

Google sheets API

What is Google sheets api

The Google Sheets API is a RESTful interface that lets you read and modify a spreadsheet's data. The most common uses of this API include the following tasks:

- Create spreadsheets
- Read and write spreadsheet cell values
- Update spreadsheet formatting
- Manage Connected Sheets

Motivation for Google sheets api 1/x

motivation 1 : for me was a [linkedin post](#) by a guy from vercel about using google sheets as a database on early stages of the project when you want to ship something quickly and worry later about the perfect database fit for your product

motivation 2 : was a [remark](#) by vercel cto that he is using this for years



Malte Ubl • Following

7h ...

CTO at Vercel

I used Google Sheets and Google Docs as a CMS for years. It's great!

Like · 👍 6 | Reply · 1 Reply

Motivation for Google sheets api 2/x

motivation 3 : is that now i am working on [next.js-isr-playground](https://next.js-isr-playground.vercel.app/) and i want to persist data and load it, file is great but using vercel i dont have files on production , so what to do

motivation 4 : I need cms for www.nathankrasnet.com and www.checkyourtechskills.com , i was thinking of wordpress but google sheets is already available so why not use it.

motivation 5 : - using the google api you might easily send email using gmail without the need for sendgrid

motivation 6 - you might want to use some kind of database for MVP or POC

Common terms - spreadsheet 1/x

The primary object in Google Sheets that can contain multiple sheets, each with structured information contained in cells. A [Spreadsheet resource](#) represents every spreadsheet and has a unique [spreadsheetId](#) value, containing letters, numbers, hyphens, or underscores. You can find the spreadsheet ID in a Google Sheets URL:

<https://docs.google.com/spreadsheets/d/spreadsheetId/edit#gid=0>



Common terms - spreadsheet 2/x

Spreadsheet id

The screenshot shows a Google Sheets interface. The browser address bar displays the URL: `https://docs.google.com/spreadsheets/d/1itd5DOYJkyspS7hOLf8mR-fqn_SKW-Pi50OnZZqArds/edit#`. The word 'spreadsheets' is highlighted with a red box. A pink arrow points from the 'Spreadsheet id' label to the ID '1itd5DOYJkyspS7hOLf8mR-fqn_SKW-Pi50OnZZqArds'. The spreadsheet title is 'קניות לסופר' (Shopping for Supermarket), also highlighted with a red box. The menu bar includes File, Edit, View, Insert, Format, Data, Tools, Extensions, and Help. The status bar indicates 'Last edit was 2 days ago'. The toolbar shows various editing tools. The spreadsheet grid has columns C, D, E, and F, and rows 1 through 7.

