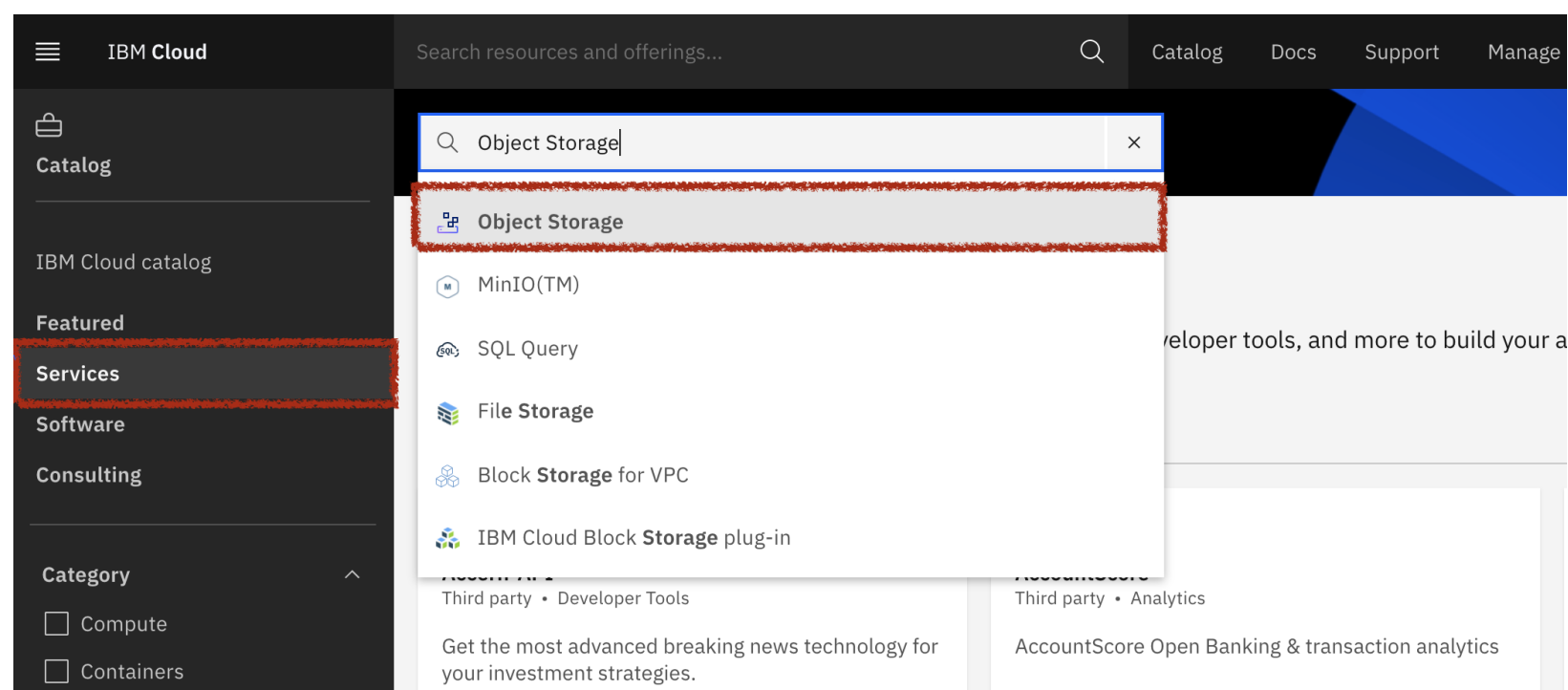
Prerequisites:

You will need an IBM Cloud account to do this lab. If you have not created one already, click on this [link](#) and follow the instructions to create an IBM Cloud account.

