

# Classroom Tracking Tutorial

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To understand how to use classroom tracking, let's create a very basic maths lesson, and track the progress of the students in it. First, we need to make a worksheet the students can access. Here's my example worksheet:

[https://docs.google.com/document/d/1F1hIJ-8gXZj\\_jgYzyGu9qnOmQTrS\\_R22Z-ysAMA\\_DKc/edit?usp=sharing](https://docs.google.com/document/d/1F1hIJ-8gXZj_jgYzyGu9qnOmQTrS_R22Z-ysAMA_DKc/edit?usp=sharing)

You can see in the above worksheet that there are questions the students complete using an online link. Their responses are sent to:

[https://docs.google.com/spreadsheets/d/1mP1KPKptbeLn\\_6vpFOipmS6BNGG9zIBkHWt1kc966XY/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1mP1KPKptbeLn_6vpFOipmS6BNGG9zIBkHWt1kc966XY/edit?usp=sharing)

This is your main way of telling whether students gave the correct response or not. As this is a google spreadsheet, you can take advantage of some spreadsheet functionality to help you keep track of how the students are doing.

The questions are determined by the spreadsheet at:

[https://docs.google.com/spreadsheets/d/1sM9jD6Pe9fkXw9mn\\_vj-4D-lw1c6BPSNXeP0yVPiHcg/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1sM9jD6Pe9fkXw9mn_vj-4D-lw1c6BPSNXeP0yVPiHcg/edit?usp=sharing)

You can download the resources above directly, or from the github repository:

## **Worksheet**

[https://raw.githubusercontent.com/some-open-solutions/classroom-tracking/master/examples/Correlation\\_Workshop\\_Example.docx](https://raw.githubusercontent.com/some-open-solutions/classroom-tracking/master/examples/Correlation_Workshop_Example.docx)

## **Question spreadsheet**

[https://raw.githubusercontent.com/some-open-solutions/classroom-tracking/master/examples/Correlation\\_Example\\_Questions.xlsx](https://raw.githubusercontent.com/some-open-solutions/classroom-tracking/master/examples/Correlation_Example_Questions.xlsx)

## **Response spreadsheet**

[https://raw.githubusercontent.com/some-open-solutions/classroom-tracking/master/examples/Correlation\\_Example\\_Responses.xlsx](https://raw.githubusercontent.com/some-open-solutions/classroom-tracking/master/examples/Correlation_Example_Responses.xlsx)

## Creating a google script

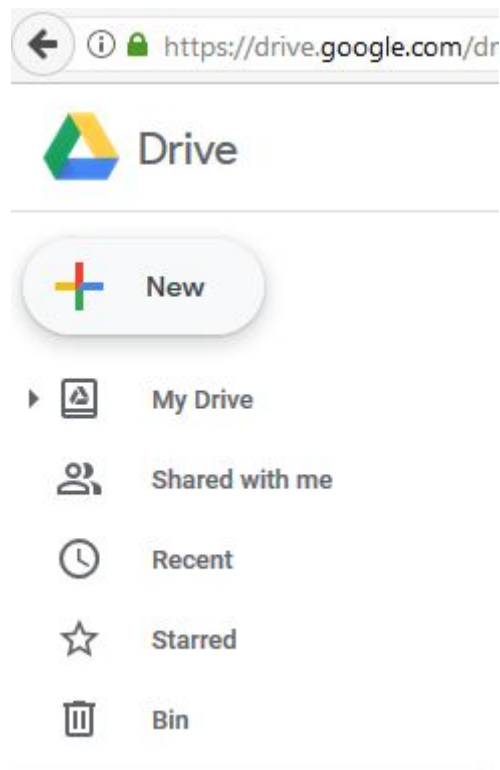
A free way to do this is use google scripts functionality. The first, and most important step, is to

**set up a new google account for this! This script will allow anyone to write to your google account (which is the point). Whilst this should be done in a very controlled way, if there are any security issues with the script you are making your content on the account vulnerable.**