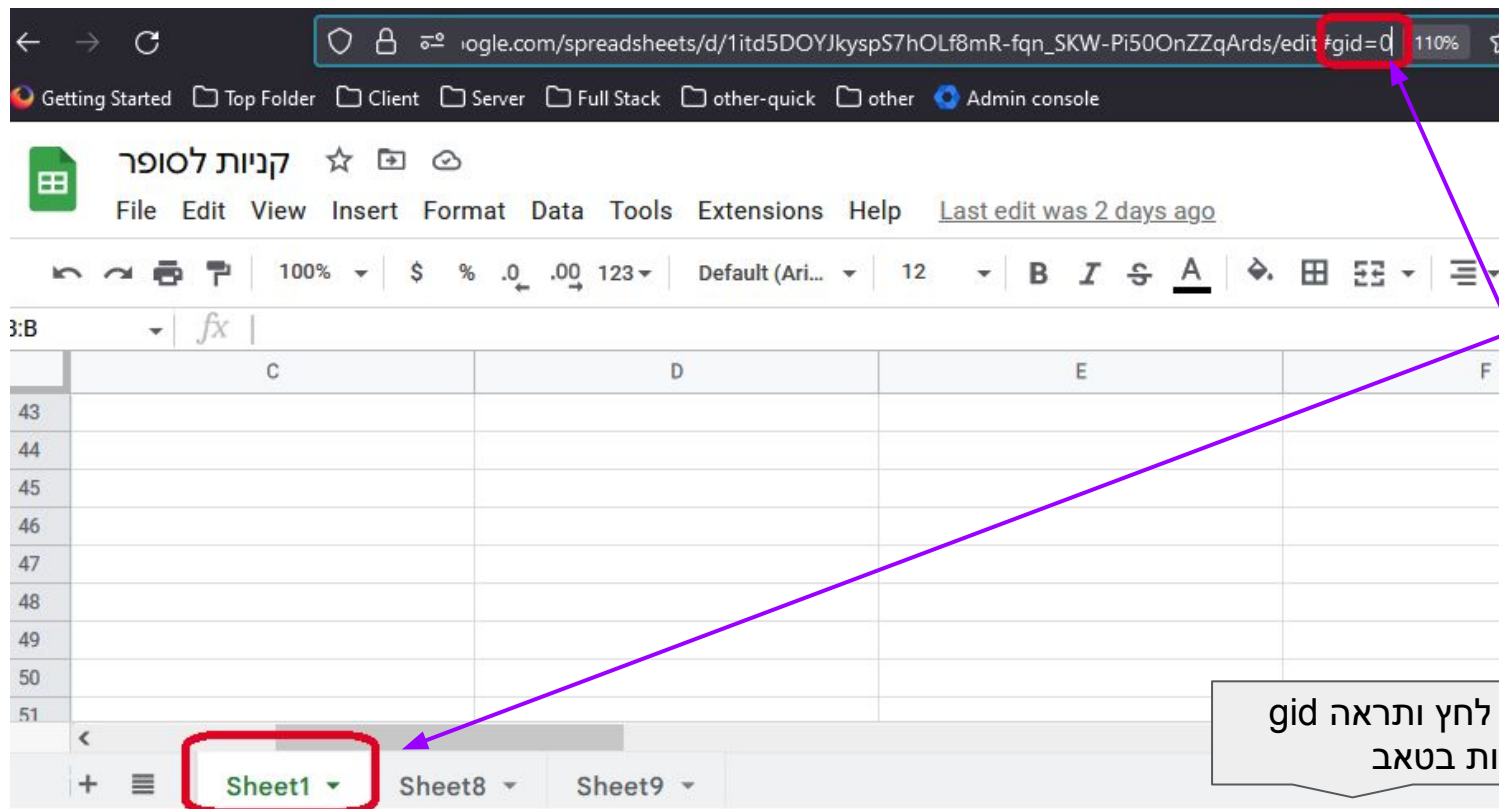
	C	D	E	F
1				
2				
3				
4				
5				
6				
7				

Common terms - sheet 1/x

A page or tab within a spreadsheet. A [Sheet resource](#) represents each sheet and has a unique title and numeric [sheetId](#) value. You can find the sheet ID in a Google Sheets URL:

https://docs.google.com/spreadsheets/d/aBC-123_xYz/edit#gid=sheetId

Common terms - sheet 2/x



Every sheet (tab) has a unique id

קביות לסופר לחץ ותראה gid משתנה כתלות בטאב

Common terms - cell 1/x

An individual field of text or data within a sheet. Cells are arranged in rows and columns, and can be grouped as a range of cells. A [CellData resource](#) represents each cell, but it doesn't have a unique ID value. Instead, row and column coordinates identify the cells.

Common terms - cell 2/x

Cell : D , 46

קניות לסופר

File Edit View Insert Format Data Tools Extensions Help Last edit was 2 days ago

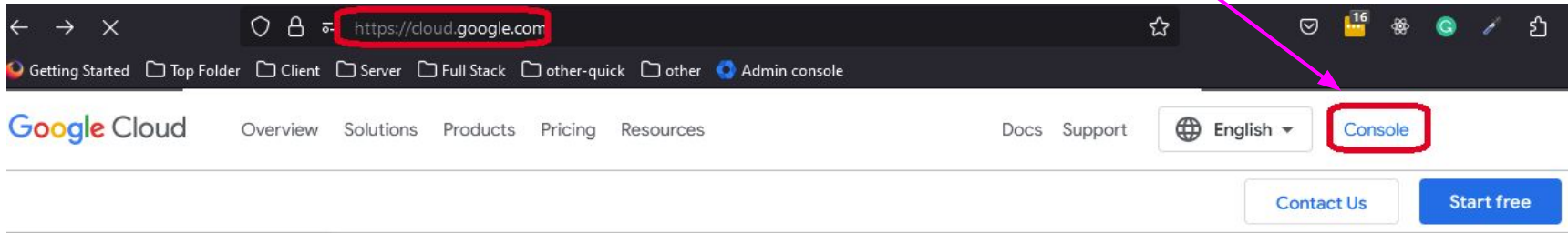
100% \$ % .0 .00 123 Default (Ari... 12 B I S A

B:B fx

	C	D	E	F
43				
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Google cloud platform

