

REDCap Google Sheets

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Introduce:

Thanks for using our webapp. This web application is used to interact with the REDcap API

What can you do using this web app?

1. Export data to Google sheets.
2. Import data from Google sheets to REDCap.
3. Delete data from REDCap.

Dependencies

Install the `requirements.txt` file with `pip install -r requirements.txt`

- Use `pip3` on MacOS. ex. `pip3 install -r requirements.txt`

Using all commands below to install all modules.

```
pip install pandas
```

```
pip install --upgrade google-api-python-client google-auth-http2 google-auth-oauthlib
```

```
pip install pycap
```

Configuration

if you use these scripts, you need a `config.json` file in `config/` with the following contents:

```
{
  "api_key": "your-api-key",
  "api_url": "link-to-REDCap-API",
  "spreadsheet_id": "your-spreadsheet-id"
}
```

The user will also need a `clinet_secret.json` file in `config/`.

- To get the client secret.json you must go to:
<https://console.cloud.google.com/home/dashboard>
- On this page click:
 - Navigation Menu->APIs & Services->Credentials ->Desktop client 1
- On this page click:
 - "DOWNLOAD JSON" Move this file into your project directory

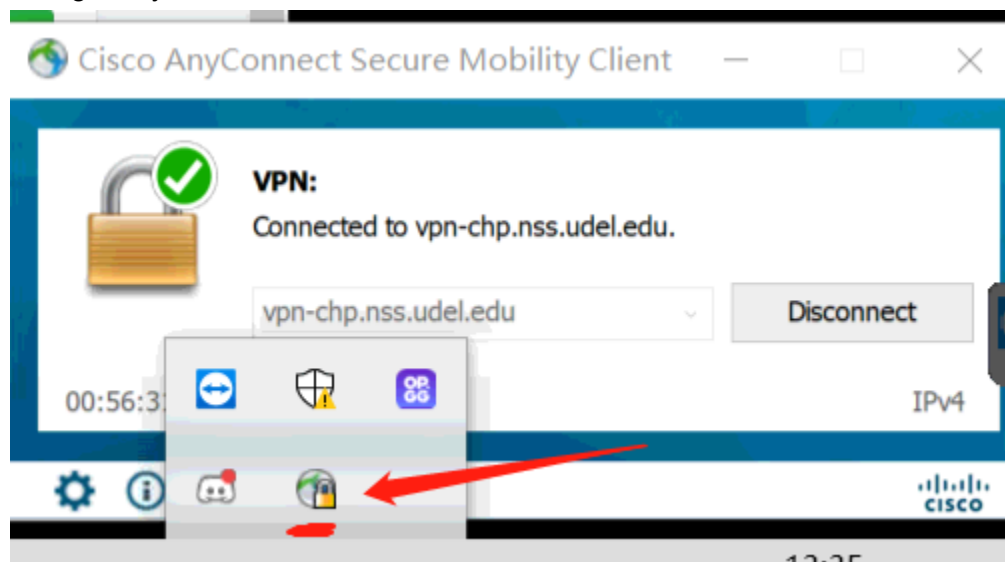
What do you need?

1. A Google account named Which has the right to edit Google Sheets.
2. A RedCap account and API key
3. Install the above Requirements
4. UD VPN

After installing the commands above.

Running the webapp

1. Login to your UD VPN



2.Run this python script with the following:

python app.py

Windows PowerShell

```
PS C:\Users\zheng\OneDrive\桌面\475-team5-s2lproject-main (3)\475-team5-s2lproject-main> python app.py
* Serving Flask app "app" (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: on
* Restarting with stat
* Debugger is active!
* Debugger PIN: 208-307-565
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
```

3. Copy this link to your website. (and do not exist this window)

```
Windows PowerShell
PS C:\Users\zheng\OneDrive\桌面\475-team5-s2lproject-main (3)\475-team5-s2lproject-main> python app.py
* Serving Flask app "app" (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: on
* Restarting with stat
* Debugger is active!
* Debugger PIN: 208-307-565
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
127.0.0.1 - - [04/May/2021 12:04:50] "GET /home HTTP/1.1" 200 -
127.0.0.1 - - [04/May/2021 13:04:50] "GET /static/is/scripts.js HTTP/1.1" 200 -
```

4. Then you will come to this page.

127.0.0.1:5000/home

Redcap Google Sheets [Sign in with Google](#)

[Home](#) [Settings](#)

