

Automatic Sampling and Analysis of YouTube Data

Setting Up Access to the YouTube API

Julian Kohne
Johannes Breuer
M. Rohangis Mohseni

2022-02-21

Setting up API access to the *YouTube* API

To effectively work with *YouTube* data, we need access to its Application Programming Interface (API). As this process, unfortunately, can be a bit tedious, we prepared this preliminary tutorial so you don't have to spend time setting up your API access during the workshop. Please follow this tutorial and check if the setup works before the workshop. If your setup does not work, feel free to contact us before the workshop (the sooner the better) and we'll try to assist you in setting up access to the *YouTube* API. If, for some reason, setting up access to the API does not work for you and we don't find a solution or if you cannot access the API during the workshop, we will have some data prepared that you can then work with in the workshop.

Contact: julian.kohne@gesis.org

HINT: Pink texts in the slides are hyperlinks that you can simply click on

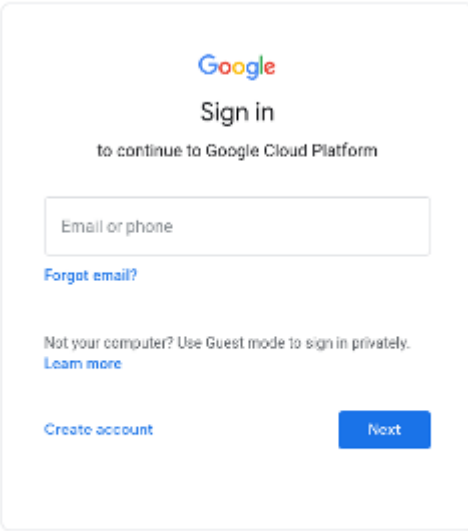
Setting up API Access

- For starters, you need a *Gmail* account
- We suggest that you create a new account specifically for this workshop, so you don't mess up or accidentally share the credentials of your private or work account
- You can create a new account [here](#)
- Next, you need to:
 - Sign up for the *Google Developer Console*
 - Create a new project
 - Activate the Youtube Data API v3
 - Create authentication credentials
 - Test the credentials from R

We will explain these steps in detail on the following slides.

Google Developer Console

Go to the **Developer Console** and log in with your (new) *Google* Account. You need to accept the Google Developer ToS, can deselect the email updates, and click "Agree and continue".

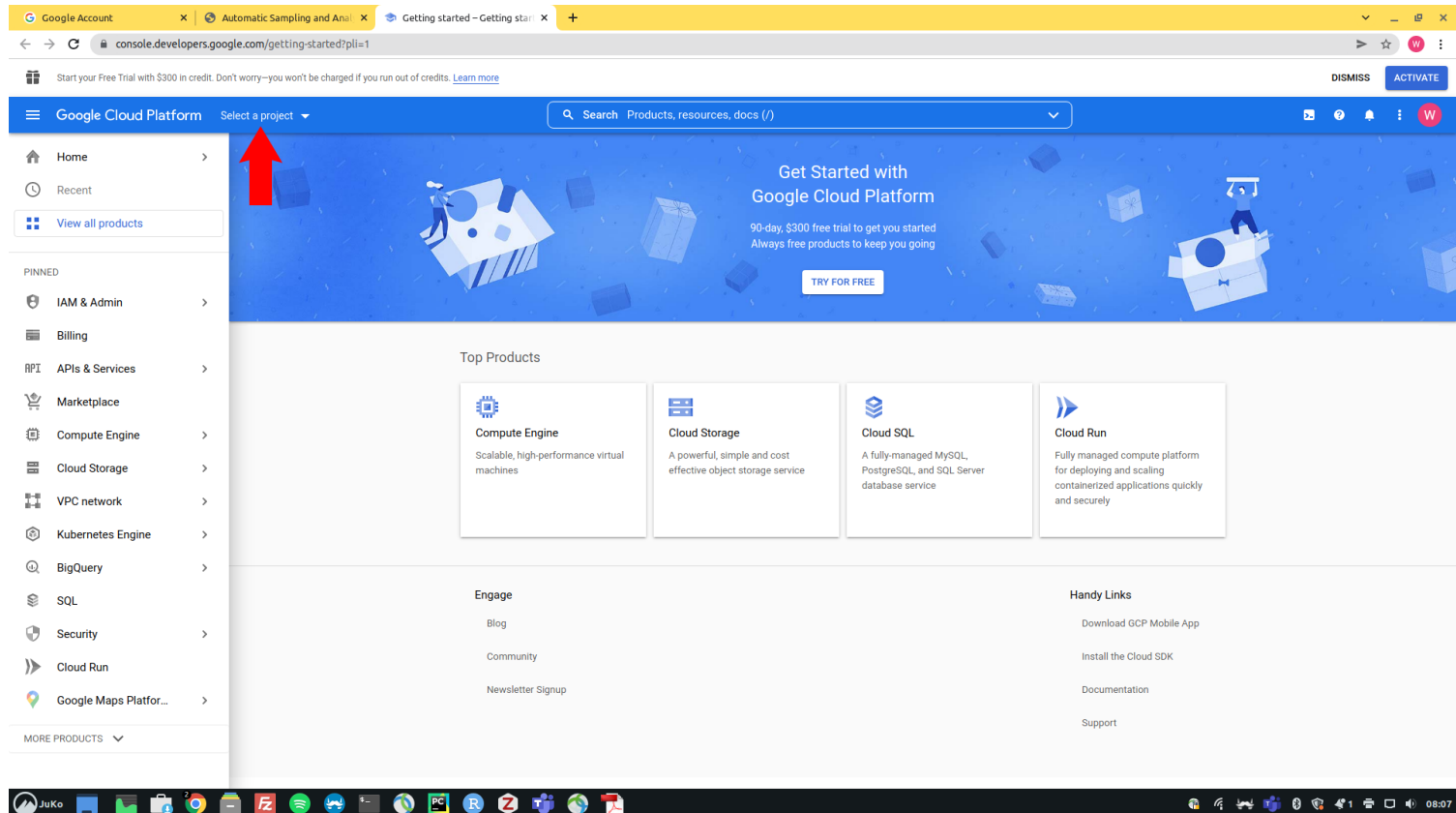


The image shows a Google sign-in page. At the top is the Google logo. Below it, the text "Sign in" is centered, followed by "to continue to Google Cloud Platform". There is a text input field labeled "Email or phone". Below the field is a link "Forgot email?". Further down, there is a link "Not your computer? Use Guest mode to sign in privately." followed by a link "Learn more". At the bottom left is a link "Create account" and at the bottom right is a blue button labeled "Next". At the very bottom of the page, there is a language selector "English (United States)" with a dropdown arrow, and three links: "Help", "Privacy", and "Terms".

English (United States) ▼ [Help](#) [Privacy](#) [Terms](#)