Click [here](#) and then here



Get \$300 in free credits and free usage of 20+ products →

**Dream, build, and
transform with
Google Cloud**

Build apps faster, make smarter business decisions,

<https://nathankrasney.com/>



Google cloud platform console

Click on the console button from last slide to get this

The screenshot shows the Google Cloud Platform console interface. At the top, the browser address bar displays the URL `https://console.cloud.google.com/welcome?project=serious-fabric-378409`. Below the address bar, a navigation bar includes the Google Cloud logo, a dropdown menu showing 'Google Sheets API sample' (highlighted with a red box), a search bar, and icons for a gift, a terminal, and a bell. A notification banner below the navigation bar states: 'Get notifications about attacks, vulnerabilities, and data incidents within your organization by assigning a security contact. [Learn more](#) [ADD CONTACT](#)'. The main content area features a 'Welcome' message with the Google Cloud logo. Below the welcome message, it says 'You're working in' followed by 'Google Sheets API sample' (highlighted with a red box). At the bottom, it displays 'Project number: 836382323249' and 'Project ID: serious-fabric-378409'. There are links for 'Dashboard' and 'Recommendations'. A pink arrow points from a box labeled 'My sample project' to the 'Google Sheets API sample' dropdown menu. Another pink arrow points from the same box to the 'Google Sheets API sample' text in the 'You're working in' section.

Google Cloud **Google Sheets API sample** Search (/) for resources, docs, products, and more Search

Get notifications about attacks, vulnerabilities, and data incidents within your organization by assigning a security contact. [Learn more](#) [ADD CONTACT](#)

Welcome

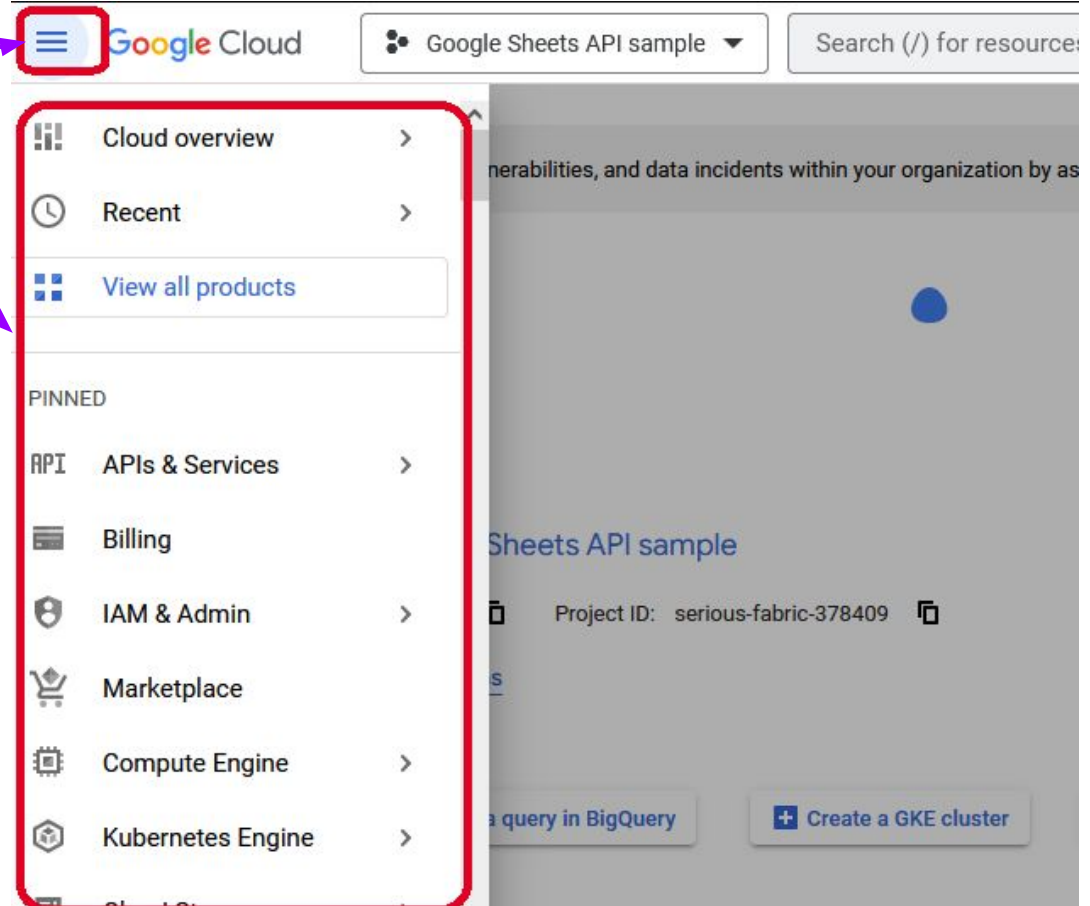
You're working in **Google Sheets API sample**

Project number: 836382323249 Project ID: serious-fabric-378409

[Dashboard](#) [Recommendations](#)

Google cloud platform console

Click here to get the navigation bar



Node.js quick start 1/x

Check [here](#)

Node.js quick start 2/x - Prerequisites

To run this quickstart, you need the following prerequisites:

- [Node.js & npm](#) installed.
- [A Google Cloud project](#).
- A Google Account.