Create an IBM Cloud Object storage

Task 1: Create an instance of IBM Cloud Object Storage:

1. Log in to your IBM Cloud account and open the IBM Cloud Catalog <https://cloud.ibm.com/catalog>.
2. On the Catalog page, make sure the **Services** tab is selected and search and select **Object Storage**:



3. On the [Cloud Object Storage \(COS\) page](#), choose the Lite plan. You can use the name that is shown in Service name or rename it as you want, accept the Default resource group, and then click Create.

IBM Cloud

Search resources and offerings...

Q

Catalog

Docs

Support

Manage

Catalog / Services /

Cloud Object Storage

Author: IBM • Date of last update: 2020-12-11 5:07 AM • Docs • API docs

Create

About

Select a pricing plan

Displayed prices do not include tax. Monthly prices shown are for country or region: India

Plan	Features	Pricing
Lite	<div>1 COS Service Instance</div> <div>Storage up to 25 GB/month</div> <div>Up to 2,000 Class A (PUT, COPY, POST, and LIST) requests per month</div> <div>Up to 20,000 Class B (GET and all others) requests per month</div> <div>Up to 10 GB/month of Data Retrieval</div> <div>Up to 5GB of egress (Public Outbound)</div> <div>Applies to aggregate total across all storage bucket classes</div>	

The Lite service plan for Cloud Object Storage includes Regional and Cross Regional resiliency, flexible data classes, and built in security.
Lite plan services are deleted after 30 days of inactivity.

 Free || Standard | There is no minimum fee, so you pay only for what you use. [View storage class pricing](#) | |

Configure your resource

Summary

Cloud Object Storage

Free

Region: Global

Plan: Lite

Service name: Cloud Object Storage-kp

Resource group: Default

Create

Add to estimate

View terms

4. Once the Cloud Object Storage (COS) instance is created, you will automatically be directed to the Cloud Object Storage page. Here you can create a bucket and invite users for your Cloud Object Storage instance.

IBM Cloud

Search resources and offerings...

Q

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Manage

Getting started

Buckets

Integrations

New!

Endpoints

Service credentials

Connections

Usage details

Plan

Cloud Object Storage

An enterprise cloud object storage solution

Welcome to your new IBM® Cloud Object Storage service! It provides unstructured data storage for cloud applications. To get started - create a bucket, upload objects and set up access policies to allow other users to work with your data.

Learn More

Overview

Create bucket

Access Management

Task 2: Create a Bucket to store your data:

1. On your new Object Storage instance page, click Create Bucket.

Create a bucket

One of the crucial steps in designing your IBM® Cloud Object Storage is organizing your data into buckets to meet your needs. Few things to consider while creating a bucket - availability, data sovereignty, how often do you need to access the data

Create Bucket

Overview

Create bucket

Access Management

2. On the Create a bucket page, you can create a predefined bucket.

Create bucket

Get started by creating a bucket to store unstructured data. A bucket is a storage resource available in IBM Cloud Object Storage service. The bucket can be used to organize objects (storage data) along with their metadata. Create a custom bucket of your own, or choose from our pre-defined configurations.

Custom bucket

Customize your bucket

Create a bucket by selecting bucket configurations that meet your object storage needs.

→

Predefined buckets

Quickly get started

Create a Smart Tier storage class bucket in a region close to you and a service credential to connect your application.

Show more ▾

→

Archive your data

Create a Smart Tier storage class bucket in a region close to you with an archive rule and a service credential to connect your application.

Show more ▾

→

Host a static website

Create a Smart Tier storage class bucket in a region close to you with static web hosting configuration and a service credential to connect your application.

Show more ▾

→

3. Use the pre-assigned name for your bucket or enter your name and review the pre-configured settings and service credentials and click Next.

Cloud Object Storage-ev ✔ Active Add tags ✎

- ☒ Create bucket with credentials

☐ Upload files (objects)
Optional

☐ Test your bucket
Optional

Create bucket with credentials [View bucket details >](#)

Create a Smart Tier storage class bucket in a region close to you and a service credential to connect your application

Unique bucket name [View naming rules](#)

cloud-object-storage-ev-cos-standard-9at

Cancel

Next →

4. The Bucket page appears where you can begin adding objects to the bucket.

Upload files (objects) [View bucket details >](#)

Optional

Upload files (objects) to your Standard bucket. This is an optional step that can also be completed at a later time.

