

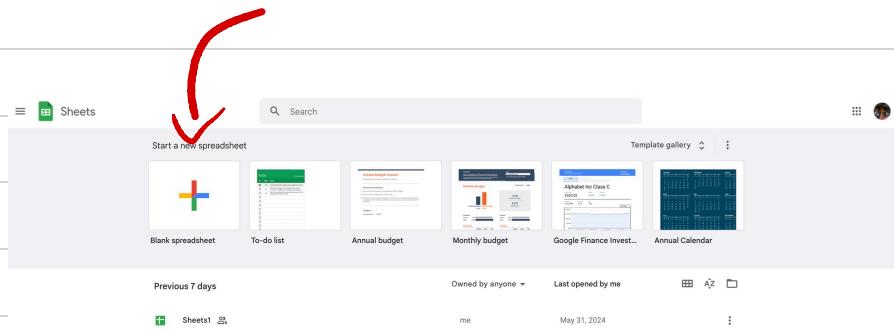


Plan of Action

- ~ Go to google link
- Make project
 - ↳ go to credentials
- Create service account
- Click Manage Service Account
- Click on your own email you created
- Select keys at the top
- click "add key"
- click JSON
- Add that email to Sheet ^{JSON} ~~keys~~
- Walk through code

Way 1: Secure data basing using a Service Account

Step 1: Create a blank Google Sheet



Step 2: Go to your Google Cloud

Link: console.cloud.google.com/apis/library

Step 3: Create a new project

Welcome to the API Library

The API Library has documentation, links, and a smart search experience.

Search for APIs & Services

VIEW ALL (23)

Filter Type to filter

Visibility

- Public (464)
- Private (2)

Category

- Analytics (10)
- Big data (21)
- Databases (7)
- Machine learning (13)
- Maps (23)
- Developer tools (24)
- Compute (11)

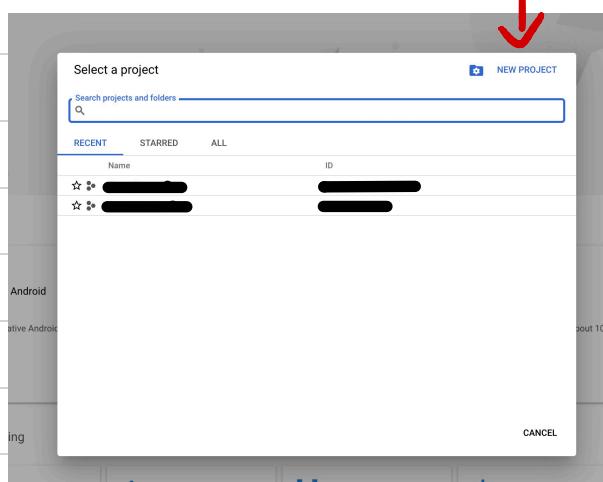
Maps

- Maps SDK for Android (Google) Maps for your native Android app
- Maps SDK for iOS (Google) Maps for your native iOS app
- Maps JavaScript API (Google) Maps for your website
- Places API (Google Enterprise API) Get detailed information about 100 million places
- Roads API (Google Enterprise API) Snap-to-road functionality to accurately trace GPS breadcrumbs.

VIEW ALL (13)

Machine learning

- Dialogflow API (Google Enterprise API) Builds conversational interfaces
- Cloud Vision API (Google Enterprise API) Image Content Analysis
- Cloud Natural Language API (Google Enterprise API) Provides natural language
- Cloud Speech-to-Text API (Google Enterprise API) Speech recognition
- 文-A (Google Enterprise API) Integrates text translation into your