Node.js quick start 3/x - create a google cloud project

To create a Google Cloud project:

1. In the Google Cloud console, go to Menu ☰ > **IAM & Admin** > **Create a Project**.

Go to Create a Project

Click [here](#) to start

2. In the **Project Name** field, enter a descriptive name for your project.

Optional: To edit the **Project ID**, click **Edit**. The project ID can't be changed after the project is created, so choose an ID that meets your needs for the lifetime of the project.

Click [here](#) to create the project

3. In the **Location** field, click **Browse** to display potential locations for your project. Then, click **Select**.




Caution: Can't find your Google Workspace organization?

This means you aren't signed in to a Google Workspace account. Some of the features described in Google Workspace developer documentation are only available to projects associated with an organization.

4. Click **Create**. The console navigates to the Dashboard page and your project is created within a few minutes.

Node.js quick start 4/x - fill the new project name

New Project

 You have 6 projects remaining in your quota. Request an increase or delete projects. [Learn more](#)

[MANAGE QUOTAS](#)

I have entered "Google sheets API sample"

Project name *

Project ID: aesthetic-site-378409. It cannot be changed later. [EDIT](#)

Location * [BROWSE](#)

Parent organization or folder

[CREATE](#)

[CANCEL](#)

Node.js quick start 5/x - created project

The screenshot displays the Google Cloud console interface. At the top, the header includes the Google Cloud logo, a dropdown menu showing 'react-course-backend', a search bar with the placeholder 'Search (/) for resources, docs, products, and more', and a 'Search' button. Below the header, the left sidebar contains navigation links: 'Cloud overview', 'Recent', 'View all products', and a 'PINNED' section with 'APIs & Services', 'Billing', 'IAM & Admin', 'Marketplace', 'Compute Engine', and 'Kubernetes Engine'. The main content area is titled 'DASHBOARD' and features a 'Project info' card for 'react-course-backend' with a project number 'react-course-backend-53cce'. A blue tooltip over this card reads: 'Pin the products you frequently use. We've added a few to get you started.' Below the project info card is a button 'ADD PEOPLE TO THIS PROJECT' and a link 'Go to project settings'. To the right, there's a 'Resources' section with 'BigQuery' and 'Data warehouse'. A 'Notifications' dropdown menu is open, showing a green checkmark and the message 'Create Project: Google Sheets API sample' with a 'Just now' timestamp. It includes links for 'SELECT PROJECT' and 'SEE ALL ACTIVITIES'. A purple arrow points from the title 'Node.js quick start 5/x - created project' to the 'Create Project' notification. Other elements include a 'Monitoring' section with links to 'Create my dashboard', 'Set up alerting policies', 'Create uptime checks', and 'View all dashboards', and a 'Go to Cloud status dashboard' link.

Node.js quick start 6/x - select project

From [this screen](#) click the bell

The screenshot shows the Google Cloud console interface. At the top, the navigation bar includes the Google Cloud logo, a search bar, and several icons. A red box highlights the notification bell icon. Below the navigation bar, the 'New Project' section is visible. It contains a warning message about project quotas, a form for 'Project name' (filled with 'My Project 7819') and 'Location' (set to 'No organization'), and 'CREATE' and 'CANCEL' buttons. A 'Notifications' panel is overlaid on the right side, showing a notification for 'Create Project: Google Sheets API sample' with a '17 minutes ago' timestamp. A red box highlights the 'SELECT PROJECT' link in this notification, and a purple arrow points from a text box to it.