Upload

25GB max file size [See file \(object\) and folder guidelines](#)

Drag and drop files (objects) here or click to upload

Task 3: Add Objects to your Bucket:

1. On the Bucket page, click on **View Details** and the details for the bucket are displayed.

Resource list / Cloud Object Storage-ev Active Add tags

Create bucket with credentials

Upload files (objects)
Optional

Test your bucket
Optional

Test your bucket

View bucket details

Optional

Copy the sample JS script below to your local machine to automate the upload and download files (objects) to your account. Modify the code to fit your needs. [Learn more](#)

Node.js script to upload a file (object) to the created bucket

```
/**
 * CONFIG PARAMETERS
 * useHmac: Use HMAC credentials - defaults to false
 * bucketName: The name of the selected bucket
 * serviceCredential: This is a service credential created in a service instance
 *
 * INSTRUCTIONS
 * - Install Node.js 10 or above, Then run the following commands
 * - npm i ibm-cos-sdk
 * - npm i request-promise
 * - node <scriptName>
 *
 * ===== Example Configuration =====
 * export default {
 *   useHmac: false,
```

Show more

Bucket details

Quick start bucket presets

Bucket name
cloud-object-storage-ev-cos-standard-pgk

Resiliency
Regional

Location
jp-tok

Storage class
Smart Tier

Service credentials

Service credential
cloud-object-storage-ev-cos-standard-pgk

Role
Writer

2. In the object storage main page you can now click on **Buckets** and see all the buckets.

Resource list / Cloud Object Storage-ev Active Add tags

Aspera transfers

Details

Actions...

Getting started

Buckets

Integrations New!

Endpoints

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Connections

Usage details

Plan

Search

Create bucket

Name	Public access	Location	Storage class	Created
cloud-object-storage-ev-cos-standard-9at		jp-tok	Smart Tier	2021-01-28 10:38 PM
cloud-object-storage-ev-cos-standard-fc4		jp-tok	Smart Tier	2021-01-28 10:40 PM
cloud-object-storage-ev-cos-standard-pgk		jp-tok	Smart Tier	2021-01-28 10:55 PM

Items per page: 10

1-10 of all items

page 1

3. Click the name of the bucket to which you want to add objects.

4. The Objects page appears where you can click Upload and select Files or Folders from the dropdown. You can also drag and drop files or folders into the space.

Objects

Reminder: Objects are uploaded in multiple parts to optimize transfer performance. If an upload is interrupted before the transfer is completed, then the parts of the incomplete object that were uploaded prior to the interruption will count towards billable storage. While the console will alert users to incomplete multipart uploads, it is encouraged to routinely check for and clear out incomplete uploads using the REST API or an SDK. [Learn more](#)

Prefix filter

Upload

Files (objects)

Folders

Object name

Archived

Size

Last modified

Objects

Drag and drop files (objects) or folders to upload. An object is your data in fixed form.

Items per page: 10

1-10 of all items

page 1

Drag and drop files (objects) or folders to upload

5. For this lab, we’ve provided an HTML file that you can use to add to your bucket. Right click on [Index.html](#)

and click on **Save Link as** or **Save Page as** to save the index.html file to your computer.

