Google Cloud Storage (GCS)

Google Cloud Storage is a product for storing a wide range of diverse data objects. Cloud storage may be used to store both live and archival data. It has guarantees of scalability (can store increasingly large data objects), consistency (the most updated version is served on request), durability (data is redundantly placed in separate geographic locations to eliminate loss), and high availability (data is always available and accessible).

Let's take a brief tour through creating and deleting a storage bucket, as well as uploading and deleting files from a cloud storage bucket.
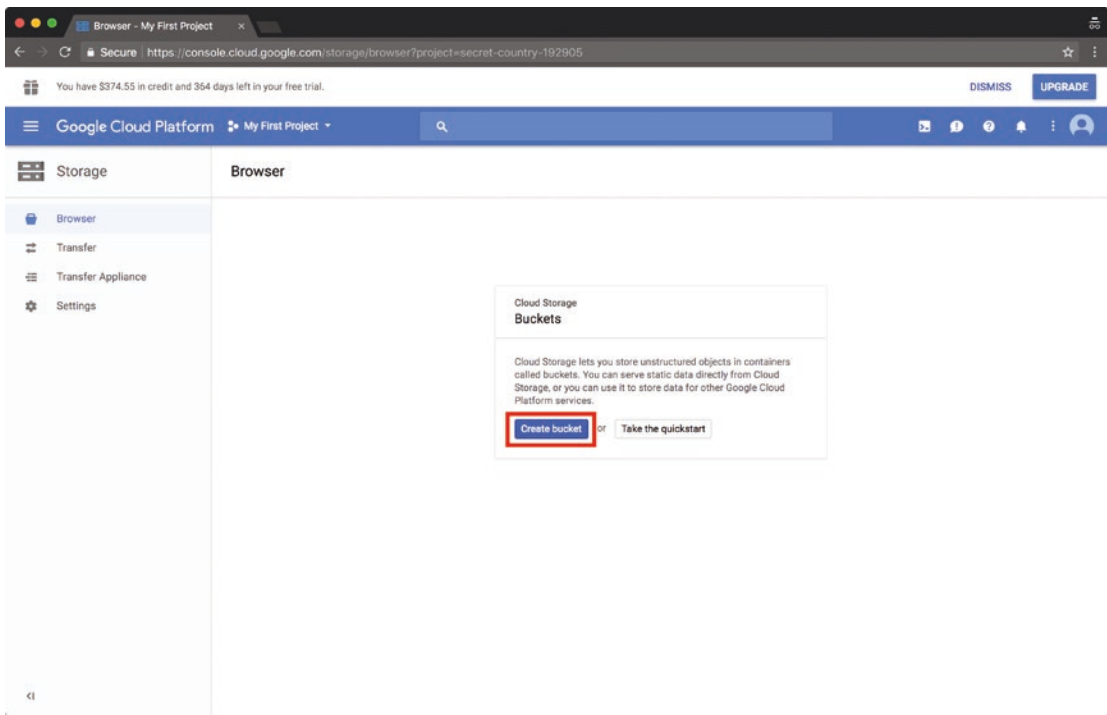
Create a Bucket

A bucket, as the name implies, is a container for storing data objects on GCP. A bucket is the base organizational structure on Cloud Storage. It is similar to the topmost directory on a file system. Buckets may have a hierarchy of sub-folders containing data assets.
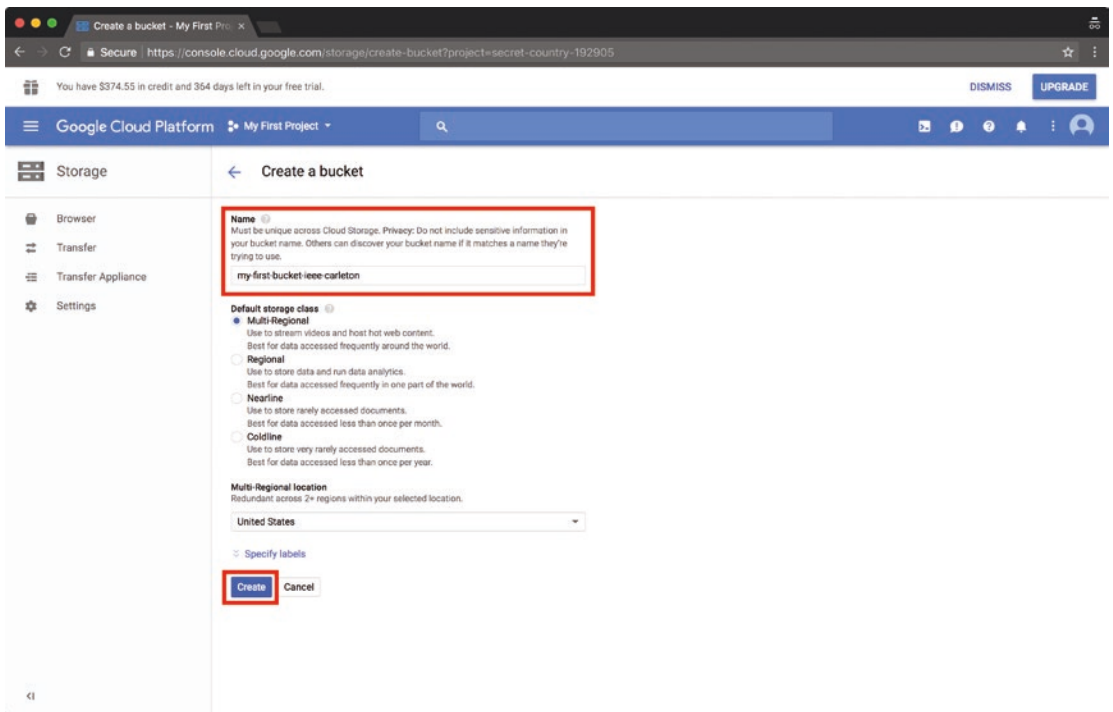
To create a bucket,

1. Click 'Create bucket' on the cloud storage dashboard as shown in Figure 4-1.

2. Give the bucket a unique name (see Figure 4-2). Buckets in GCP must have a global unique name. That is to say, no two storage buckets on Google Cloud can have the same name. A common naming convention for buckets is to prefix with your organization's domain name.

3. Select a storage class. A multi-region storage class is for buckets frequently accessed all over the world, whereas the cold-line storage is more or less for storing backup files. For now, the default selection is okay.

4. Click 'Create' to set up a bucket on Google Cloud Storage.

Figure 4-1. *Cloud Storage Console*

Figure 4-2. *Create a bucket*

Uploading Data to a Bucket

Individual files or folders can be uploaded into a bucket on GCS. As an example, let's upload a file from the local machine.

To upload a file to a cloud storage bucket on GCP,

1. Click 'UPLOAD FILES' within the red highlight in Figure 4-3.

2. Select the file from the file upload window, and click 'Open' as shown in Figure 4-4.

3. Upon upload completion, the file is uploaded as an object in GCS bucket (see Figure 4-5).