Getting Started Top Folder Client Server Full Stack other-quick other Admin console

Google Cloud Search (/) for resources, docs, products, and more Search

New Project

You have 5 projects remaining in your quota. Request an increase or delete projects. [Learn more](#)

[MANAGE QUOTAS](#)

Project name *
My Project 7819

Project ID: semiotic-ion-378409. It cannot be changed later. [EDIT](#)

Location *
No organization [BROWSE](#)

Parent organization or folder

[CREATE](#) [CANCEL](#)

Notifications

✓ Create Project: Google Sheets API sample 17 minutes ago

[SELECT PROJECT](#)

Click here to select the project

Node.js quick start 7/x - selected project dashboard

The screenshot shows the Google Cloud console interface. The browser's address bar at the top displays the URL `https://console.cloud.google.com/home/dashboard?project=serious-fabric-378409`, which is highlighted with a red rectangle. Below the browser bar, the Google Cloud header includes the logo, a dropdown menu for 'Google Sheets API sample', a search bar, and a 'Search' button. The left sidebar contains navigation links for 'Cloud overview', 'Recent', 'View all products', and a 'PINNED' section with links to 'APIs & Services', 'Billing', 'IAM & Admin', 'Marketplace', and 'Compute Engine'. The main content area is titled 'DASHBOARD' and features three panels. The 'Project info' panel on the left, which is highlighted with a red rectangle, displays the project name 'Google Sheets API sample', project number '836382323249', and project ID 'serious-fabric-378409'. It also includes a link to 'ADD PEOPLE TO THIS PROJECT' and a button to 'Go to project settings'. The 'APIs' panel in the center shows a graph of 'Requests (requests/sec)' over time, with a message indicating 'No data is available for the selected time frame.' The 'Google Cloud Platform status' panel on the right shows 'All services normal' and a link to 'Go to Cloud status dashboard'. A 'Monitoring' section at the bottom right offers options to 'Create my dashboard', 'Set up alerting policies', and 'Create uptime checks'.

Getting Started Top Folder Client Server Full Stack other-quick other Admin console

Google Cloud Google Sheets API sample Search (/) for resources, docs, products, and more Search

Cloud overview Recent View all products

PINNED

APIs & Services Billing IAM & Admin Marketplace Compute Engine

DASHBOARD ACTIVITY RECOMMENDATIONS

Project info

Project name
Google Sheets API sample

Project number
836382323249

Project ID
serious-fabric-378409

ADD PEOPLE TO THIS PROJECT

Go to project settings

APIs

Requests (requests/sec)

No data is available for the selected time frame.

Google Cloud Platform status

All services normal

Go to Cloud status dashboard

Monitoring

Create my dashboard

Set up alerting policies

Create uptime checks

Node.js quick start 8/x - Enable API

Enable Google Workspace APIs

[Send feedback](#)

Before using Google APIs, you need to turn them on in a Google Cloud project. You can turn on one or more APIs in a single Google Cloud project. If you don't already have a Google Cloud project, see [Create a Cloud project](#).

To enable an API in your Cloud project:

1. In the Google Cloud console, go to Menu ≡ > **More products** > **Google Workspace** > **Product Library**.

Go to Product Library

Click here

2. Click the API that you want to turn on.
3. Click **Enable**.
4. To enable more APIs, repeat these steps.

Click [here](#) to get into the screen

Do i need slides 8,9,10 or simply jump to slide 11

Node.js quick start 9/x - Enable API continue

Select a project

Google Cloud

Select a project ▼

Search (/) for resources, docs, products, and more

Google Workspace

- Overview
- APIs
- Metrics
- Quotas
- Credentials
- Product Library

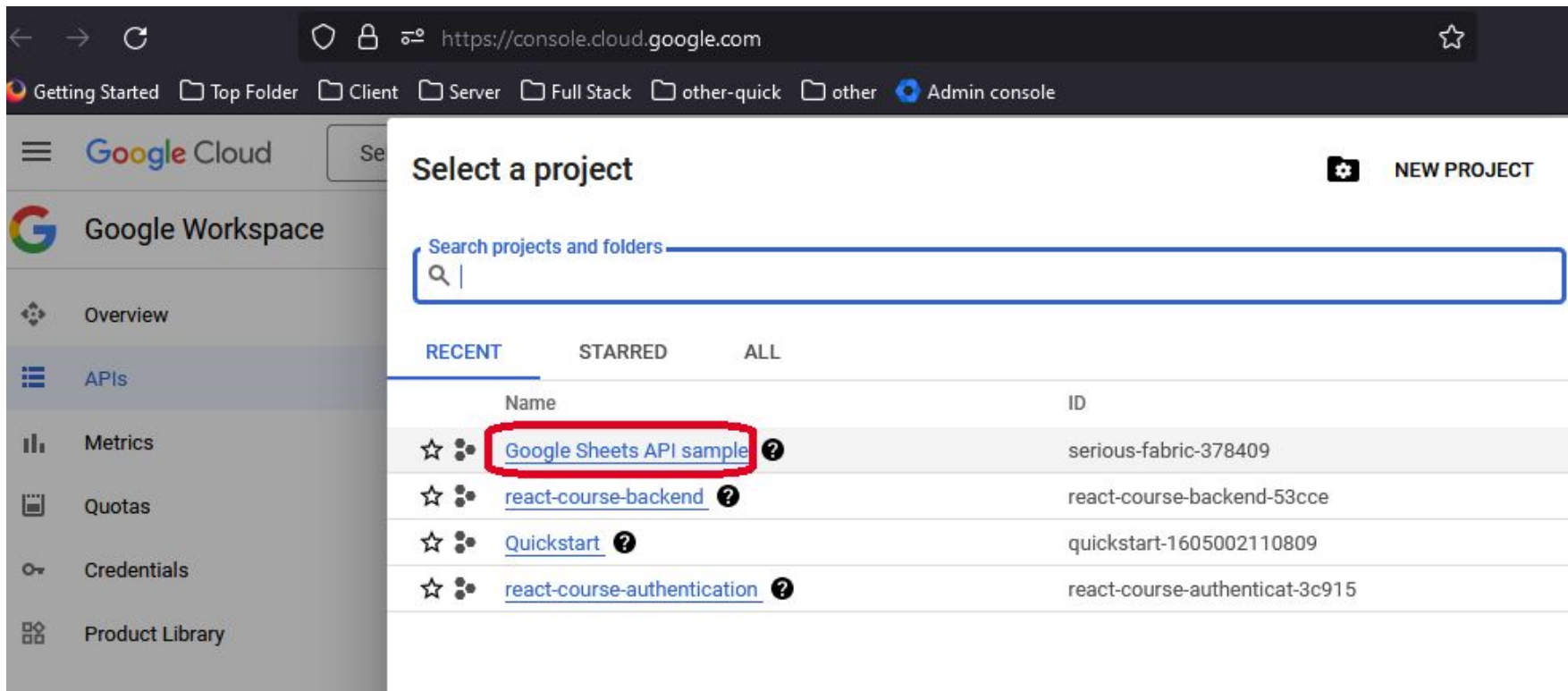
! No project selected, please choose a valid project.

There was an error while loading [/workspace-api/api-list](#). Please try again.

It may be a network issue. Check the following causes and then try refreshing the page.

- Verify that your network and internet are working correctly
- A firewall may be blocking or filtering out this address
- An ad blocker or other browser extension may be blocking this address

Node.js quick start 10/x - Enable API continue



The screenshot shows the Google Cloud console interface. The left sidebar contains navigation links: Getting Started, Top Folder, Client, Server, Full Stack, other-quick, other, and Admin console. The main content area is titled 'Select a project' and features a search bar labeled 'Search projects and folders'. Below the search bar are tabs for 'RECENT', 'STARRED', and 'ALL'. A table lists recent projects with columns for 'Name' and 'ID'. The project 'Google Sheets API sample' is highlighted with a red box. Other projects listed include 'react-course-backend', 'Quickstart', and 'react-course-authentication'.

Name	ID
Google Sheets API sample ?	serious-fabric-378409
react-course-backend ?	react-course-backend-53cce
Quickstart ?	quickstart-1605002110809
react-course-authentication ?	react-course-authenticat-3c915

Node.js quick start 11/x - Enable API start here?

Getting Started Top Folder Client Server Full Stack other-quick other Admin console

Google Workspace Home Google Sheets All products Resources Search

Filter

Sheets API

- Overview
- Quickstarts
 - JavaScript
 - Go
 - Google Apps Script
 - Java
 - Node.js**
 - Python

Create a spreadsheet
Read & write cell values
Update spreadsheets

- A Google Account.

Set up your environment

To complete this quickstart, set up your environment.

Enable the API

Before using Google APIs, you need to turn them on in a Google Cloud project. You or more APIs in a single Google Cloud project.

- In the Google Cloud console, enable the Google Sheets API.