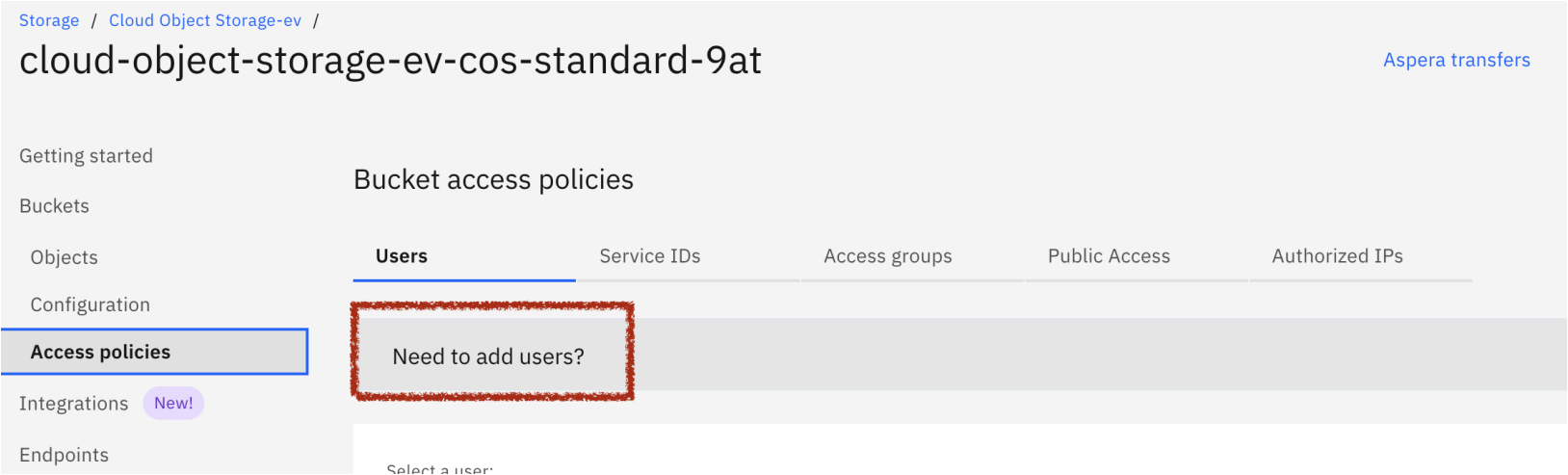
6. (Optional) Edit the index.html file to customize it if you like.