Please enter your REDcap API key in the Settings

Redcap Data Preview

Refresh Redcap Data

Event

Participant

Import From Google Sheets

Events to Import

Target Sheet

Run Import

Export to Google Sheets

Events to Export

Target Sheet

Run Export

5.Next, log in to your Google account with the red button at the top right

The screenshot shows a web browser window with the URL 127.0.0.1:5000. The page title is "Redcap Google Sheets". In the top right corner, there is a red button labeled "Sign in with Google". Below the header, there are navigation links for "Home" and "Settings". A message box states "Please enter your REDcap API key in the Settings". The main content area is divided into two sections: "Redcap Data Preview" and "Import From Google Sheets" / "Export to Google Sheets". The "Redcap Data Preview" section includes a "Refresh Redcap Data" button, an "Event" dropdown menu, and a "Participant" dropdown menu. The "Import From Google Sheets" section includes "Events to Import" (All Events), "Target Sheet" (DISABLED), and a "Run Import" button. The "Export to Google Sheets" section includes "Events to Export" (All Events), "Target Sheet" (New Sheet), and a "Run Export" button. A red arrow points from the "Event" dropdown menu to the "Sign in with Google" button.

Redcap Google Sheets

Sign in with Google

Home Settings

Please enter your REDcap API key in the Settings

Redcap Data Preview

Refresh Redcap Data

Event

Participant

all

Import From Google Sheets

Events to Import

Target Sheet

Run Import

All Events

DISABLED

Import

Export to Google Sheets

Events to Export

Target Sheet

Run Export

All Events

New Sheet

Export

6.When you log into your Google account, agree to all options, permissions, and continue.

7. Next, Go to the setting at the top left

← → ↻ ⓘ 127.0.0.1:5000/home

Redcap Google Sheets ⚙️ [Sign in with Google](#)

[Home](#) [Settings](#)

Please enter your REDcap API key in the Settings

Redcap Data Preview

Refresh Redcap Data ⌂ Event ⌵ Participant all ⌵

Import From Google Sheets

Events to Import Selected Ev ⌵ Target Sheet DISABLED ⌵ Run Import ⌂ Import

Export to Google Sheets

Events to Export All Events ⌵ Target Sheet New Sheet ⌵ Run Export ⌂ Export

8. Then submit your RedCap API

Redcap Google Sheets ⚙️ Z

[Home](#) [Settings](#)

REDcap API key entered successfully!

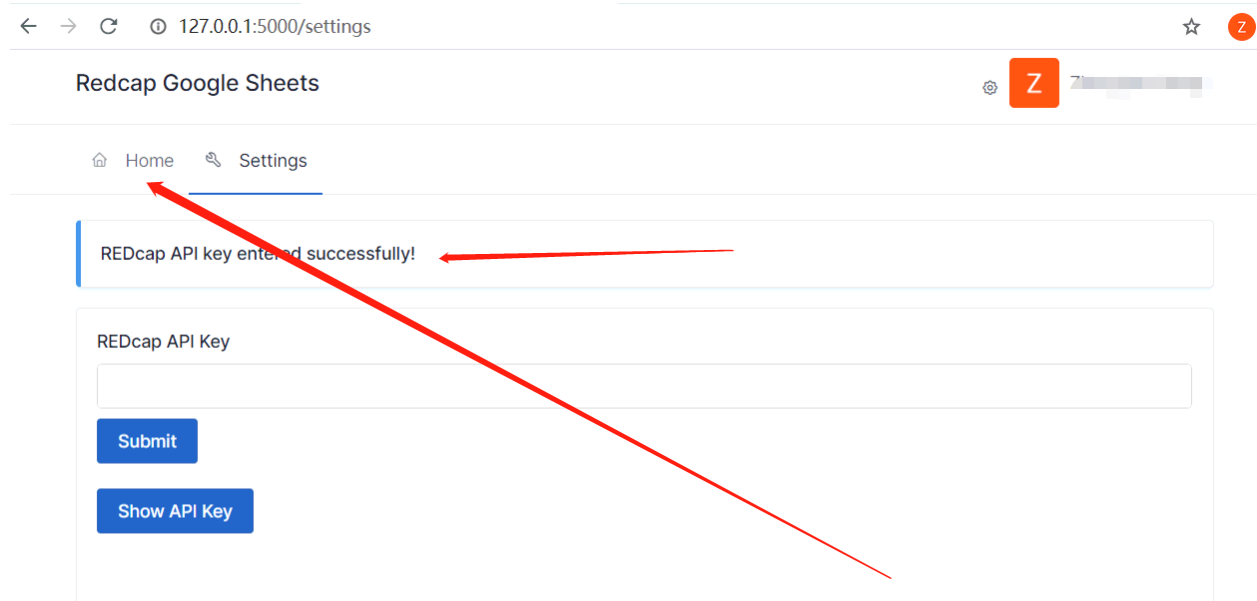
REDcap API Key

[Submit](#)

[Show API Key](#)

Your current REDcap API key is: C89AF68BC

9. After you submit your REDCap API, it will show that REDCap Api key entered successfully! Then back to the home page in the top left



The screenshot shows a web browser window with the address bar displaying "127.0.0.1:5000/settings". The page title is "Redcap Google Sheets". In the top right corner, there is a star icon and a red circle with a white "Z". Below the title bar, there is a navigation menu with "Home" and "Settings" links. The "Settings" link is underlined. A red arrow points from the "Home" link to the "REDcap API key entered successfully!" message. Another red arrow points from the message to the "Submit" button. Below the message, there is a form with the label "REDcap API Key", a text input field, and two buttons: "Submit" and "Show API Key".