Enable the API

Click [here](#) to step in this screen

Click here

Node.js quick start 12/x - Enable API

The screenshot shows the Google Cloud console interface. At the top, the browser tab is labeled "API Enable access to API - APIs & S...". The address bar shows the URL: `https://console.cloud.google.com/apis/enbleflow?apiid=sheets.googleapis.com&project=serious-fabric-378409`. Below the address bar, the "Google Sheets API sample" project selector is highlighted with a red box. A pink arrow points from a callout box "Choose your project here" to this selector. The main content area is titled "Enable access to API". On the left, a progress indicator shows two steps: "1 Confirm project" (highlighted with a red box) and "2 Enable API". A pink arrow points from a callout box "Click here to get next slide" to the "NEXT" button, which is also highlighted with a red box. The main text area contains the following text: "You are going to make changes to project 'serious-fabric-378409'. If this is not the project you intended to use, you can select or create a different project using the project selector above."

Choose your project here

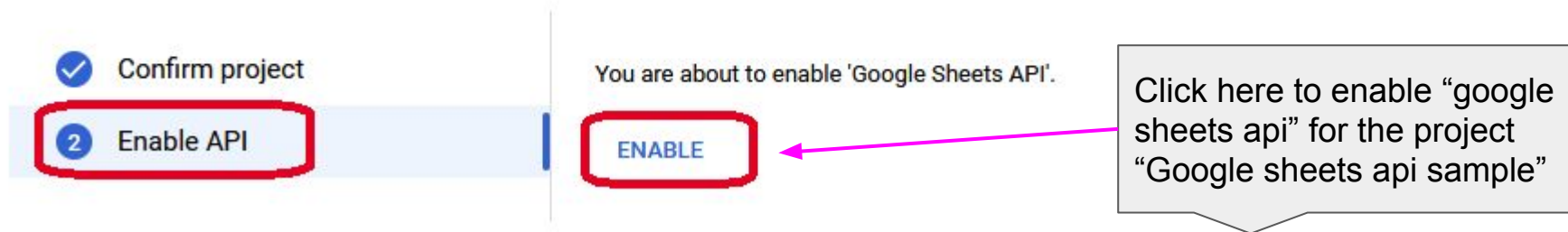
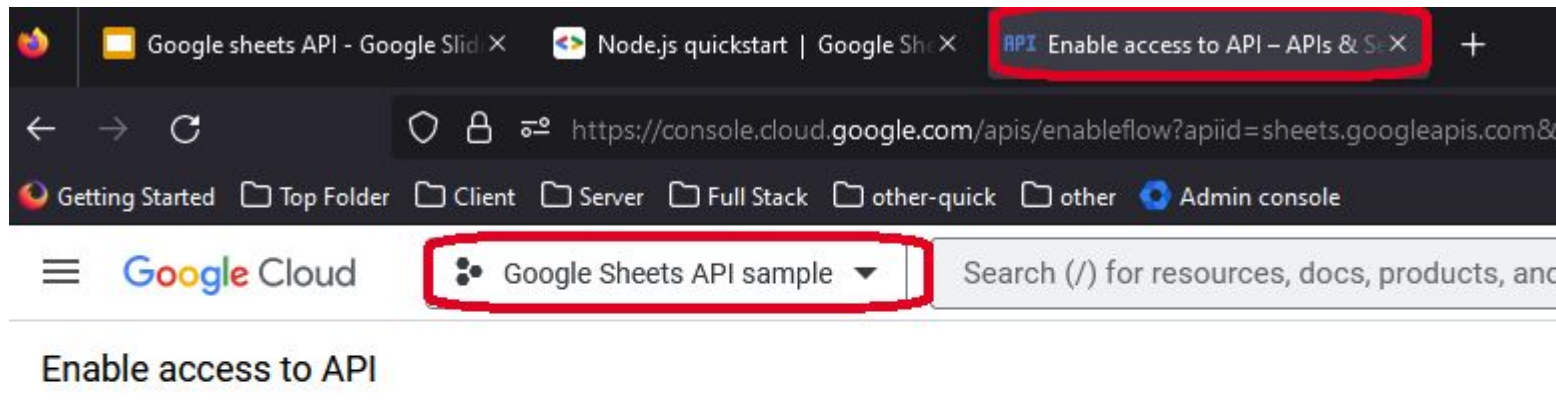
1 Confirm project