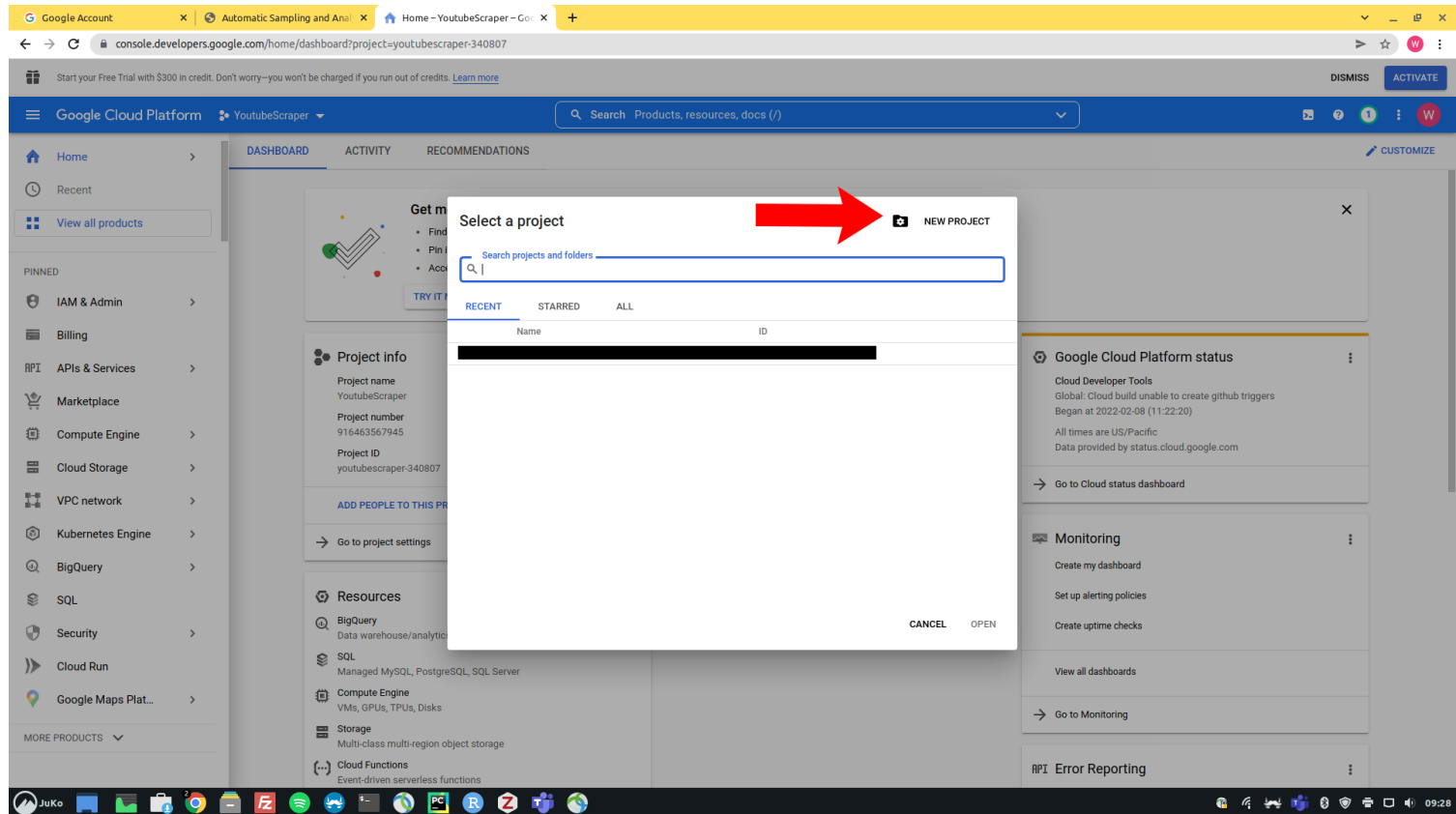
Creating a Project

After that, you can click on "select project" on the top left of the screen.



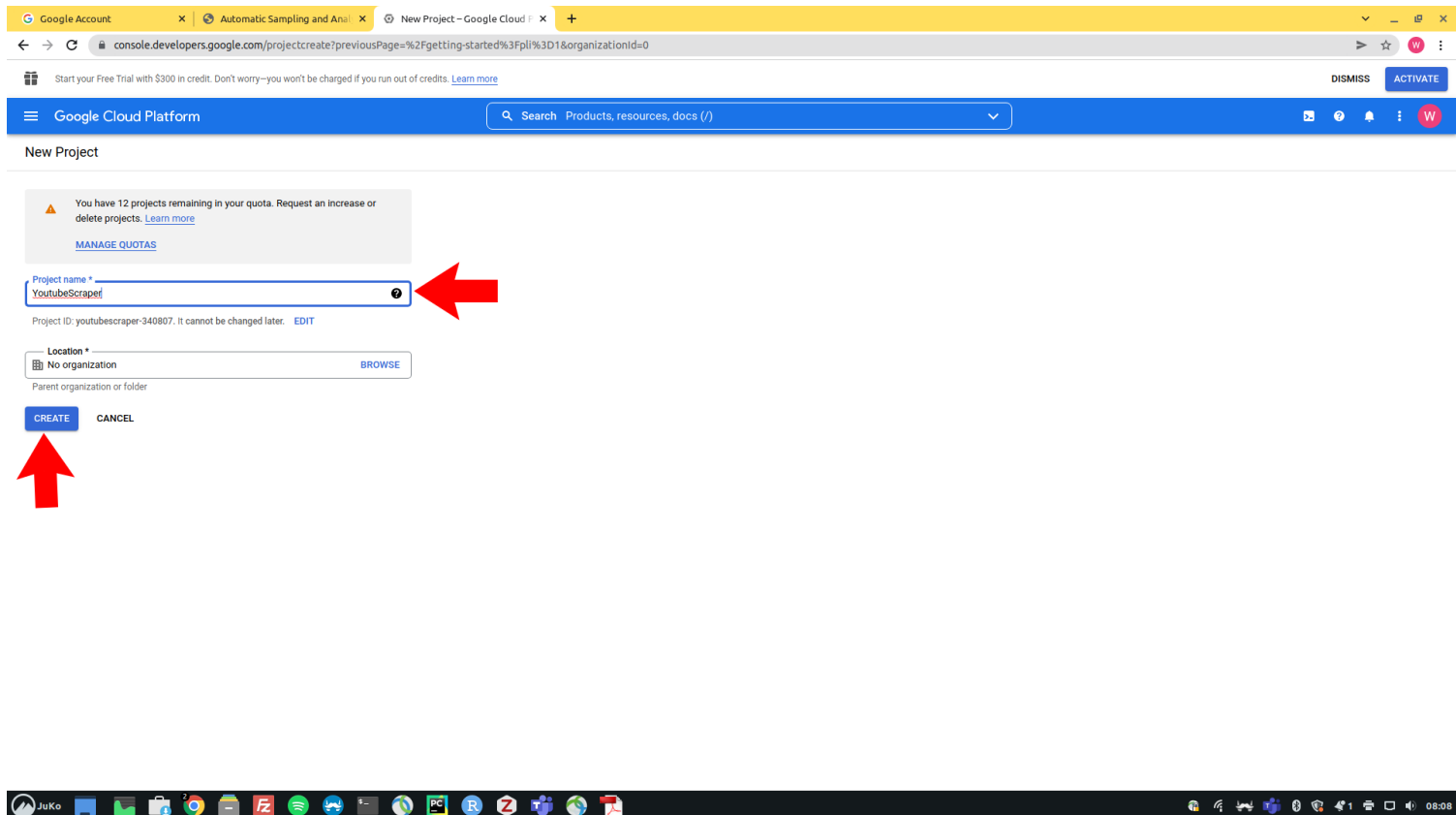
Creating a Project

In the pop-up window, click on "new project" to start a new project



Creating a Project

Enter a project name and click on "create"; you don't need to specify an organization



Google Account Automatic Sampling and Analysis New Project - Google Cloud

console.developers.google.com/projectcreate?previousPage=%2Fgetting-started%3Fp%3D1&organizationId=0

Start your Free Trial with \$300 in credit. Don't worry—you won't be charged if you run out of credits. [Learn more](#) DISMISS ACTIVATE

Google Cloud Platform Search Products, resources, docs (/)

New Project

You have 12 projects remaining in your quota. Request an increase or delete projects. [Learn more](#)
[MANAGE QUOTAS](#)

Project name *
YoutubeScrape ⓘ

Project ID: youtubescraper-340807. It cannot be changed later. [EDIT](#)