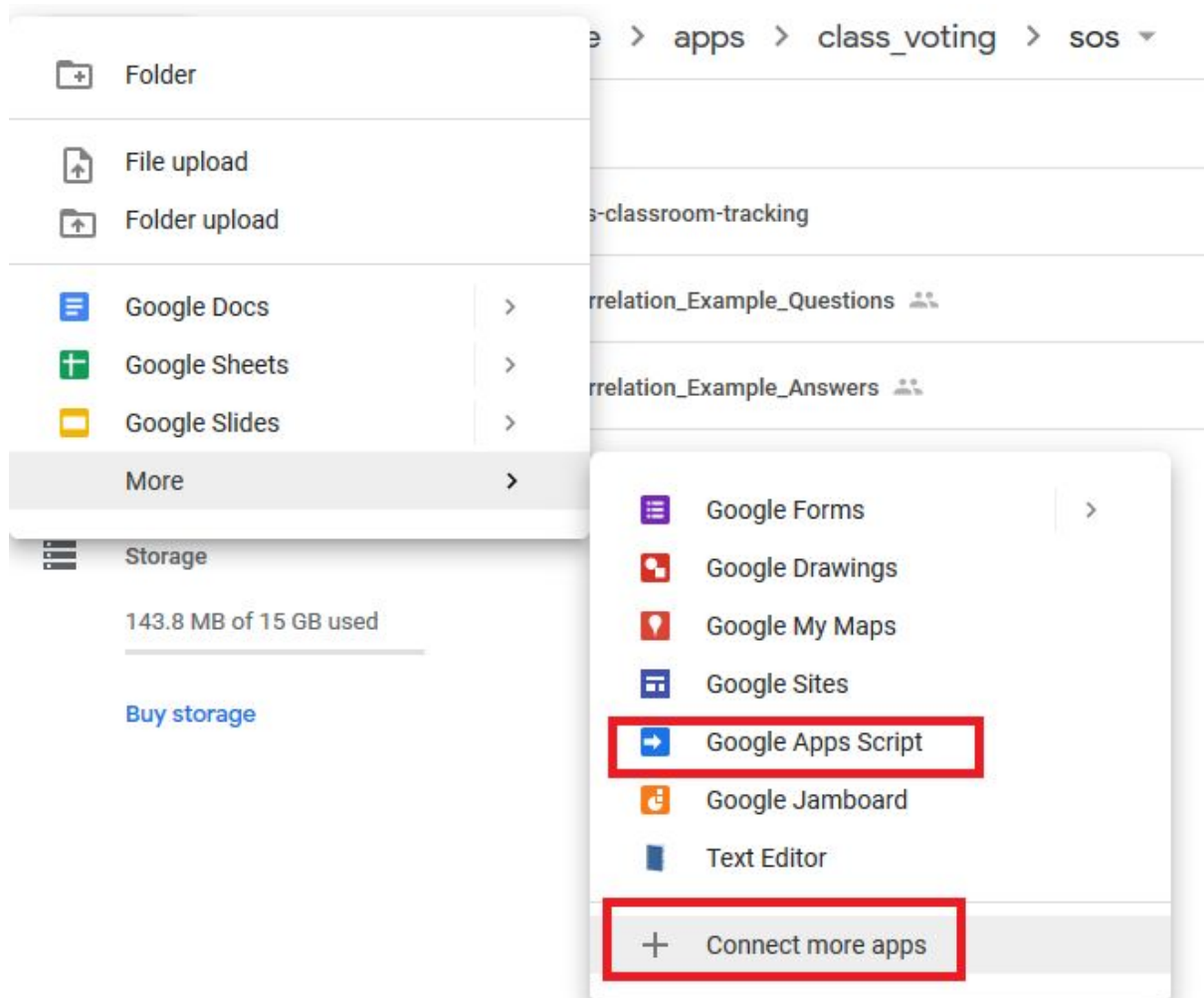
Once you have created a specific google account for classroom-tracking, you need a copy of the script you'll use. This should be available at:

<https://some-open-solutions.github.io/classroom-tracking/google-script.js>. Just select all the code there and copy it (e.g. to notepad).

Now we need to create a script on your new google drive account. Click on the new button in the top left corner:

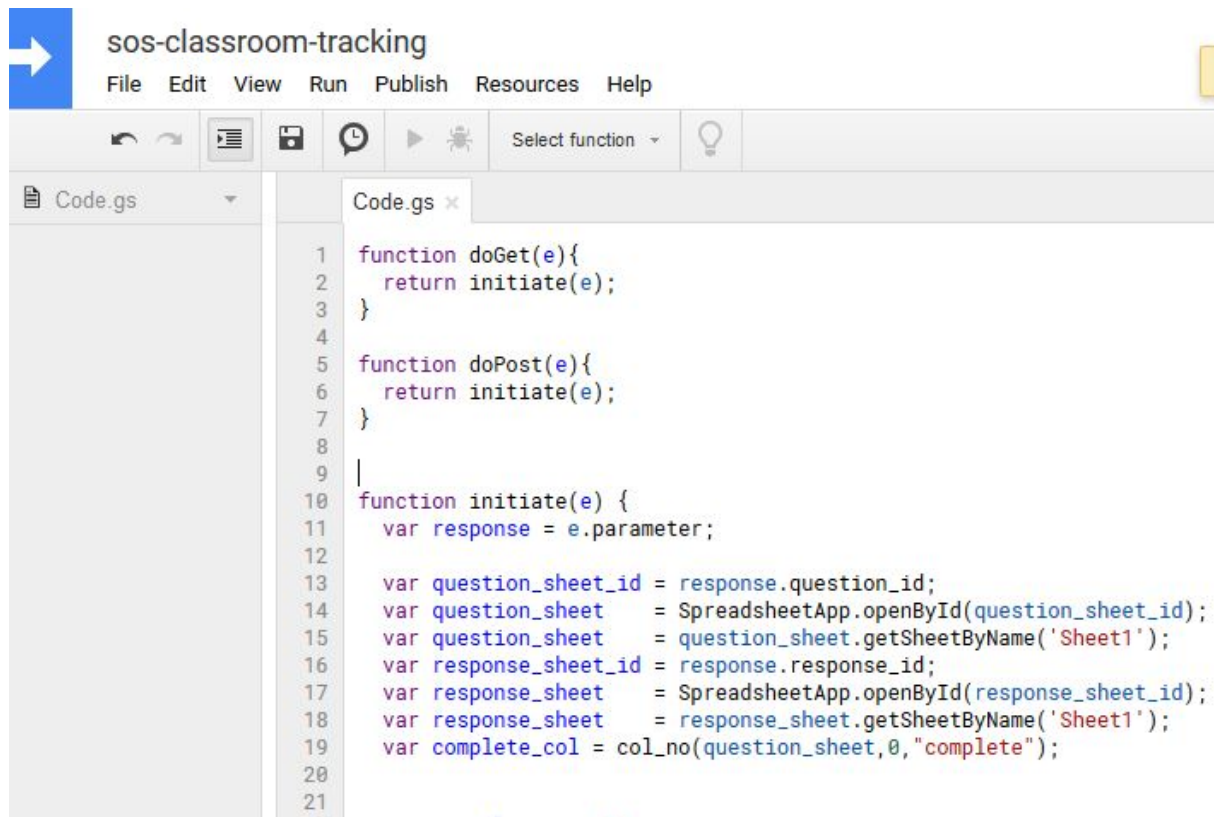


You might already be able to add a script, or **connect** scripts as a new app:



If you need to connect google scripts, click on the **+ Connect more apps** button and then install it. You should then be able to repeat the previous steps to select **Google Apps Script** option above.

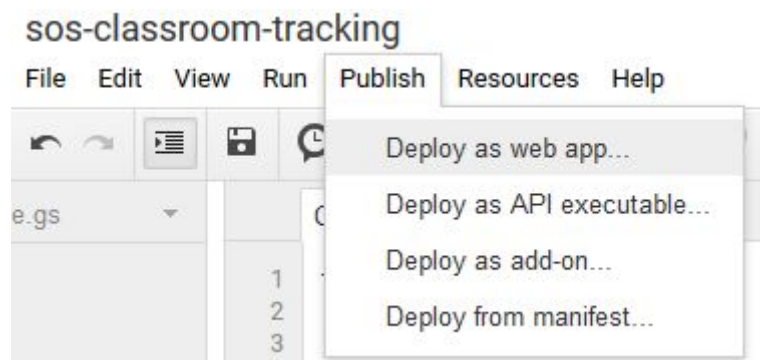
When you're in the new script, copy and paste the code for the google script into it (**make sure to delete the default code first!**). Your script should look something like:



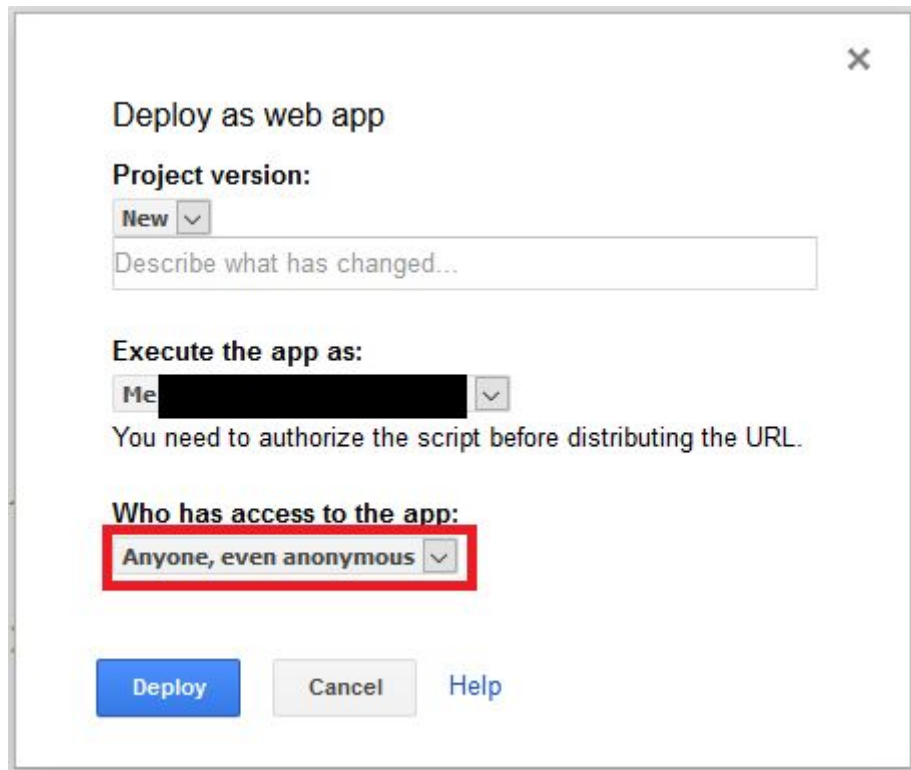
```
1 function doGet(e){
2   return initiate(e);
3 }
4
5 function doPost(e){
6   return initiate(e);
7 }
8
9 |
10 function initiate(e) {
11   var response = e.parameter;
12
13   var question_sheet_id = response.question_id;
14   var question_sheet = SpreadsheetApp.openById(question_sheet_id);
15   var question_sheet = question_sheet.getSheetByName('Sheet1');
16   var response_sheet_id = response.response_id;
17   var response_sheet = SpreadsheetApp.openById(response_sheet_id);
18   var response_sheet = response_sheet.getSheetByName('Sheet1');
19   var complete_col = col_no(question_sheet,0,"complete");
20
21 }
```