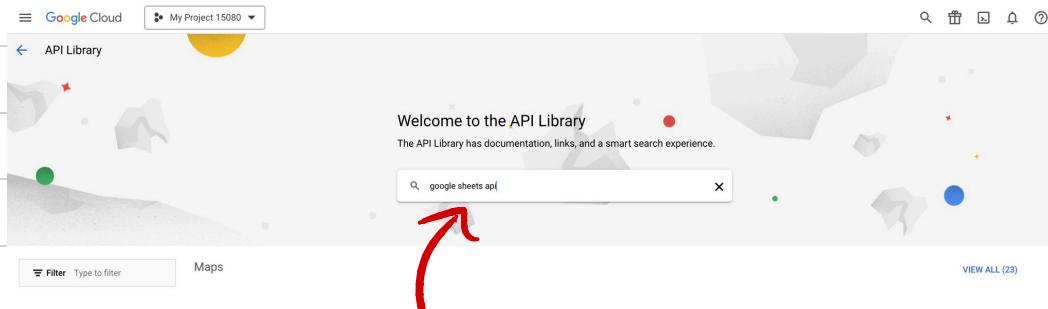
Step 4: Select your new project and click on “APIs & Services”

A screenshot of the Google Cloud Dashboard for project "My Project 15080". The left sidebar shows pinned products like Cloud overview, Solutions, APIs & Services, Billing, IAM & Admin, Marketplace, Compute Engine, Kubernetes Engine, Cloud Storage, BigQuery, VPC network, Cloud Run, SQL, Security, and Google Maps Platform. A red arrow points from the top-left towards the APIs & Services link. The main content area has tabs for DASHBOARD, ACTIVITY, and RECOMMENDATIONS. Under DASHBOARD, there's a "Project info" card with details: Project name (My Project 15080), Project number (504635945284), and Project ID (absolute-realm-425411-b5). Below it is a "Resources" card listing BigQuery, SQL, Compute Engine, Storage, Cloud Functions, and Cloud Run. To the right is a "APIs" card showing requests per second over time (6:30, 6:45, 7 AM, 7:15) with values 1.0, 0.8, 0.6, 0.4, 0.2, and 0 respectively. A "No data is available for the selected time frame" message is displayed.

Step 5: Enable your API

A screenshot of the APIs & Services page. The left sidebar shows "Enabled APIs & services", "Library", "Credentials", "OAuth consent screen", and "Page usage agreements". The main content area has a "Search" bar and a "ENABLE APIs AND SERVICES" button with a plus sign. A red arrow points from the bottom-left towards the enable button. A message in the center says: "You don't have any APIs available to use yet. To get started, click "Enable APIs and services" or go to the API library".

Step 6: Selecting the Google Sheets API



Type in “google sheets api” or go to

<https://console.cloud.google.com/apis/library/sheets.googleapis.com>



A screenshot of the Google Cloud API Library results page. The search bar at the top has "google sheets api" typed in. On the left, there are filters for "Visibility" (Public) and "Category" (Google Enterprise APIs). In the center, there's a result card with a green icon of a document with a grid. The card is titled "Google Sheets API" and "Google Enterprise API". It includes the subtext "With the Google Sheets API, you can create and modify spreadsheets data in Google Sheets." A red box highlights this result card.

Step 7: Enable the API

← Product details



Google Sheets API

[Google Enterprise API](#)

Read and write Google Sheets data

[ENABLE](#)

[TRY THIS API](#)

Step 8: Create Credentials

← API/Service Details

[DISABLE API](#)

To use this API, you may need credentials.

[CREATE CREDENTIALS](#)



Google Sheets API

Reads and writes Google Sheets.

By Google Enterprise API

Service name
sheets.googleapis.com

Type
Public API

Status
Enabled

Documentation
[OVERVIEW](#) [QUICKSTARTS](#) [API REFERENCE](#)

Explore
[TRY IN API EXPLORER](#)

METRICS

QUOTAS & SYSTEM LIMITS

CREDENTIALS

Step 8 cont.

Create credentials

① Credential Type

Which API are you using?

Different APIs use different auth platforms and some credentials can be restricted to only call certain APIs.

Select an API *
Google Sheets API



What data will you be accessing? *

Different credentials are required to authorize access depending on the type of data that you request. [Learn more](#)

User data Data belonging to a Google user, like their email address or age. User consent required. This will create an OAuth client.

Application data Data belonging to your own application, such as your app's Cloud Firestore backend. This will create a service account.