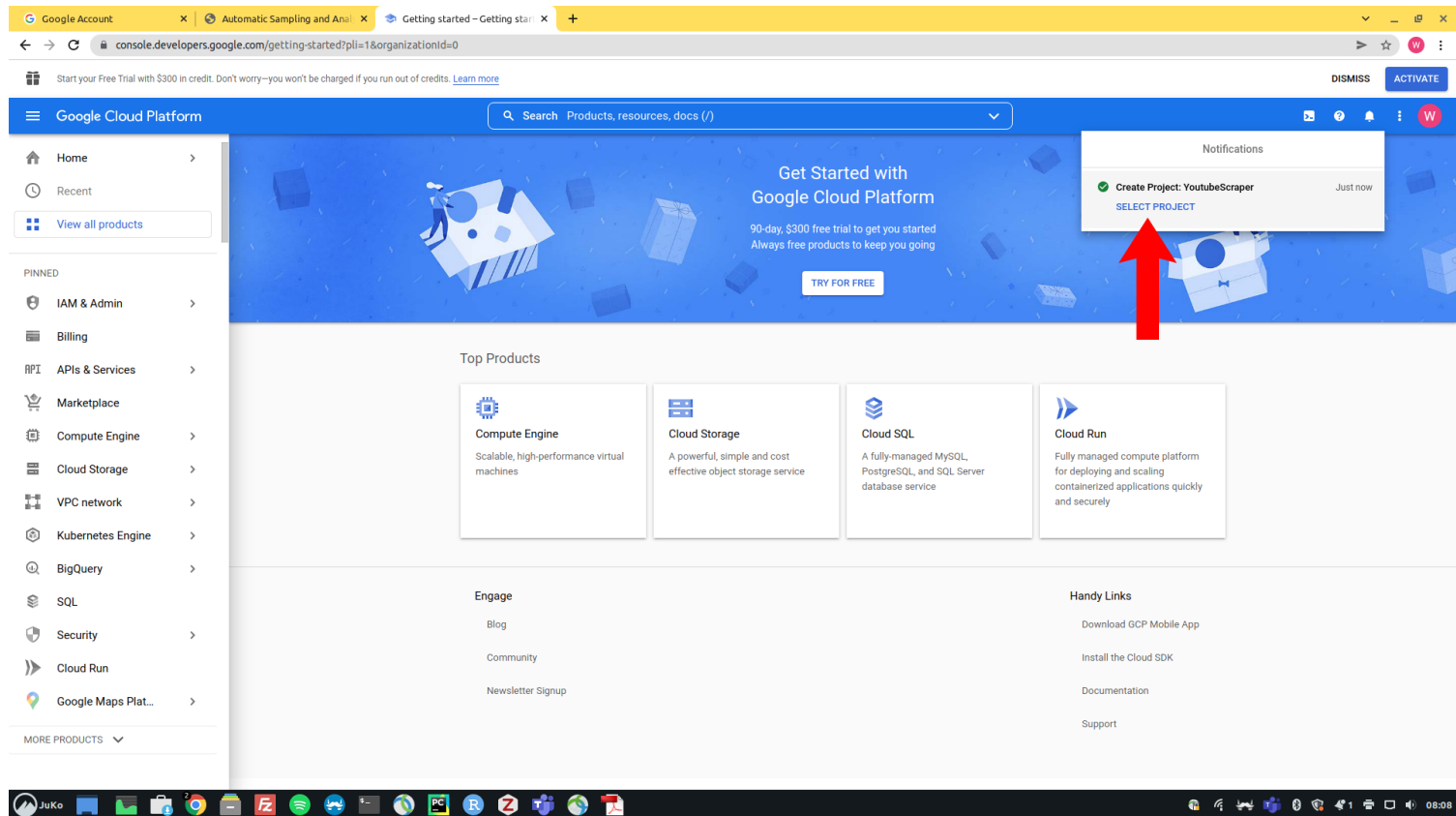
Location *
No organization BROWSE

Parent organization or folder

CREATE CANCEL

Activating YouTube Data API v3

On the next screen, go to your project by clicking on "Select Project" in the pop-up window on the top right



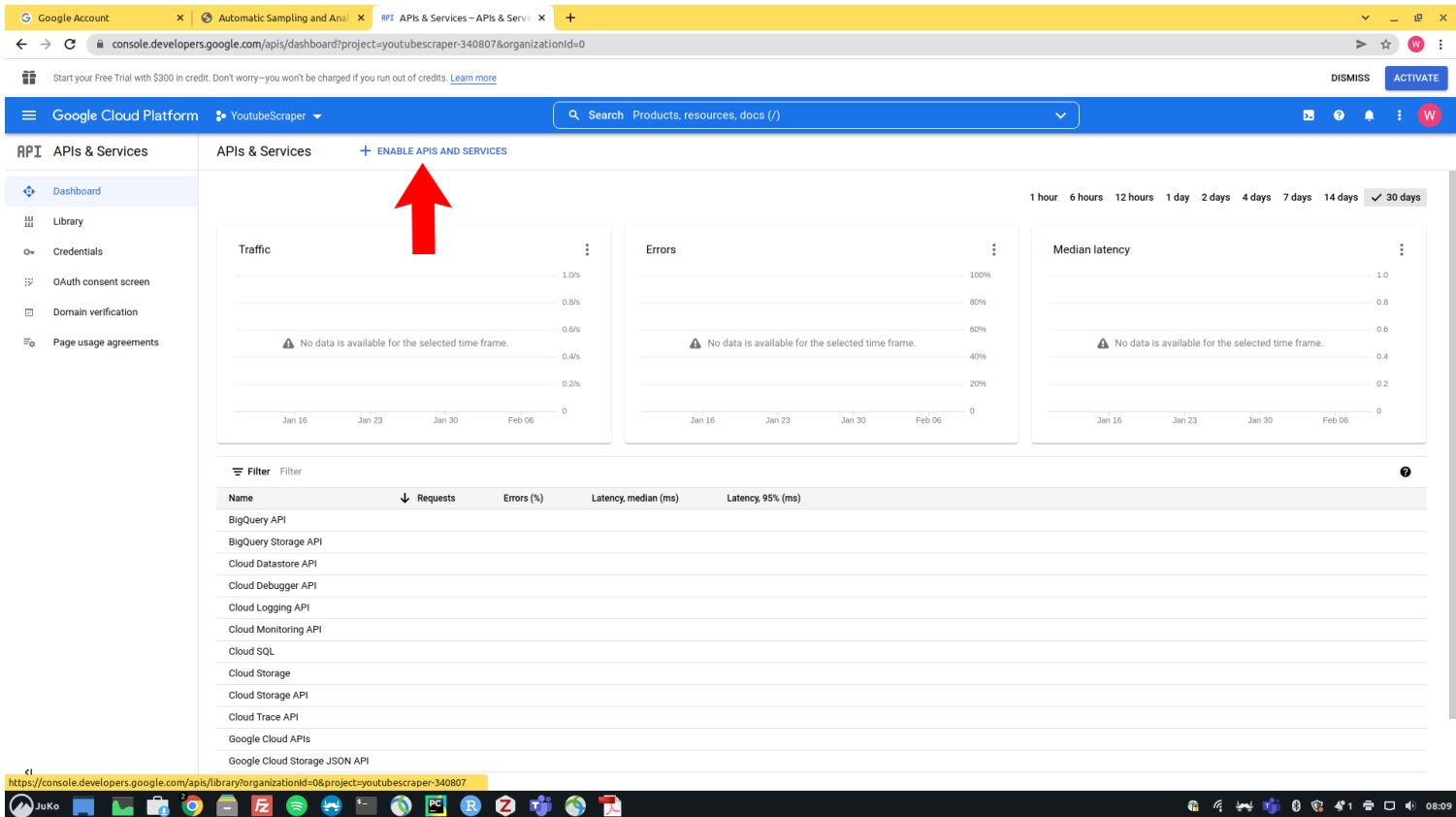
Activating YouTube Data API v3

On your project site, scroll down and click on "Explore and enable APIs"

The screenshot shows the Google Cloud Platform console interface. The left sidebar contains a navigation menu with categories like 'Home', 'Recent', 'View all products', 'PINNED', and various services including IAM & Admin, Billing, APIs & Services, Marketplace, Compute Engine, Cloud Storage, VPC network, Kubernetes Engine, BigQuery, SQL, Security, Cloud Run, and Google Maps Platform. The main content area is titled 'DASHBOARD' and lists several services: Multi-class multi-region object storage, Cloud Functions, App Engine, Trace, and a 'Getting Started' section. The 'Getting Started' section includes the option 'API: Explore and enable APIs', which is highlighted by a red arrow. Other options in this section include 'Deploy a prebuilt solution', 'Add dynamic logging to a running application', 'Monitor errors with Error Reporting', 'Deploy a Hello World app', 'Take a VM quickstart', 'Create a Cloud Storage bucket', 'Create a Cloud Function', 'Install the Cloud SDK', and 'Explore all tutorials'. The right sidebar contains sections for 'API Error Reporting', 'News', and 'Documentation'. The top of the console shows the Google Account, project name 'YoutubeScrapper', and a search bar. The bottom of the console shows the URL 'https://console.developers.google.com/apis/project=youtubescrapper-340807&organizationid=0' and a taskbar with various application icons.