2 Enable API

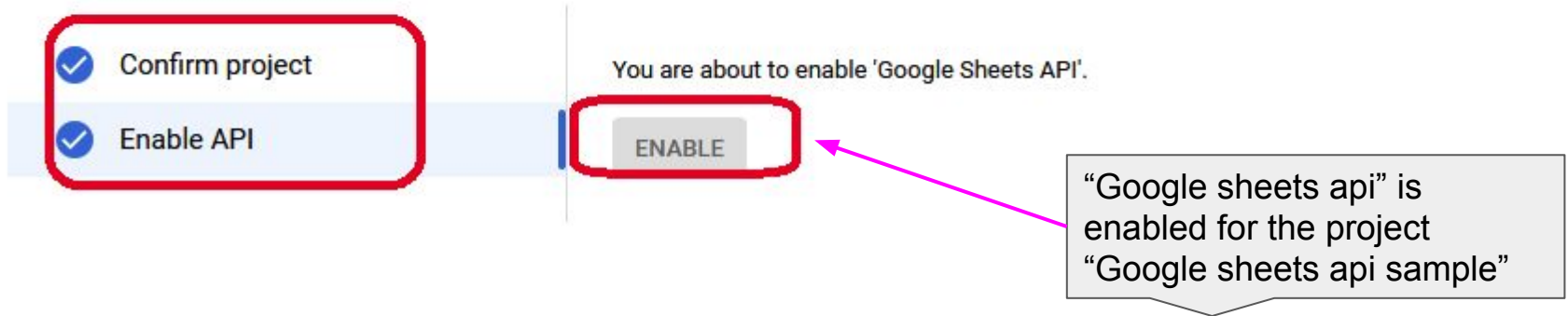
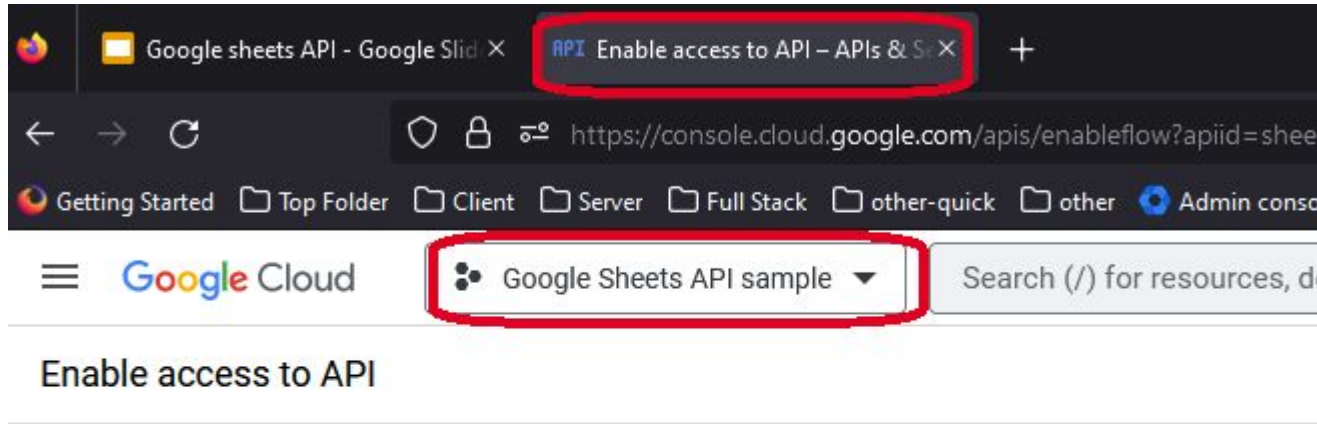
NEXT

Click here to get next slide

Node.js quick start 13/x - Enable API



Node.js quick start 14/x - Enable API finished



Node.js quick start 15/x - [Authorize credentials for a desktop application](#)

I do not want to use desktop application because i invoke it from a server so i do not continue with this quick start and use service account

Check my slides [here](#)

My Repository

[google-sheets-api-playground](#)

google-spreadsheet

This is a nice wrapper around google api

It has [great documentation about project setup](#)

References 1/x

- [Official docs](#)
- My slides - [google workspace API](#)
- [How Levels.fyi scaled to millions of users with Google Sheets as a backend](#) - Feb 2023 this is an article that triggered my interest in google sheets following this [linkedin post](#)
- [Google Sheet API with NodeJS | Google Sheet as backend | Google Sheet CRUD operation with NodeJS](#) - june 2021 , nice video
- [Google Sheets and JavaScript with Node.js](#) - apr 2019 twilio , 220K views , but it changed see remark may be not use it
- [Drive a REST API from a Google Sheet](#) - feb 2021 , very short

References 2/x

- [Build an App using Google Sheets as CMS](#) - dec 2015
- [Create a Web App using Google Sheets as your Database | CMS | JavaScript | ACM IIT\(ISM\) Dhanbad](#) - jul 2020. He uses images ,publish the google sheets to the web , use [tabletop](#) that take google sheets and make json of it. Only read and does not use google sheets api directly