NEXT

② Your Credentials

① Service account details

Service account name *
Project_1

Display name for this service account

Service account ID *
project-1

Email address: project-1@██████████.iam.gserviceaccount.com

Service account description

Describe what this service account will do

CREATE AND CONTINUE

② Grant this service account access to project (optional)

③ Grant users access to this service account (optional)

DONE CANCEL

5

6 Grant this service account access to project (optional)

Grant this service account access to My Project 15080 so that it has permission to complete specific actions on the resources in your project. [Learn more](#)

Select a role
Filter by role or permission

IAM condition (optional) ?



Quick access

Currently used

Basic

By product or service

Access Approval

Access Context Manager

Actions

Roles

Owner

Owner
Optional)

Role (optional)

3

G

DONE

MANAGE ROLES



5 Grant users access to this service account (optional)

Grant access to users or groups that need to perform actions as this service account. [Learn more](#)

Service account users role

Grant users the permissions to deploy jobs and VMs with this service account

Service account admins role

Grant users the permission to administer this service account

DONE CANCEL

9

7. Must give owner permissions

Step 9: Go to the Credentials Page

A screenshot of the Google Cloud Platform interface. The top navigation bar shows "Google Cloud" and "My Project 15080". The search bar contains "Search (/) for resources, docs, products, and more" with a "Search" button. Below the navigation is a toolbar with icons for trash, copy, refresh, and more. The main menu on the left is "APIs & Services" with sub-options "Enabled APIs & services" (selected), "Library", "Credentials" (highlighted with a red arrow), "OAuth consent screen", and "Page usage agreements". The central content area is titled "API/Service Details" for the "Google Sheets API". It says "To use this API, you may need credentials." A "CREATE CREDENTIALS" button is at the top right. Below it, the "Google Sheets API" is described as "Reads and writes Google Sheets." by "Google Enterprise API". The table shows the service name "sheets.googleapis.com", type "Public API", and status "Enabled". To the right are "Documentation" links (Overview, Quickstarts, API Reference) and an "Explore" link ("TRY IN API EXPLORER").

You should see your new service account

A screenshot of the Google Cloud Platform interface, specifically the "Credentials" page under "APIs & Services". The top navigation bar and search bar are identical to the previous screenshot. The main menu on the left shows "Enabled APIs & services" selected. The central content area is titled "Credentials" with a "+ CREATE CREDENTIALS" button and "RESTORE DELETED CREDENTIALS" options. A warning message says "Create credentials to access your enabled APIs." with a "Learn more" link. Another warning says "Remember to configure the OAuth consent screen with information about your application." with a "CONFIGURE CONSENT SCREEN" button. Below these are sections for "API Keys", "OAuth 2.0 Client IDs", and "Service Accounts". A red oval highlights the "Service Accounts" section, which lists two entries: "Email" and "project-16[REDACTED]". A red arrow points from the bottom left towards this highlighted area.

Step 10: Creating a Service account key

This screenshot shows the 'API Keys' section of the Google Cloud 'Credentials' page. It displays a table with columns for Name, Creation date, Restrictions, and Actions. A red arrow points to the 'Actions' column for the first row, which corresponds to the 'project_1@...' service account.

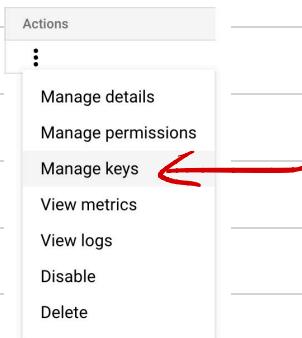
| Name | Creation date | Restrictions | Actions |
|---------------|---------------|--------------|--|
| project_1@... | | | Manage service account |

Go to actions

This screenshot shows the 'Service accounts' section of the Google Cloud 'Credentials' page. It displays a table with columns for Email, Status, Name, Description, Key ID, Key creation date, OAuth 2 Client ID, and Actions. A red arrow points to the 'Actions' column for the first row, which corresponds to the 'project_1@...' service account.

| Email | Status | Name | Description | Key ID | Key creation date | OAuth 2 Client ID | Actions |
|---------------|---------|-----------|-------------|--------|-------------------|-------------------|-------------------|
| project_1@... | Enabled | Project_1 | No keys | | | | ⋮ |

Step 10: Continued



Project_1

DETAILS PERMISSIONS KEYS METRICS LOGS

Keys

⚠️ Service account keys could pose a security risk if compromised. We recommend you avoid downloading service account keys and instead use the [Workload Identity Federation](#). You can learn more about the best way to authenticate service accounts on Google Cloud [here](#).