Activating YouTube Data API v3

Next, click on the blue "Enable APIs and services" button on the top left side



The screenshot shows the Google Cloud Platform console interface. The top navigation bar includes the Google Cloud Platform logo, the project name 'YoutubeScraper', and a search bar. A red arrow points to the '+ ENABLE APIS AND SERVICES' button in the top navigation bar. The main content area displays three charts: 'Traffic', 'Errors', and 'Median latency', all showing 'No data is available for the selected time frame.' Below the charts is a table of APIs and services, with columns for Name, Requests, Errors (%), Latency, median (ms), and Latency, 95% (ms). The table lists various APIs such as BigQuery API, BigQuery Storage API, Cloud Datastore API, Cloud Debugger API, Cloud Logging API, Cloud Monitoring API, Cloud SQL, Cloud Storage, Cloud Storage API, Cloud Trace API, Google Cloud APIs, and Google Cloud Storage JSON API.

Google Account Automatic Sampling and Analysis API APIs & Services - APIs & Services +

console.developers.google.com/apis/dashboard?project=youtubescraper-340807&organizationId=0

Start your Free Trial with \$300 in credit. Don't worry—you won't be charged if you run out of credits. [Learn more](#) DISMISS ACTIVATE

Google Cloud Platform YoutubeScraper Search Products, resources, docs (/)

APIs & Services + ENABLE APIS AND SERVICES

Dashboard Library Credentials OAuth consent screen Domain verification Page usage agreements

1 hour 6 hours 12 hours 1 day 2 days 4 days 7 days 14 days 30 days

Traffic Errors Median latency

No data is available for the selected time frame.

Filter Filter

| Name | Requests | Errors (%) | Latency, median (ms) | Latency, 95% (ms) |
|-------------------------------|----------|------------|----------------------|-------------------|
| BigQuery API | | | | |
| BigQuery Storage API | | | | |
| Cloud Datastore API | | | | |
| Cloud Debugger API | | | | |
| Cloud Logging API | | | | |
| Cloud Monitoring API | | | | |
| Cloud SQL | | | | |
| Cloud Storage | | | | |
| Cloud Storage API | | | | |
| Cloud Trace API | | | | |
| Google Cloud APIs | | | | |
| Google Cloud Storage JSON API | | | | |

https://console.developers.google.com/apis/library/organizationId=0&project=youtubescraper-340807

Activating YouTube Data API v3

On the next page, search for "youtube data api v3" and hit enter

The screenshot shows the Google Cloud Platform API Library interface. The browser address bar displays the URL: `console.developers.google.com/apis/library?organizationId=0&project=youtubescraper-340807`. The page header includes the Google Cloud Platform logo and the project name 'YoutubeScraper'. A red arrow points to the search bar, which contains the text 'Youtube data api v3'. Below the search bar, the results are categorized into 'Maps' and 'Machine learning'. The 'Maps' category includes APIs like 'Maps SDK for Android', 'Maps SDK for iOS', 'Maps JavaScript API', 'Places API', 'Roads API', and 'Directions API'. The 'Machine learning' category includes APIs like 'Dialogflow API', 'Cloud Vision API', 'Cloud Natural Language API', 'Cloud Speech-to-Text API', 'Cloud Translation API', and 'AI Platform Training & Prediction API'. The bottom of the screen shows a Windows taskbar with various application icons and the system clock displaying 08:09.

Google Account Automatic Sampling and Analysis API API Library - APIs & Services +

console.developers.google.com/apis/library?organizationId=0&project=youtubescraper-340807

Start your Free Trial with \$300 in credit. Don't worry—you won't be charged if you run out of credits. [Learn more](#) DISMISS ACTIVATE

Google Cloud Platform YoutubeScraper

API Library

Welcome to the API Library

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

Search: Youtube data api v3

youtube data api v3

Filter by

VISIBILITY

Public (363)

Private (5)

CATEGORY

Maps (15)

Big data (16)

Analytics (5)

Databases (6)

Machine learning (9)

Developer tools (18)

Compute (8)

Advertising (14)

Social (4)

Operating systems (1)

Healthcare (4)

Google Enterprise APIs (182)

Blog & CMS (1)

Security (5)

Maps

VIEW ALL (15)

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.

Directions API

Google Enterprise API

Directions between multiple locations.

Machine learning

VIEW ALL (9)

Dialogflow API

Google Enterprise API

Build conversational interfaces

Cloud Vision API

Google Enterprise API

Image Content Analysis

Cloud Natural Language API

Google Enterprise API

Process natural language

Cloud Speech-to-Text API

Google Enterprise API

Speech recognition

Cloud Translation API

Google Enterprise API

Integrate text translation into your

AI Platform Training & Prediction API

Google Enterprise API

JuKo

08:09

Activating YouTube Data API v3

Select "YouTube Data API v3"

The screenshot shows the Google Cloud Platform API Library interface. At the top, there's a navigation bar with 'Google Cloud Platform' and 'YoutubeScrapper'. Below this, a search bar contains the text 'Youtube data api v3'. The search results section shows '1 result' and a card for 'YouTube Data API v3' by Google. The card includes a YouTube logo, the title 'YouTube Data API v3', the provider 'Google', and a description: 'The YouTube Data API v3 is an API that provides access to YouTube data, such as videos, playlists, and channels.' A large red arrow points to the right side of this card. The browser's address bar shows the URL: 'https://console.developers.google.com/apis/library/youtube.googleapis.com?organizationid=0&project=y...'. The Windows taskbar is visible at the bottom with various application icons and a system clock showing 08:10.

Google Account Automatic Sampling and Analysis API Library - APIs & Services - YoutubeScrapper

console.developers.google.com/apis/library/browse?organizationid=0&project=youtubescrapper-340807&q=Youtube%20data%20api%20v3

Start your Free Trial with \$300 in credit. Don't worry—you won't be charged if you run out of credits. [Learn more](#) DISMISS ACTIVATE

Google Cloud Platform YoutubeScrapper


API Library

Search: Youtube data api v3

API Library > "Youtube data api v3"

"Youtube data api v3"

1 result

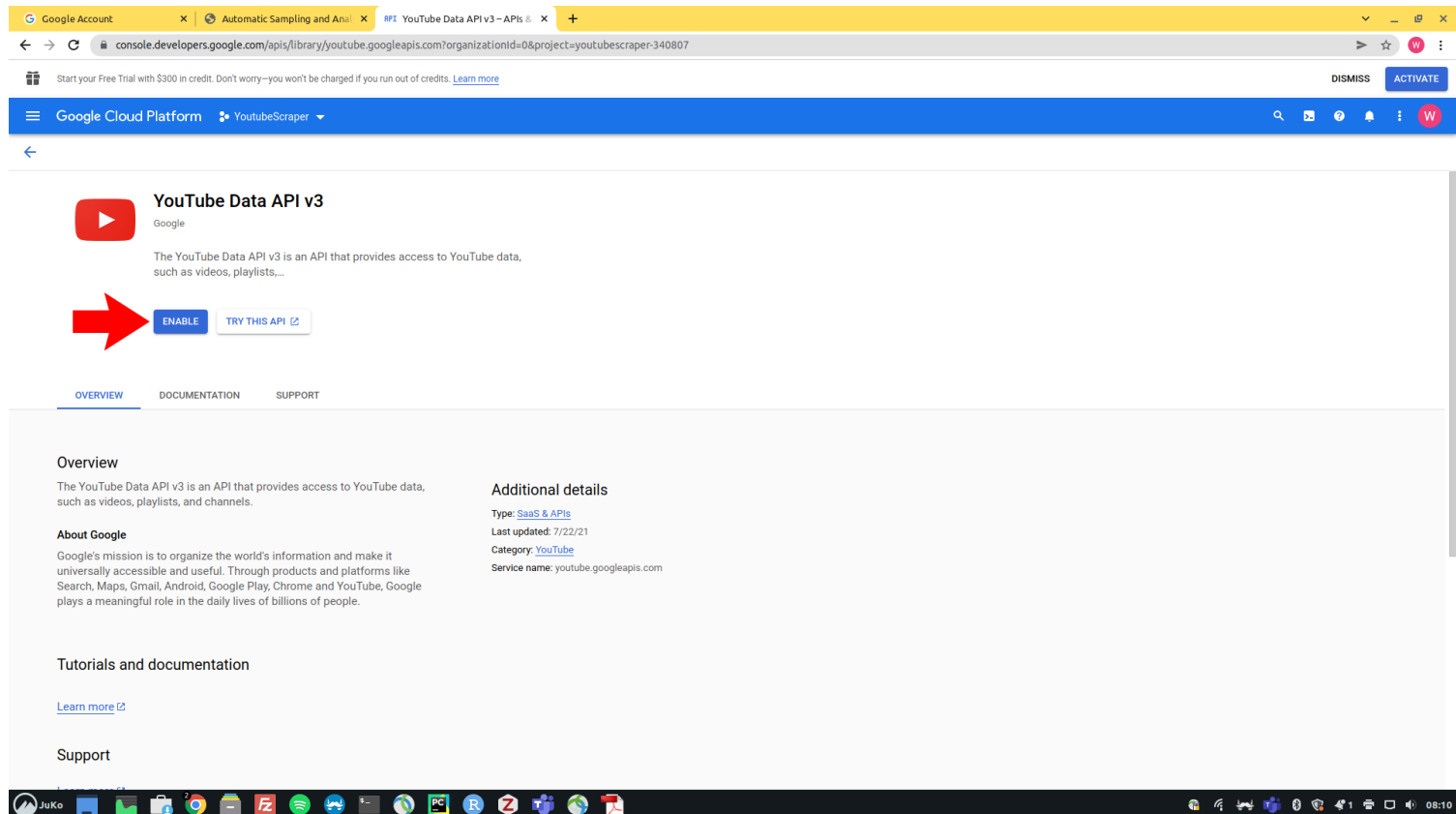
 **YouTube Data API v3**
Google
The YouTube Data API v3 is an API that provides access to YouTube data, such as videos, playlists, and channels.