7. Upload the index.html file from your computer to your COS bucket.

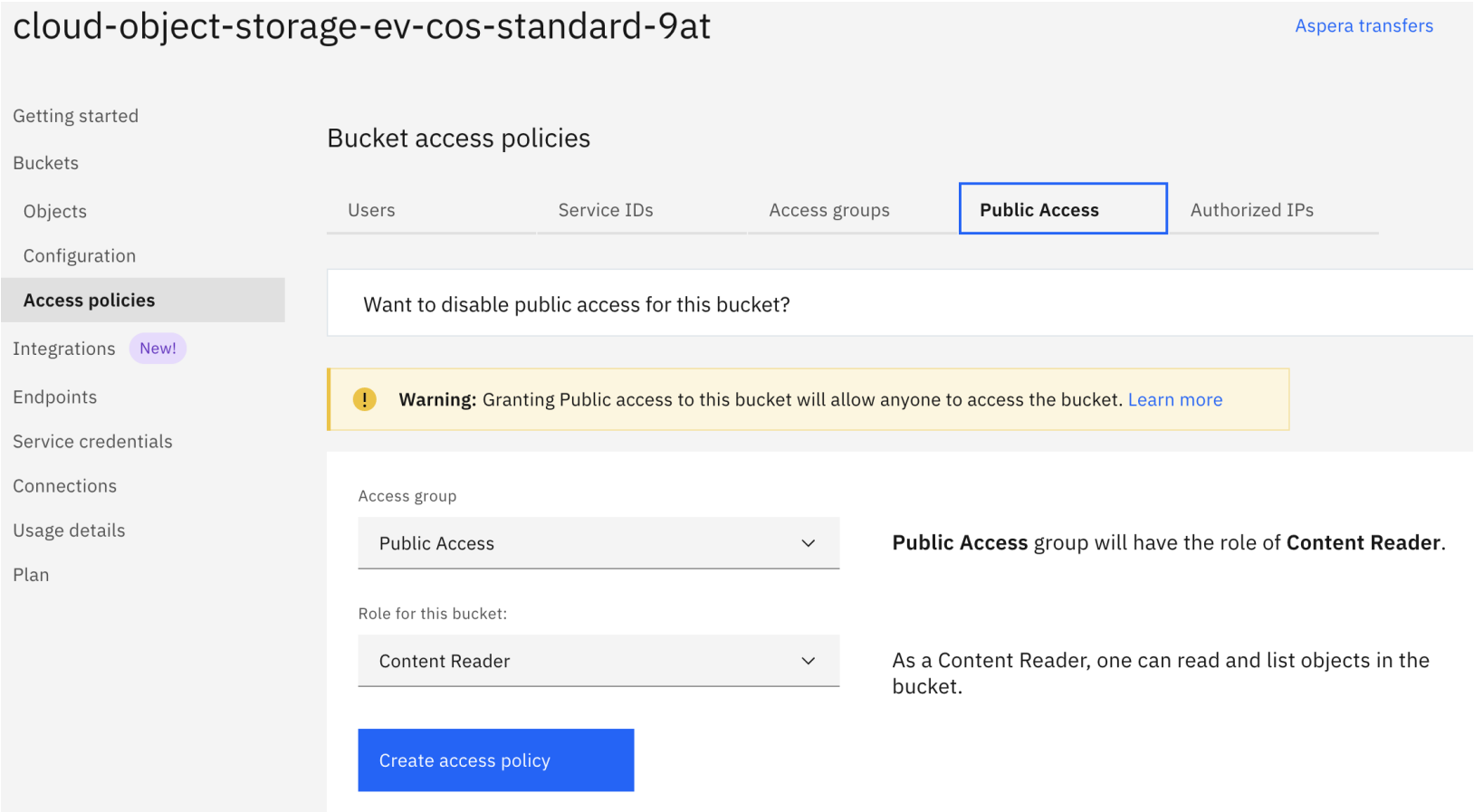
Task 4: Share Objects in your Bucket:

If you need to share objects in your buckets with other users, you can setup Access Policies. You can set access policies for specific users and groups, or you can choose to make certain buckets public so that anyone can access them (e.g. if you want to host static files on your website).

1. In the navigation pane under buckets, click Access Policies. On the Bucket access policies page, click Need to Add users? to add user access for your bucket.



2. You can select users if they’ve already been added and select roles for this bucket. But for this exercise we need to provide public access to the file we added to the bucket. Click **Public Access** and notice **Public Access** appears in the Access group, and then click **Create Access** policy.



3. When you click on **Public Access**, a popup window appears. Click **Enable to allow public access**.

Enable public access ✕

Granting public access will allow anyone to access this bucket and read all the objects in it. Are you sure you want to enable this functionality?



4. Next, a popup window appears that confirms you have provided public access to the Html file.
5. Next, click Objects in the navigation pane to return to the screen where you can find the URL for the Html file that you loaded to your bucket.
6. On the Objects page, click the ellipses ("...") at the end of the HTML file you added to your bucket, and then select *Object Details* from the list. A details window pops up. Click the :clipboard: icon to copy and get the **Object Public URL** for the HTML file to share this file with others.

Overview

Lifecycle

Object details

Last modified

2022-01-31 10:14 AM

Tags

0 Tags

Storage class

Smart Tier

Object size

331 bytes

Object Public URL ⓘ

https://cloud-object-storage-ev1-cos-standard

Copy to clipboard

Download object

Delete object

7. You can also test the public URL that you copied by opening it in your browser.

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Changelog

Date	Version	Changed by	Change Description
2021-07-28	2.1	Rav	Removed erroneous instruction for others to sign file, updated links, formatting
2021-01-28	2.0	Lavanya	Updated Lab instructions and screenshots and migrated to GitLab
2020-03-10	1.1	Rav	Updates for improved flow and sharing
2020-01-31	1.0	Priya	Initial version created