If you have two **doGets** at the top, you need to delete the original ones.

Once you have the above script, you need to save it, and then publish it! To publish, click on **Publish** and then **Deploy as web app...**



After which you should see the following:



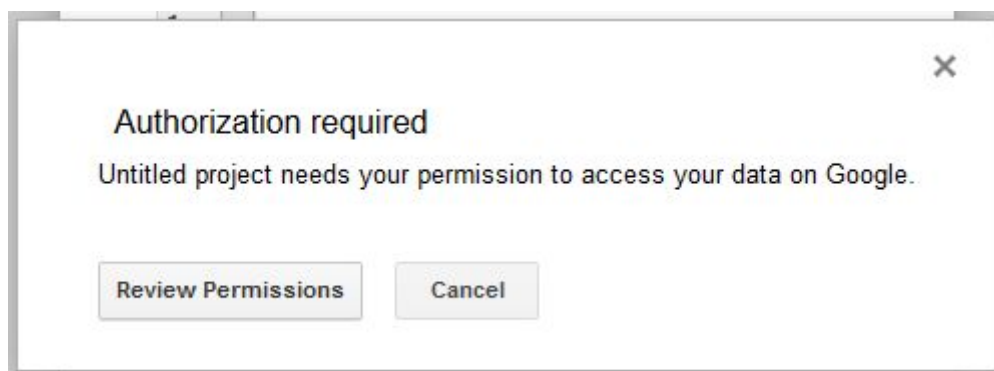
A dialog box titled "Deploy as web app" with a close button (X) in the top right corner. It contains three sections: "Project version:" with a "New" dropdown and a text field "Describe what has changed..."; "Execute the app as:" with a dropdown showing "Me" and a blacked-out email address, followed by the text "You need to authorize the script before distributing the URL."; and "Who has access to the app:" with a dropdown showing "Anyone, even anonymous", which is highlighted with a red rectangle. At the bottom are three buttons: "Deploy" (blue), "Cancel" (gray), and "Help" (blue).

Importantly, you need to execute the app as yourself, which should be the default option ("Me ([your e-mail address])")

You need to change the setting for **Who has access to the app** to "Anyone, even anonymous". This allows your students to submit responses, so it is not optional.

Once you have made the setting look, as the above, you can click **Deploy**.

You should now see something like:



A dialog box titled "Authorization required" with a close button (X) in the top right corner. It contains the text "Untitled project needs your permission to access your data on Google." and two buttons at the bottom: "Review Permissions" and "Cancel".

Select **Review Permissions** to proceed.

After selecting the account you've been using (**AGAIN, NOT YOUR PERSONAL ACCOUNT**) you should see something like:



## This app isn't verified

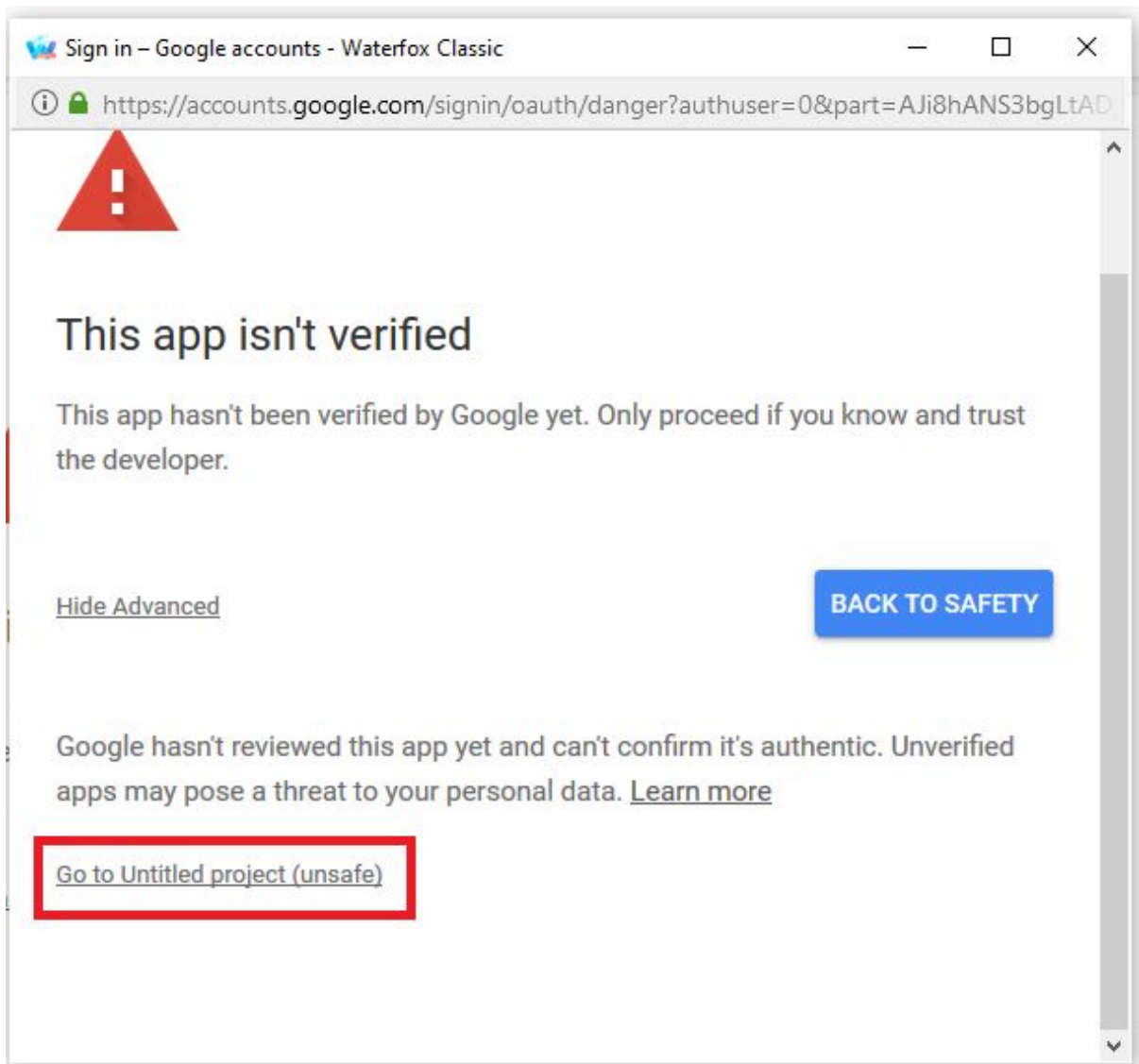
This app hasn't been verified by Google yet. Only proceed if you know and trust the developer.

Advanced

BACK TO SAFETY

**That's right, it's not a good idea to do this unless you trust the developer. Another reason not to use your personal gmail account!**

Assuming that you're using the new gmail account you created just for this classroom tracking, you can click on the **Advanced** link above. Then you should see:



Click now on **Go to [your project name] (unsafe)**. Ideally, you'll now see something like:

## Untitled project wants to access your Google Account

 haffeygames@gmail.com

This will allow **Untitled project** to:

- See, edit, create and delete your spreadsheets in Google Drive



### Make sure that you trust Untitled project

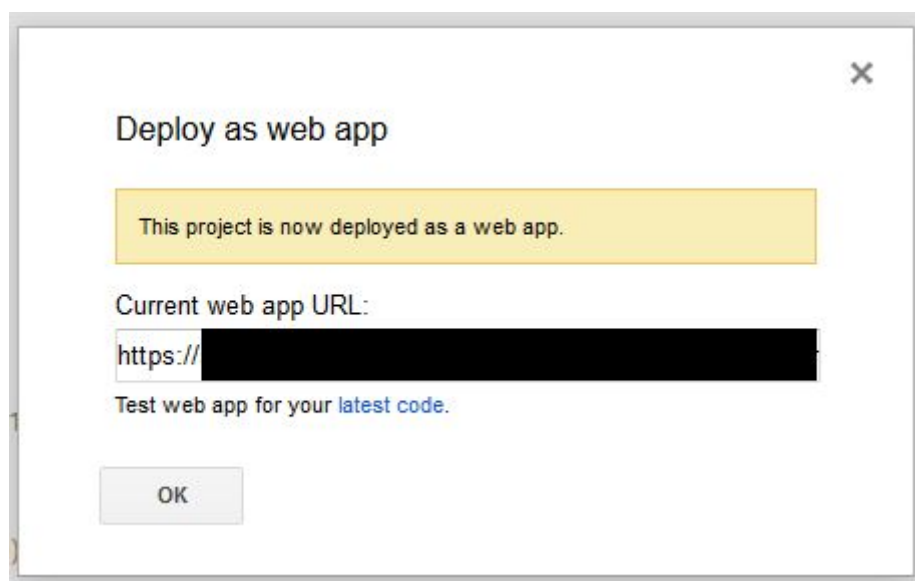
You may be sharing sensitive info with this site or app. Find out how Untitled project will handle your data by reviewing its terms of service and privacy policies. You can always see or remove access in your [Google Account](#).

[Find out about the risks](#)

Cancel

Allow

The next step is to click on **Allow** and then you should be able to proceed, and get the url of your script!

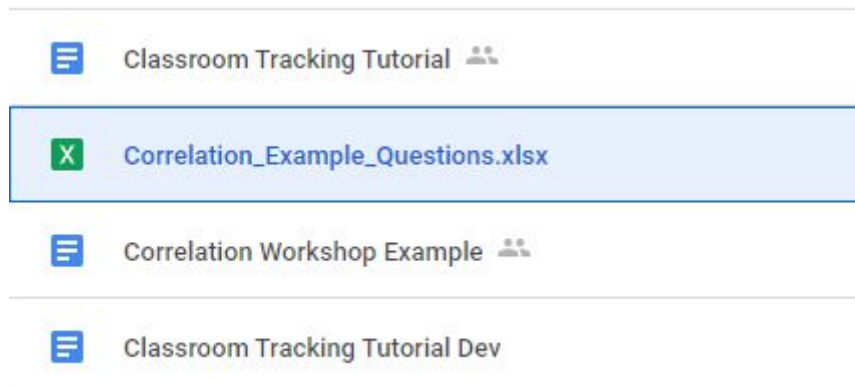




This is the **Script url** we will be referring to later.

## Question sheet

The easiest way to have a working question sheet is to download the [example question sheet](#) and upload it to your google drive. Once you have done uploaded it, the folder you uploaded it to might look something like this:



When you try to open the sheet, it may not be ready to be used as a google sheet yet, you may get something like:

A screenshot of a Google Sheets interface. The spreadsheet is titled 'Correlation\_Example\_Questions.xlsx'. The table has 6 columns: A, B, C, D, E, and F. The rows contain various questions and answers. The first row is a header row. The second row contains a question about a webpage helping with a choice, with a list of options in column C. The third row contains a question about which session to choose, with a list of options in column C. The fourth row contains a question about what is your anonym text. The fifth row contains a question about please update your 1. which of the follo choice, with a list of options in column C. The sixth row contains a question about please complete the choice, with a list of options in column C. The seventh row contains a question about well done, you've cc text. The eighth row contains a question about are dogs taller than cats? Are there more dogs in the UK than Cat. The ninth row contains a question about does the height of a dog predict its weight?. The tenth row contains a question about Pearson's R or Spearman's Rho. The eleventh row contains a question about Pearson's R or Spearman's Rho. The twelfth row contains a question about Pearson's R or Spearman's Rho. The thirteenth row contains a question about Pearson's R or Spearman's Rho. The fourteenth row contains a question about Pearson's R or Spearman's Rho. The fifteenth row contains a question about Pearson's R or Spearman's Rho. The sixteenth row contains a question about Pearson's R or Spearman's Rho. The seventeenth row contains a question about Pearson's R or Spearman's Rho. The eighteenth row contains a question about Pearson's R or Spearman's Rho. The nineteenth row contains a question about Pearson's R or Spearman's Rho. The twentieth row contains a question about Pearson's R or Spearman's Rho.