<https://console.developers.google.com/apis/library/youtube.googleapis.com?organizationid=0&project=y...>

Taskbar: JuKo, File Explorer, Chrome, VS Code, Spotify, Discord, Steam, PC, R, Z, T, W, 08:10

Activating YouTube Data API v3

On the next screen, click "enable" to activate the YouTube data API v3



The screenshot shows the Google Cloud Platform console interface. At the top, there's a navigation bar with the Google Cloud Platform logo and the project name 'YoutubeScrapper'. Below this, the main content area displays the 'YouTube Data API v3' page. A red arrow points to the 'ENABLE' button, which is located next to the 'TRY THIS API' button. The page also includes an 'OVERVIEW' section with a description of the API, 'Additional details' such as 'Type: SaaS & APIs', 'Last updated: 7/22/21', 'Category: YouTube', and 'Service name: youtube.googleapis.com'. There are also links for 'Tutorials and documentation' and 'Support'.

Google Account Automatic Sampling and Analysis API YouTube Data API v3 - APIs +

console.developers.google.com/apis/library/youtube.googleapis.com?organizationId=0&project=youtubescraper-340807

Start your Free Trial with \$300 in credit. Don't worry—you won't be charged if you run out of credits. [Learn more](#) DISMISS ACTIVATE

Google Cloud Platform YoutubeScrapper

YouTube Data API v3

Google

The YouTube Data API v3 is an API that provides access to YouTube data, such as videos, playlists,...

ENABLE TRY THIS API

OVERVIEW DOCUMENTATION SUPPORT

Overview

The YouTube Data API v3 is an API that provides access to YouTube data, such as videos, playlists, and channels.

About Google

Google's mission is to organize the world's information and make it universally accessible and useful. Through products and platforms like Search, Maps, Gmail, Android, Google Play, Chrome and YouTube, Google plays a meaningful role in the daily lives of billions of people.

Additional details

Type: [SaaS & APIs](#)

Last updated: 7/22/21

Category: [YouTube](#)

Service name: youtube.googleapis.com

Tutorials and documentation

[Learn more](#)

Support

Creating Credentials

On the next screen, click on "Create Credentials" on the top right

The screenshot shows the Google Cloud Platform console interface. The browser address bar displays the URL: `console.developers.google.com/apis/api/youtube.googleapis.com/overview?project=youtubescraper-340807`. The page title is "YouTube Data API v3". The left sidebar contains a navigation menu with "Overview", "Metrics", "Quotas", and "Credentials". The main content area has a header with "Overview" and a "DISABLE API" button. Below this, a message states: "To use this API, you may need credentials. Click 'Create credentials' to get started." A red arrow points to the "CREATE CREDENTIALS" button in the top right corner of the main content area. The "Details" section on the left lists the API name, service name, and activation status. The "Traffic by response code" section on the right shows a line chart with the text "No data is available for the selected time frame." and a "View metrics" link.

Google Account | Automatic Sampling and Analysis | API Overview - APIs & Services - | +

console.developers.google.com/apis/api/youtube.googleapis.com/overview?project=youtubescraper-340807

Start your Free Trial with \$300 in credit. Don't worry—you won't be charged if you run out of credits. [Learn more](#)

DISMISS ACTIVATE

Google Cloud Platform | YoutubeScraper | Search Products, resources, docs (/)

APIs & Services | YouTube Data API v3 | Overview | DISABLE API

Overview

Metrics

Quotas

Credentials

To use this API, you may need credentials. Click 'Create credentials' to get started.

CREATE CREDENTIALS

Details

Name
YouTube Data API v3

By
Google

Service name
youtube.googleapis.com

Overview
The YouTube Data API v3 is an API that provides access to YouTube data, such as videos, playlists, and channels.

Activation status
Enabled

Tutorials and documentation

Learn more

Try in API Explorer

Traffic by response code

Request/sec (2 hr average)

No data is available for the selected time frame.

View metrics

Creating Credentials

On the next screen, select "YouTube Data API v3" and click on the "User Data" radio button, then click "next"

The screenshot shows the Google Cloud Platform console with the 'Create credentials' wizard open. The left sidebar shows the 'APIs & Services' menu. The main content area is titled '1 Credential Type'. Under the heading 'Which API are you using?', there is a dropdown menu with 'YouTube Data API v3' selected. Below this, under 'What data will you be accessing? *', the 'User data' radio button is selected. At the bottom of this section is a 'NEXT' button. Red arrows point to the dropdown menu, the 'User data' radio button, and the 'NEXT' button. Below the 'Credential Type' section is the '2 Your Credentials' section, which contains 'DONE' and 'CANCEL' buttons.

Google Account Automatic Sampling and Analysis API Create credentials - APIs & Services console.developers.google.com/apis/credentials/wizard?project=youtubescraper-340807

Start your Free Trial with \$300 in credit. Don't worry—you won't be charged if you run out of credits. [Learn more](#) DISMISS ACTIVATE

Google Cloud Platform YoutubeScraper Search Products, resources, docs (/)

APIs & Services Create credentials

Dashboard Library Credentials OAuth consent screen Domain verification Page usage agreements

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 *
YouTube Data API v3

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.

☐ **Public data**
Google data that is publicly available, like public Maps data showing restaurant information. This will create an API key.

NEXT

2 Your Credentials

DONE CANCEL

Creating Credentials

Next, specify an arbitrary App name and enter your own new Gmail address as the user support email and developer contact email. "Save and continue" afterwards

The screenshot shows the Google Cloud Platform console with the 'Create credentials' wizard open. The browser tabs include 'Google Account', 'Automatic Sampling and Analysis', and 'Create credentials - APIs & Services'. The URL is 'console.developers.google.com/apis/credentials/wizard?project=youtubescraper-340807'. The left sidebar shows 'APIs & Services' with a sub-menu containing 'Dashboard', 'Library', 'Credentials', 'OAuth consent screen', 'Domain verification', and 'Page usage agreements'. The main content area is titled 'Create credentials' and shows step 2 of the 'OAuth Consent Screen'.

App information

This shows in the consent screen, and helps end users know who you are and contact you

App name *
TuberScraper

The name of the app asking for consent

User support email *
workshoptester2022@gmail.com

For users to contact you with questions about their consent

App logo [BROWSE](#)

Upload an image, not larger than 1MB on the consent screen that will help users recognize your app. Allowed image formats are JPG, PNG, and BMP. Logos should be square and 120px by 120px for the best results.

Developer contact information

Email addresses *
workshoptester2022@gmail.com

These email addresses are for Google to notify you about any changes to your project.

