Exercise: Create a Cloud Storage Bucket

In this exercise, you will:

- Navigate to the Cloud Storage console page
- Create a bucket
- Specify name, region, storage class, access controls, storage protection parameters

Navigate to the Cloud Storage console page to see a list of buckets, such as shown in Figure 1. Note: some buckets are created by Google Cloud services while others are created by users of Google Cloud.

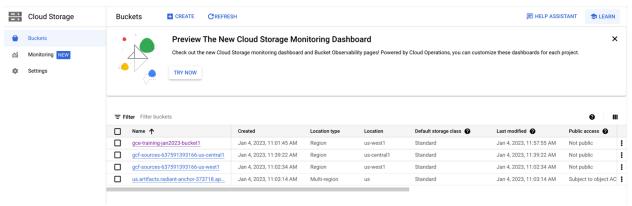


Figure 1. Example Cloud Storage console page listing existing buckets

From the Cloud Storage console, click on the Create button at the top to display a page like Figure 2.

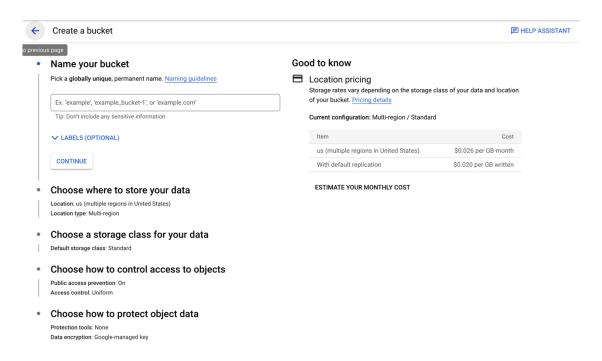


Figure 2. The first part of the Create Bucket dialog

The first step is to provide a name for the bucket. Names must be globally unique, that is, they cannot match any existing bucket, including buckets created by other customers.

You will also choose where to store your data. Choose a single region since it is the lowest cost option. (See Figure 3)

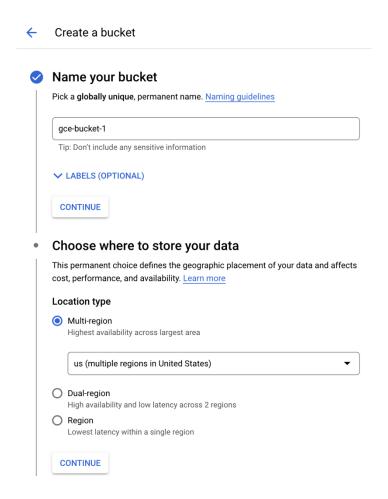


Figure 3. Naming a bucket and choosing where to store data

Figure 4. shows some options for where you can store your data.

Choose where to store your data

This permanent choice defines the geographic placement of your data and affects cost, performance, and availability. Learn more

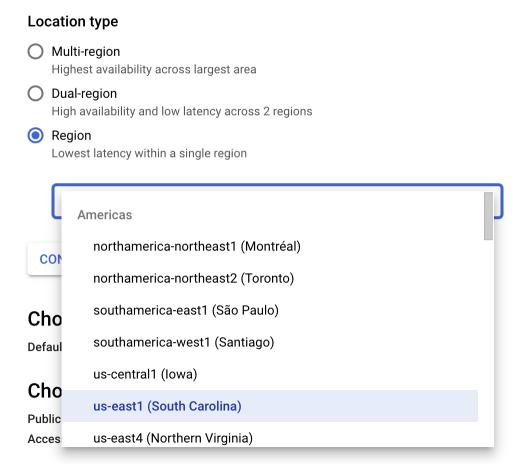


Figure 4. Partial listing of regions where you can store data in Cloud Storage

Figure 5. shows options for storage class. Choose Standard class storage since it is the best option for frequently accessed data.

Choose a storage class for your data

A storage class sets costs for storage, retrieval, and operations, with minimal differences in uptime. Choose if you want objects to be managed automatically or specify a default storage class based on how long you plan to store your data and your workload or use case. <u>Learn more</u>

Autoclass Automatically transitions each object to hotter or colder storage based on objectlevel activity, to optimize for cost and latency. Recommended if usage frequency may be unpredictable. Can be changed to a default class at any time. Pricing details Set a default class Applies to all objects in your bucket unless you manually modify the class per object or set object lifecycle rules. Best when your usage is highly predictable. Can't be changed to Autoclass once the bucket is created. Standard Best for short-term storage and frequently accessed data Nearline Best for backups and data accessed less than once a month Coldline Best for disaster recovery and data accessed less than once a quarter Archive Best for long-term digital preservation of data accessed less than once a year **CONTINUE**

Figure 5. Options for type of storage class

Figure 6. shows options for controlling access to objects. Choose Uniform access control; this is the Google Cloud recommended way to control access to objects.

Choose how to control access to objects

Prevent public access

Restrict data from being publicly accessible via the internet. Will prevent this bucket from being used for web hosting. Learn more

Enforce public access prevention on this bucket

Access control

Uniform

Ensure uniform access to all objects in the bucket by using only bucket-level permissions (IAM). This option becomes permanent after 90 days. Learn more

O Fine-grained

Specify access to individual objects by using object-level permissions (ACLs) in addition to your bucket-level permissions (IAM). Learn more

CONTINUE

Figure 6. Options for access control

The last configuration parameter Is object data protection. Choose None.

Figure 7. shows the last configuration options which include object retention policies and object versioning. Choose None.

Choose how to protect object data

Your data is always protected with Cloud Storage but you can also choose from these additional data protection options to prevent data loss. Note that object versioning and retention policies cannot be used together.

Protection tools

- None
- Object versioning (best for data recovery)

For restoring deleted or overwritten objects. To minimize the cost of storing versions, we recommend limiting the number of noncurrent versions per object and scheduling them to expire after a number of days. Learn more

Retention policy (best for compliance)

For preventing the deletion or modification of the bucket's objects for a specified

minimum duration of time after being uploaded. Learn more

✓ DATA ENCRYPTION



Figure 7. Options for protecting objects

Click the Create button to create the bucket. Return to the Cloud Storage console page to see a list of buckets, which should now include the bucket you just created.