	A	B	C	D	E	F
1	question	type	responses	answer		
2	This webpage helps	choice	Five Ole dole Group A - Friday 12pm  Group B - Wednesday 9am  Group C - Tuesday 12pm  Group D - Friday 10am  Group E - Thursday 2pm  Group F - Thursday 3pm  Group G - Tuesday 4pm			
3	Which session are yo	choice				
4	What is your anonym	text				
5	Please update your v					
6	1. which of the follo	choice	Are dogs taller than cats? Are there more dogs in the UK than Cat	Does the height of a dog predict its weight?		
7	Please complete the	choice	T-test Chi-Square Pearson's R or Spearman's Rho	Pearson's R or Spearman's Rho		
8	Well done, you've cc	text				
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Click on the **Open with Google sheets** button to proceed. Once google has converted it, you should now see:

Correlation\_Example\_Questions .XLSX

File Edit View Insert Format Data Tools Help Last edit was 5 minutes ago

100% £ % .0 .00 123 Arial 10 B I S A

	A	B	C	D
1	question	type	responses	answer
2	This webpage he choice		Fine Okie dokie	
3	Which session a choice		Group A - Friday 12pm  Group B - Wednesday 9am  Group C - Tuesday 12pm  Group D - Friday 10am  Group E - Thursday 2pm  Group F - Thursday 3pm  Group G - Tuesday 3pm  Group H - Tuesday 4pm	
4	What is your and text			
5	Please update y 1. which of the f choice		Are dogs taller than cats? Are there more dogs in the	Does the height of a dog predict its weight?
6	Please complete choice		T-test Chi-Square Pearson's R or Spearman's Rho	Pearson's R or Spearman's Rho
7	Well done, you've text			

... which means you're ready to start editing. The four columns:

**question:** This is the text you want the student to see when looking at the question. This is html code, so if you want a line break you'll need to write `<br>` instead of just enter (press CTRL-Enter in google sheets to get a line break).

**type:** there are two types of questions you can give at the moment:

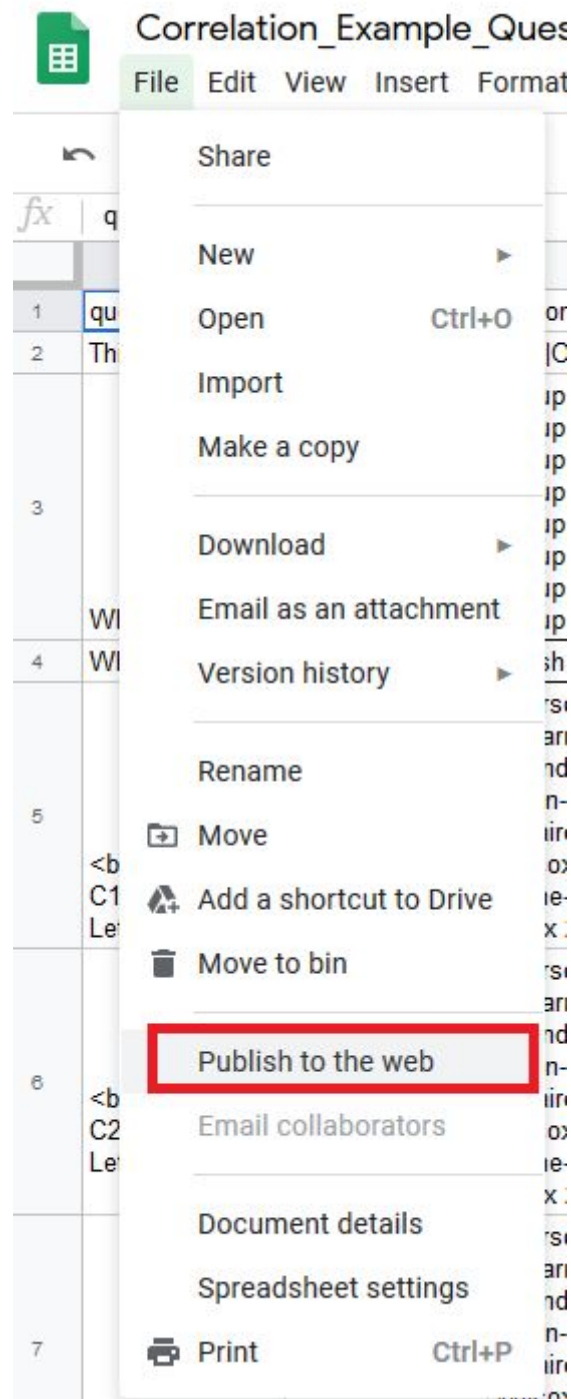
- choice: these are multiple choice questions (see responses and answer)
- text: this is just a text input

**responses:** this is only relevant for (multiple) choice questions. To separate the responses the student can give, put a pipe (|) between each possible response. On a british windows keyboard, the pipe key is to the left of the Z key (and you need to press shift).

**answer:** this is the correct answer. The student will not be able to proceed until they've given the correct answer. This only works for (multiple) **choice** questions at the moment.

You can now edit the sheet to ask the questions you want.

Once you have completed the question sheet, you need to publish it for Classroom tracking to be able to find it. To do this, click on **Publish to the web**:



And then leave the default settings and click **Publish**:

## Publish to the web

×

This document is not published to the web.

