

# Problem set 4 - Git and Google Trends

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In this problem set, you will produce a report using Google Trends data, and put it on your Github account.

## Git and Github - 15 minutes

1. Sign in your account on Github
2. Go to <https://github.com/rossihabibi/rprog2017-ps4> This is the repo for this problem set. The point of the tutorial is to use the code from the repo, and produce a report from Google Trend on your own.
3. On the github page, fork the repo (Button : FORK - top left of the page). - When you fork a public repo, you will have a copy of it in your own github account, and you can make changes to this copy. Now, go check in your own Github that you have a new repo called rprog2017-ps4
4. On the top left of the screen in YOUR version of the repo, click on Clone or Download, and COPY the address it shows you. This is the address of this repo, you can link a folder on your computer to it, and then make changes to the repo directly from your computer.
5. On your own computer, open Terminal (Mac) or Command Prompt (or Powershell, in Windows). Navigate to the folder of this class (rprog) using the command `cd`. Then : Type “git clone <>” and hit ENTER. It will tell you it’s cloning into a folder. When it is done, you can go check inside rprog (or whatever folder you cloned in) that there is a new folder called rprog2017-ps4.

## Setup R project + Git - 15 minutes

6. Open Rstudio
7. Create a new project (New Project > Existing Directory > Browse to the folder rprog2017-ps4 and select it > Click Open)

Your Rstudio will now change the Files and show you the Files inside the rprog2017-ps4. Notice that you have a new file here : rprog2017-ps4.Rproj This is the Rstudio project file, it helps you manage Git and the scripts easier.

8. Create a new R markdown file (.Rmd) and call it trends.Rmd; Knit it into an HTML file. Now you have trends.html among your Files.
9. In Rstudio, there is a Git pane now next to Environment and History. Click on it. Select the file trends.Rmd, and click on commit. A new windows open, on the left, under commit message, write “This is a message that I write to remember what I changed here : I created trends.html”. Then click Commit (sometimes it doesn’t work the first time, click a second time). You should see on the very top of the window a small message that says : this branch is ahead of master by 1 commit.
10. Click on Push. You just published trends.html on your github repo. Check that it is there.

## Making your own report with Google Trends - 45 mins

11. In Files, there is a file called gtends-script.R; This is a piece of code that plots the price of Bitcoin (normalized to 100 max) with the Google Trend data of Bitcoin, so the number of searches for bitcoin

(also normalized to 100 max). The script is ugly and not commented. Open the file, run it line by line and comment it to explain what it does.

12. Choose a topic of your interest. e.g. Beyonce, Vegetarian, or Macron.
13. Use your trends.rmd file to write a report about your topic of interest : you should include 1 paragraph to explain, and 1 plot. You should use Google trends data. You can copy commands from gtrends-script.R and use them inside code chunks to produce your report.
14. Knit your report into trends.html
15. Commit the change you made to trends.html to your github report, and push the change.