[SAVE AND CONTINUE](#)

Scopes (optional)

OAuth Client ID

Creating Credentials

Click on "Add or removes scopes" next

The screenshot shows the Google Cloud Platform console at the URL `console.developers.google.com/apis/credentials/wizard?project=youtubescraper-340807`. The left sidebar shows the 'APIs & Services' menu with 'Credentials' selected. The main content area is titled 'Create credentials' and shows the 'OAuth Consent Screen' step. Below this, the 'Scopes (optional)' step is active. A red arrow points to the 'ADD OR REMOVE SCOPES' button. The page also shows sections for 'Your non-sensitive scopes', 'Your sensitive scopes', and 'Your restricted scopes', each with a table header for API, Scope, and User-facing description.

Google Account Automatic Sampling and Analysis API Create credentials - APIs & Services

Start your Free Trial with \$300 in credit. Don't worry—you won't be charged if you run out of credits. [Learn more](#) DISMISS ACTIVATE

Google Cloud Platform YoutubeScraper Search Products, resources, docs (/)

APIs & Services

- Dashboard
- Library
- Credentials
- OAuth consent screen
- Domain verification
- Page usage agreements

Create credentials

- OAuth Consent Screen
- Scopes (optional)

You can also choose scopes when you register your app.

Scopes express the permissions you request users to authorize for your app and allow your project to access specific types of private user data from their Google Account. [Learn more](#)

ADD OR REMOVE SCOPES

Your non-sensitive scopes

| API | Scope | User-facing description |
|--------------------|-------|-------------------------|
| No rows to display | | |

Your sensitive scopes

Sensitive scopes are scopes that request access to private user data.

| API | Scope | User-facing description |
|--------------------|-------|-------------------------|
| No rows to display | | |

Your restricted scopes

Restricted scopes are scopes that request access to highly sensitive user

Creating Credentials

Use the uppermost checkbox to select all scopes on all pages of the table. For this workshop it's sufficient to only select YouTube scopes, but you could use these credentials for other APIs in the future as well. Afterwards, click on "update".

Creating Credentials

Next, click on "save and continue" to confirm your selection of scopes

Google Account | Automatic Sampling and Analysis | API Create credentials - APIs & Services | +

console.developers.google.com/apis/credentials/wizard?project=youtubescraper-340807

Start your Free Trial with \$300 in credit. Don't worry—you won't be charged if you run out of credits. [Learn more](#) DISMISS ACTIVATE

Google Cloud Platform | YoutubeScraper

APIs & Services

- Dashboard
- Library
- Credentials
- OAuth consent screen
- Domain verification
- Page usage agreements

Create credentials

| API | Scope | User-facing description | |
|------------------------|--------------------------------|---|--|
| Cloud Monitoring API | .../auth/monitoring.write | Publish metric data to your Google Cloud projects | |
| Cloud Storage API | .../auth/devstorage.write_only | Manage your data in Google Cloud Storage | |
| Cloud Trace API | .../auth/trace.readonly | Read Trace data for a project or application | |
| Cloud Trace API | .../auth/trace.append | Write Trace data for a project or application | |
| Service Management API | .../auth/service.management | Manage your Google API service configuration | |

Rows per page: 10 11 - 20 of 29

Your restricted scopes

Restricted scopes are scopes that request access to highly sensitive user data.

| API | Scope | User-facing description |
|--------------------|-------|-------------------------|
| No rows to display | | |

SAVE AND CONTINUE

4 OAuth Client ID

5 Your Credentials

DONE CANCEL

Creating Credentials

Select "Desktop App" as the application type and specify the name of you set of credentials (can be any name). Click on "Create" to confirm

The screenshot shows the Google Cloud Platform console with the 'Create credentials' wizard open. The left sidebar shows the 'APIs & Services' menu with 'Credentials' selected. The main content area shows the 'Create credentials' steps: 'Credential Type' (checked), 'OAuth Consent Screen' (checked), 'Scopes (optional)' (checked), and 'OAuth Client ID' (4). The 'OAuth Client ID' step is active, showing a form with 'Application type' set to 'Desktop app' and 'Name' set to 'TuberScraping'. A note below the form states: 'Note: It may take 5 minutes to a few hours for settings to take effect'. At the bottom of the form are 'CREATE' and 'CANCEL' buttons. Below the form is a section titled 'Your Credentials' with 'DONE' and 'CANCEL' buttons. Red arrows point to the 'Application type' dropdown, the 'Name' text input, and the 'CREATE' button.

Google Account Automatic Sampling and Analysis API Create credentials - APIs & Services +

console.developers.google.com/apis/credentials/wizard?project=youtubescraper-340807

Start your Free Trial with \$300 in credit. Don't worry—you won't be charged if you run out of credits. [Learn more](#)

DISMISS ACTIVATE

Google Cloud Platform YoutubeScrapers

Search Products, resources, docs (/)

APIs & Services

Create credentials

Dashboard

Library

Credentials

OAuth consent screen

Domain verification

Page usage agreements

Credential Type

OAuth Consent Screen

Scopes (optional)

4 OAuth Client ID

A client ID is used to identify a single app to Google's OAuth servers. If your app runs on multiple platforms, each will need its own client ID. See [Setting up OAuth 2.0](#) for more information. [Learn more](#) about OAuth client types.

Application type * Desktop app

Name * TuberScraping

The name of your OAuth 2.0 client. This name is only used to identify the client in the console and will not be shown to end users.

Note: It may take 5 minutes to a few hours for settings to take effect

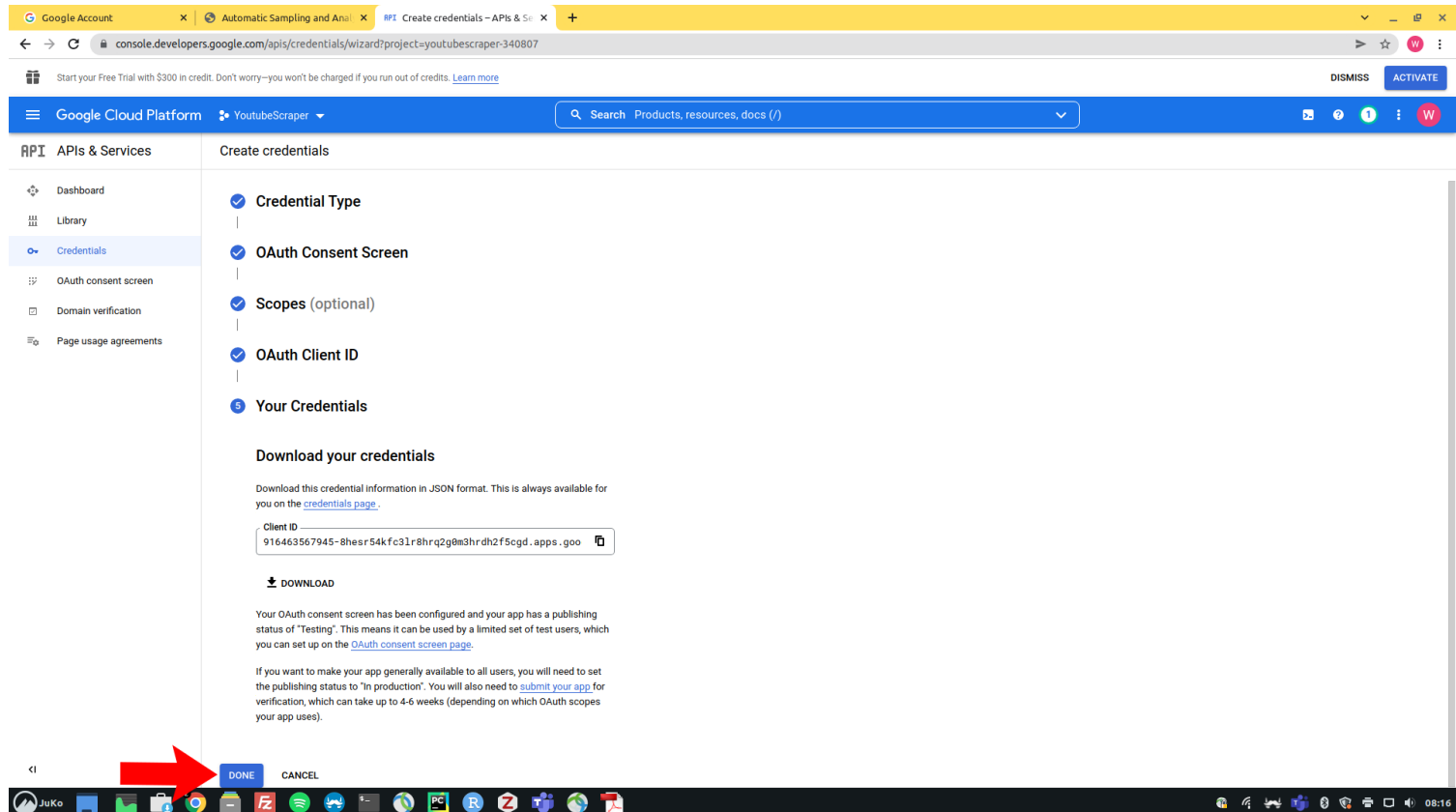
CREATE CANCEL

Your Credentials

DONE CANCEL

Creating Credentials

On the bottom of the page, click on "Done" to finalize your changes



Creating Credentials

Navigate to the "OAuth Consent Screen" tab in the menu on the left and click on "Add Test Users"