Make your content visible to anyone by publishing it to the web. You can link to or embed your document. [Learn more](#)

Link

Embed

Entire Document ▾

Web page ▾

Publish

▼ Published content and settings

Entire Document ▾

Start publishing

☒ Automatically republish when changes are made

This spreadsheet is now published, so Classroom Tracker can now find it. Classroom tracker needs the **sheet id**, which is part of the URL of the sheet you've just published. The ID of the example question sheet is **1sM9jD6Pe9fkXw9mn\_vj-4D-lw1c6BPSNXeP0yVPiHcg**. This is part of:

[https://docs.google.com/spreadsheets/d/1sM9jD6Pe9fkXw9mn\\_vj-4D-lw1c6BPSNXeP0yVPiHcg/edit](https://docs.google.com/spreadsheets/d/1sM9jD6Pe9fkXw9mn_vj-4D-lw1c6BPSNXeP0yVPiHcg/edit)

Take the same relative part of your spreadsheet URL to get the **sheet id** that you will need for the **question sheet** input later.

## Response sheet

Again, the simplest way to get started is to download the [example response spreadsheet](#) and upload it to your google drive space as described above.

Importantly, you don't need to publish this sheet, you can keep this private if you're the only person who needs to see the responses. However, you may want to share this sheet with other teaching staff if there are a few of you who will be giving students feedback.

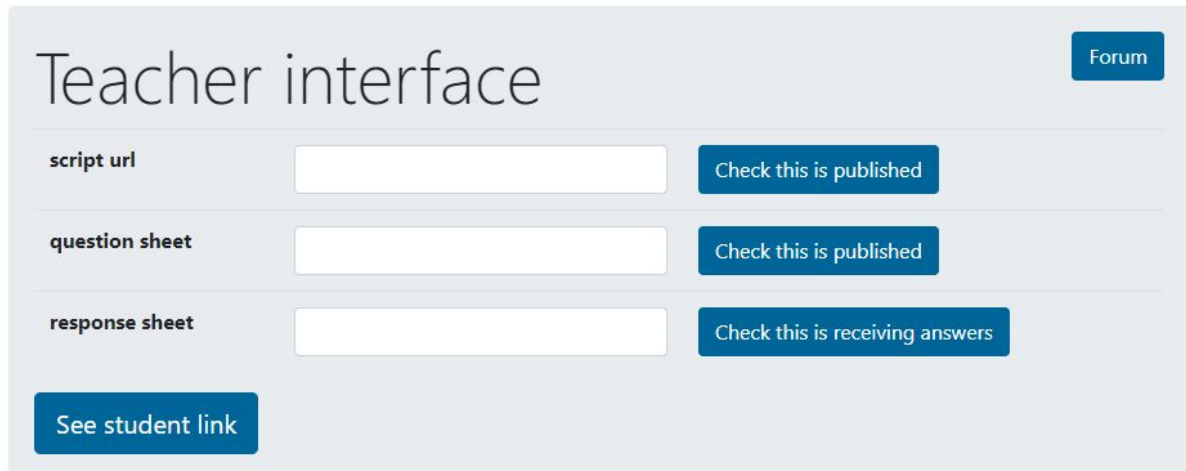
All you need to do is get the sheet id as described above. Using the example responses sheet, the url for it is:

[https://docs.google.com/spreadsheets/d/1mP1KPKptbeLn\\_6vpFOipmS6BNGG9zIBkHWt1kc966XY/edit#gid=0](https://docs.google.com/spreadsheets/d/1mP1KPKptbeLn_6vpFOipmS6BNGG9zIBkHWt1kc966XY/edit#gid=0)

So the code **sheet id** is `1mP1KPKptbeLn_6vpFOipmS6BNGG9zIBkHWt1kc966XY`, which is what we'll need for the **response sheet** input next.

## Putting this all together in Classroom Tracker

Once you've done the previous steps, you're ready to create a link for your students. Go to <https://some-open-solutions.github.io/classroom-tracking> and you should see something like this:



The screenshot shows a web interface titled "Teacher interface" in a large, light blue font. In the top right corner, there is a small blue button labeled "Forum". Below the title, there are three rows of input fields and buttons. The first row has a label "script url" on the left, a white text input field in the middle, and a blue button labeled "Check this is published" on the right. The second row has a label "question sheet" on the left, a white text input field in the middle, and a blue button labeled "Check this is published" on the right. The third row has a label "response sheet" on the left, a white text input field in the middle, and a blue button labeled "Check this is receiving answers" on the right. At the bottom left of the interface, there is a large blue button labeled "See student link".

This system allows you to see on a spreadsheet what answers your students are giving in real time as they complete the link you create by filling in the above inputs.

To use this with Google (i.e. for free and without managing a server), you will need to copy this [Google script](#)

Instructions for using this can be found [here](#).

Fill in the above inputs with the links you created earlier, and then click on **See student link** to pilot out the class.