 **Prepare Your Environment:**

* Enable BigQuery API in GCP

**Via Google Cloud Console (UI)**

1. Go to the **Google Cloud Console API Library**.
2. Make sure you have the **correct project** selected at the top.
3. In the search bar, type **"BigQuery API"**.
4. Click on **BigQuery API** in the search results.
5. Click the blue **"Enable"** button.

**Via Terraform (if you're using IaC)**

A close-up of a computer screen

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* Create a GCP service account with BigQuery Admin + Storage Viewer roles.

**Go to the Service Accounts page:**

https://console.cloud.google.com/iam-admin/serviceaccounts

**Click “+ CREATE SERVICE ACCOUNT”**

**Name**: github-bigquery-upload

**ID**: Auto-generated (or choose your own)

**Description**: For GitHub CI/CD to load data into BigQuery

**3. Grant access to the service account**

Add the following roles:

**BigQuery Admin** (roles/bigquery.admin)

**Storage Viewer** (roles/storage.objectViewer)

Click **Continue**.

**Create and download a key**

After the service account is created, click into it.

Go to the **"Keys"** tab.

Click **“Add Key” → “Create new key” → JSON**.

Download the key — **this is what you'll upload as a GitHub Secret**.

* Generate a JSON key and store it **securely** in GitHub Secrets.

navigate to your repo.

**Go to Secrets**

Click on **Settings** (top of the repo)

In the left sidebar, click **"Secrets and variables"** → **"Actions"**

Click the **"New repository secret"** button

**Add a New Secret**

**Name**: GCP\_SA\_KEY

**Value**: Open the downloaded JSON key file (e.g., github-bigquery-sa-key.json) in a text editor.

Copy the **entire contents**, including the {} brackets.

**Paste** the full JSON into the value field

Click **"Add secret"**

**HOW THE KEY LOOKS LIKE IN THE YML FILE**

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**Set Up Your Flat File in GitHub:**

Flatfile.txt is ready in the repo. Hsayeed1/testing/flatfile.txt

**Create a GitHub Actions Workflow (CI/CD):**

**create the YAML file inside the .github/workflows/ folder in your repo — GitHub won’t run it otherwise.**

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(not best practice to do it in main branch)

A screenshot of a computer program

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Breakdown of yml file

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