The screenshot shows the Google Cloud Platform console interface. On the left sidebar, the 'APIs & Services' menu is expanded, and the 'OAuth consent screen' option is highlighted with a red circle. A red arrow points from this menu item to the 'Add Users' button in the 'Test users' section of the main content area. The main content area displays the configuration for the 'TuberScraper' application. It includes sections for 'Publishing status' (set to 'Testing'), 'User type' (set to 'External'), and 'OAuth user cap' (set to '0 users (0 test, 0 other) / 100 user cap'). The 'Test users' section at the bottom has a '+ ADD USERS' button. The right sidebar contains a 'Learn' section with various links related to the OAuth consent screen.

Creating Credentials

In the sidebar panel opening from the right, enter your Gmail address as a test user and click on "save"

The screenshot displays the Google Cloud Platform console for the 'TuberScraper' application. The main panel shows the 'OAuth consent screen' configuration, with the 'Publishing status' set to 'Testing'. The 'User type' is 'External', and the 'OAuth user cap' is 100. The 'Test users' section is empty, with a '+ ADD USERS' button. A sidebar panel titled 'Add users' is open on the right, showing a warning about the 'Testing' status and a text input field containing 'workshoptester2022@gmail.com'. A red arrow points to the input field, and another red arrow points to the 'SAVE' button.

Creating Credentials

Next, go back to the credentials page using the menu on the left side

The screenshot shows the Google Cloud Platform console interface. The left sidebar contains the 'APIs & Services' menu, with 'Credentials' highlighted. A red arrow points to this menu item. The main content area displays the 'OAuth consent screen' configuration for the project 'youtubescraper-340807'. It includes sections for 'Test users' (with an 'ADD USERS' button), 'Filter' (with a search bar), 'User information' (showing 'workshopster2022@gmail.com'), 'SHOW LESS', 'OAuth rate limits', 'Your token grant rate' (set to 10,000), and a graph showing 'No data is available for the selected time frame'. The right sidebar contains a 'Learn' section with various links related to OAuth consent screens.

Creating Credentials

While we are here, we can also generate an API key that can be used for access to publicly available YouTube data using the API. Click on the blue "Create Credentials" button on the top and select "API key".

The screenshot shows the Google Cloud Platform console for the 'YoutubeScraper' project. The 'Credentials' page is active, and a red arrow points to the '+ CREATE CREDENTIALS' button. A dropdown menu is open, showing the following options:

- API key: Identifies your project using a simple API key to check quota and access
- OAuth client ID: Requests user consent so your app can access the user's data
- Service account: Enables server-to-server, app-level authentication using robot accounts

The 'API key' option is selected. Below the dropdown, there are sections for 'API Keys', 'OAuth 2.0 Client IDs', and 'Service Accounts'.

API Keys

| Name | Restrictions | Key | Actions |
|------------------------|--------------|-----|---------|
| No API keys to display | | | |

OAuth 2.0 Client IDs

Help me choose: Asks a few questions to help you decide which type of credential to use

| Name | Creation date | Type | Client ID | Actions |
|---------------|---------------|---------|----------------------|----------------------------|
| TuberScraping | Feb 9, 2022 | Desktop | 916463567945-8hes... | [Edit] [Delete] [Download] |

Service Accounts

Manage service accounts

| Email | Name | Actions |
|--------------------------------|------|---------|
| No service accounts to display | | |

Creating Credentials

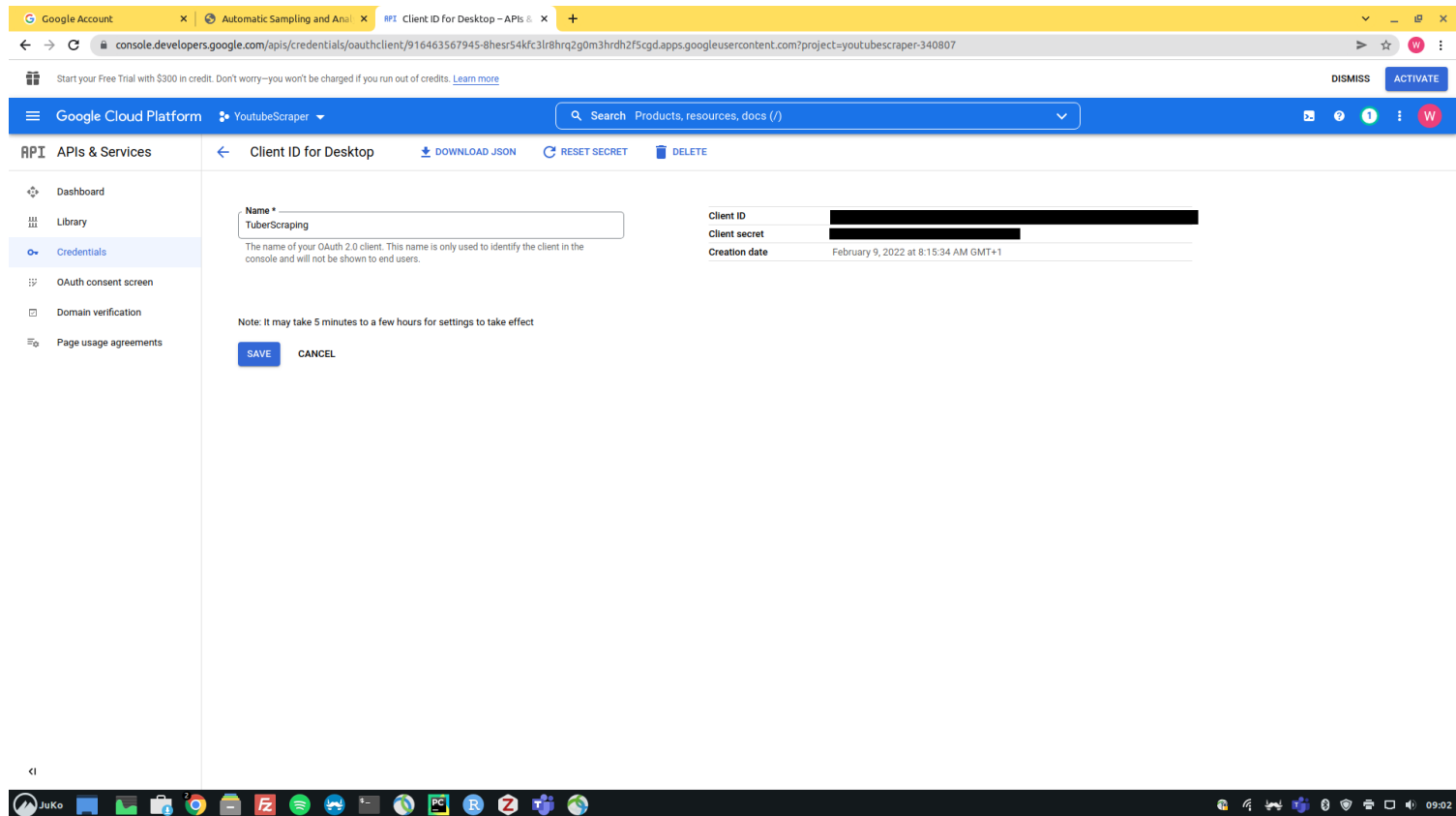
Now click on the "Oauth 2.0 Client ID" name that you specified before

The screenshot shows the Google Cloud Platform console for the project 'youtubescraper-340807'. The 'Credentials' page is active, displaying three sections: 'API Keys', 'OAuth 2.0 Client IDs', and 'Service accounts'. The 'OAuth 2.0 Client IDs' section contains a table with one entry, 'TuberScraping', which is highlighted by a red arrow. The 'Service accounts' section is currently empty.

| Name | Creation date | Type | Client ID | Actions |
|---------------|---------------|---------|----------------------|---------|
| TuberScraping | Feb 9, 2022 | Desktop | 916463567945-8hes... | |

Creating Credentials

Congratulations! You now have your credentials! You can see your client ID and secret on the top right of the screen.