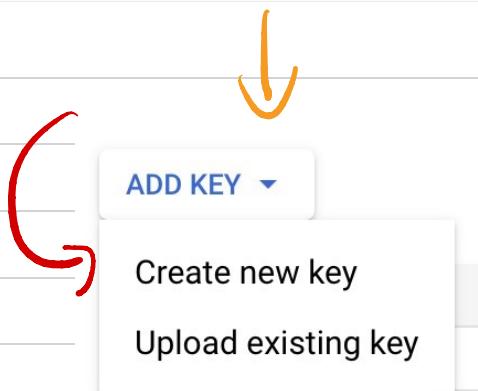
Starting June 16, 2024, Google will automatically disable service account keys detected in public repositories. You can customize this behavior by using the `iam.serviceAccountKeyExposureResponse` organization policy. [Learn more](#)

Add a new key pair or upload a public key certificate from an existing key pair.

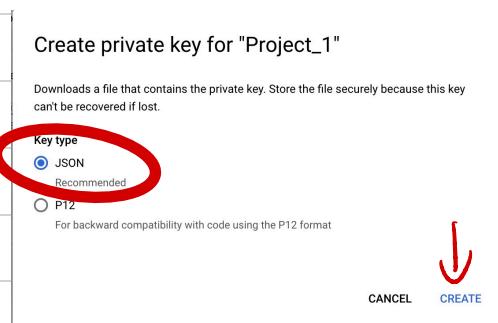
Block service account key creation using [organization policies](#). Learn more about setting organization policies for service accounts

ADD KEY ▾

| Type | Status | Key | Creation date | Expiration date |
|--------------------|--------|-----|---------------|-----------------|
| No rows to display | | | | |



Step 10: Cont



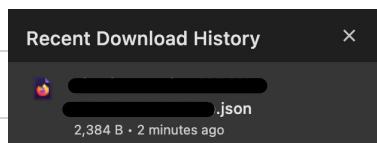
A confirmation if you did it right is below

The screenshot shows the "Keys" page in the Google Cloud Platform. At the top left, there is a red arrow pointing down to the "ADD KEY" button. The main area displays a table of keys. One row is highlighted with a red box, showing the following details:

| Type | Status | Key | Creation date | Expiration date | Action |
|-----------------|--------|------------|---------------|-----------------|--------|
| Service Account | Active | [REDACTED] | [REDACTED] | Dec 31, 9999 | |

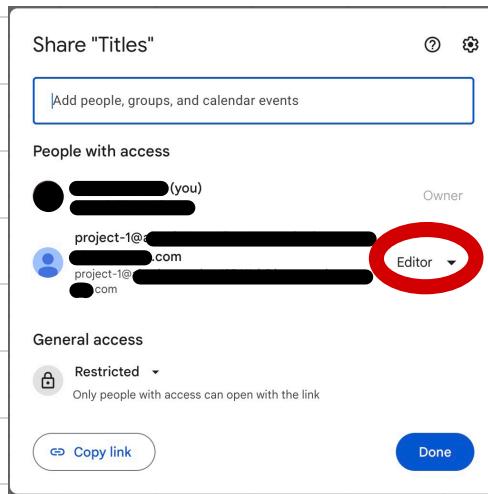
Below the table, there is a note about service account keys being disabled starting June 16, 2024. A red arrow points down to this note. Another red arrow points down to the "Recent Download History" section at the bottom.

and



Step 11: Sharing

Take your service account email and give it editor access to the Google Sheet created at start of this process.



Step 12: Move the .json that was created in Step 10 into your SurveyDown folder