Redcap Google Sheets

Home Settings

REDcap API key entered successfully!

REDcap API Key

Submit

Show API Key

Congratulations, you've completed all the steps. Now you can start using this app!!!

Help on how to use all the features.

1.How to export data to Google sheets.

1.In the lower right section, you can export data to Google Sheets.

The screenshot displays the 'Redcap Google Sheets' web application interface. At the top, there's a navigation bar with 'Home' and 'Settings' links. The main content area is divided into two sections: 'Redcap Data Preview' and 'Export to Google Sheets'.

Redcap Data Preview: This section includes a 'Refresh Redcap Data' button labeled 'Pull Data'. Below it, there are dropdown menus for 'Event' (set to 'event_1_arm_1') and 'Participant' (set to 'all'). A table displays data for a single participant:

delete	participant_id	redcap_repeat_instrument	redcap_repeat_instance	dob	email	has_diabetes	consent__1
<button>delete</button>	1	agitated_behavior_scale	1	n/a	n/a	n/a	n/a

Red arrows point from the 'event_1_arm_1' dropdown, the 'Participant' dropdown, and the 'delete' button in the table to the 'Export to Google Sheets' section.

Export to Google Sheets: This section is circled in red and contains controls for exporting data. It includes dropdowns for 'Events to Export' (set to 'All Events') and 'Target Sheet' (set to 'New Sheet'), followed by a green 'Export' button.

2. You can export all events or you can select the data which you want to. And also to choose the target sheet. Finally, click Export button

Redcap Data Preview

Refresh Redcap Data Event Participant

[Pull Data](#) event_1_arm_1 all

delete	participant_id	redcap_repeat_instrument	redcap_repeat_instance	dob	email	has_diabetes	consent__1
delete	1	agitated_behavior_scale	1	n/a	n/a	n/a	n/a

Import From Google Sheets

Events to Import Target Sheet Run Import

All Events DISABLED [Import](#)

Export to Google Sheets

Events to Export Target Sheet Run Export

All Events New Sheet [Export](#)

2.How to import data from Google sheets to REDCap.

1.In the lower left section, you can import data from Google Sheets to REDCap

127.0.0.1:5000/home

Redcap Google Sheets

Home Settings

Redcap Data Preview

Refresh Redcap Data Event Participant

[Pull Data](#) event_1_arm_1 all

delete	participant_id	redcap_repeat_instrument	redcap_repeat_instance	dob	email	has_diabetes	consent__1
delete	1	agitated_behavior_scale	1	n/a	n/a	n/a	n/a

Import From Google Sheets

Events to Import Target Sheet Run Import

All Events DISABLED [Import](#)

Export to Google Sheets

Events to Export Target Sheet Run Export

All Events New Sheet [Export](#)

2. You can import all events to REDCap or you can select the data which you want to. And also to choose the target sheet. Finally, click Import Button

[Home](#) [Settings](#)

Redcap Data Preview

Refresh Redcap Data

Pull Data

Event

Participant

event_1_arm_1

all

delete	participant_id	redcap_repeat_instrument	redcap_repeat_instance	dob	email	has_diabetes	consent__1
<div>delete</div>	1	agitated_behavior_scale	1	n/a	n/a	n/a	n/a

Import From Google Sheets

Events to Import

Target Sheet

Run Import

All Events

All Events

Selected Events

DISABLED

Import

Export to Google Sheets

Events to Export

Target Sheet

Run Export

All Events

New Sheet

Export

3.How to delete data from REDCap.

1.In the middle section, you can delete data from REDCap

[Home](#) [Settings](#)

Redcap Data Preview

Refresh Redcap Data

Pull Data

Event

Participant

event_1_arm_1

all

delete	participant_id	redcap_repeat_instrument	redcap_repeat_instance	dob	email	has_diabetes	consent__1
<div>delete</div>	1	agitated_behavior_scale	1	n/a	n/a	n/a	n/a

Import From Google Sheets

Events to Import

Target Sheet

Run Import

All Events

DISABLED

Import

Export to Google Sheets

Events to Export

Target Sheet

Run Export

All Events

New Sheet

Export

2. You can click the delete button (red one) to delete the data, but make sure that you have permission to delete those. If you don't have permission, it will show "you don't have permission to delete". If you have permission to delete, it will show "delete successfully."
3. You can choose which event, and which participant ID you want to delete.