Testing Access

You can now safely try whether your *YouTube* API access works as intended by running the following commands in R. Please do *NOT* save an access token when prompted by R (see instructions in code comments)

```
# installing the tuber package if not installed already
if("tuber" %in% installed.packages() != TRUE) {
  install.packages("tuber")
}

# loading tuber package
library(tuber)

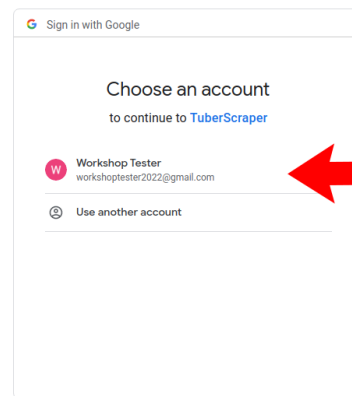
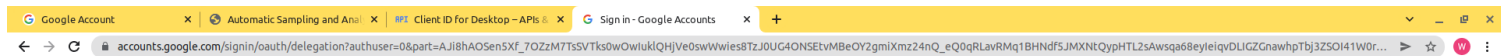
# Your Credentials (NEVER SHARE THIS INFORMATION)
ID <- "ENTER-YOUR-CLIENT-ID-HERE"
secret <- "ENTER-YOUR-CLIENT-SECRET-HERE"

# authentication
yt_oauth(ID,secret)

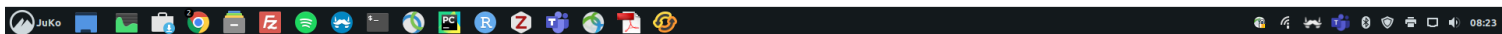
# You will be asked in the R-console to
# save an access token: Select "NO" by entering 2
# You will be sent to your browser to log in
```

Grant yourself access

In the browser window that was opened from your R session, select your new Gmail account

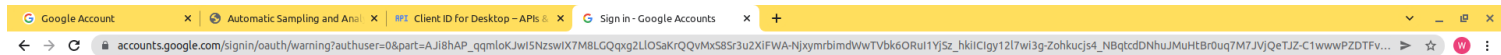


English (United States) ▼ Help Privacy Terms



Grant yourself access

Google warns you that the app has not been verified, you can trust yourself and click on "continue"



Continue

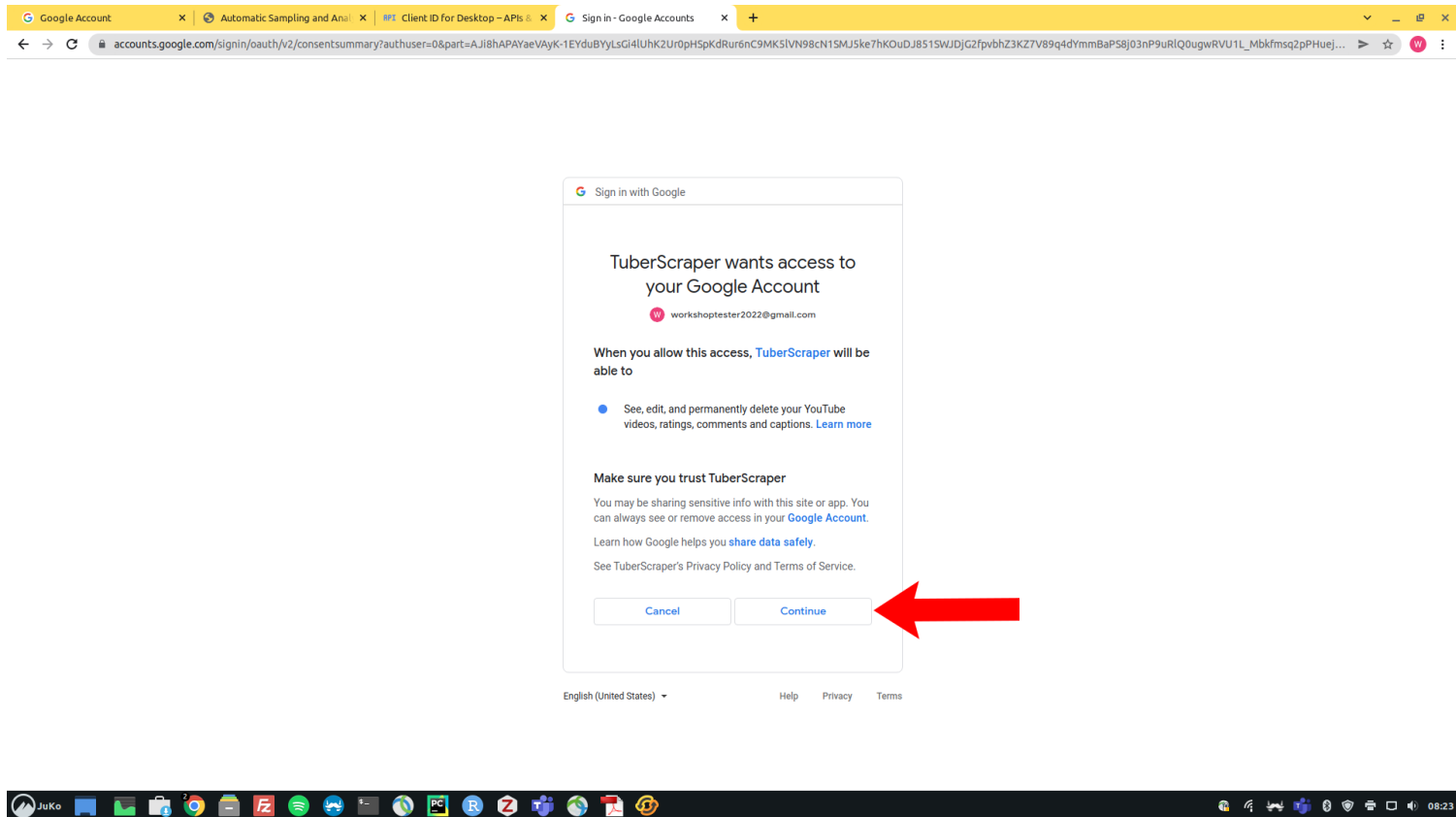
Back to safety

English (United States) ▾

Help Privacy Terms

Grant yourself access

Allow the app (and hence yourself) to make changes to the account you created



Grant yourself access

Confirm your choices once more by clicking on "Allow". Your browser should now display the following message: Authentication complete. Please close this page and return to R.

Authentication complete. Please close this page and return to R.

Test API call

To easily check if everything worked, let's try to collect some simple data for a video.

```
# get statistics of https://www.youtube.com/watch?v=HluANRwPyNo  
get_stats(video_id="HluANRwPyNo")
```

Output

If everything worked correctly, your output structure should look something like this. The actual numbers will vary because they might change in the meantime.

```
$id  
[1] "HluANRwPyNo"  
  
$viewCount  
[1] "21275354"  
  
$likeCount  
[1] "1043372"  
  
$favoriteCount  
[1] "0"  
  
$commentCount  
[1] "37859"
```

A Few Words of Advice on Handling Your *YouTube API Access*

- Have one account and project ready for the workshop for which you know that it works
- Do not use your API access too excessively before the workshop to avoid any risk of it being suspended
- Never share your OAuth login credentials! This can easily happen by accident when:
 - saving code in a GitHub Repo
 - sending scripts to colleagues
 - troubleshooting someone else's code
 - for added security you can use the **keyring package** (we'll say a bit more about this in the workshop)

**We hope that you are now all set up and
look forward to seeing you online!**