Short Git startup tutorials in pdf format made with markdown

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24-1-2022

```
knitr::opts_chunk$set(echo = TRUE)
```

These notes are just to practice the use of version control, RStudio and markdown They stem from the Coursera course: 'The Data Scientist's Toolbox' and the Help pages on the Github website.

Configure Git for use with Github

type in the command prompt

git config –global user.name <"username">
git config –global user.email (same email address you signed up for GitHub with)

confirm your changes by typing

git config –list.

If you notice any problems or want to change these values, just retype the original config commands from earlier with your desired changes exit the command line by typing

exit (and hit enter)

How to link RStudio with Github

In RStudio go to tools - global options - git/SVN,

check if Git.exe path is correct Now, to link RStudio to GitHub,

click "Create RSA Key" and when there is complete, click "Close". Following this, in the first window again, click "View public key" and copy the string of numbers and letters. Close this window.

You have now created a key that is specific to you which we will provide to GitHub so that it knows who you are when you commit a change from within RStudio.

Go to your account settings in Github go to SSH and GPG keys and click "New SSH key". Paste the public key you have copied from RStudio into the key box and give it a title related to RStudio. Confirm the addition of the key with your GitHub password

GitHub and RStudio are now linked.

How to link a repository to Github

create/fork/clone a repository in Github

New repo: Name your new repository and give it a short description Click "Create Repository", copy the URL for your new repository

In RStudio, select New Project, select Version Control, select Git as your version control software Paste in the repository URL from before, select the location where you would like the project stored When done, click on “Create Project”

Doing so will initialize a new project linked to the GitHub repository and open a new session of RStudio

Create a new R script Save the file

in the Git tab of the environment quadrant, you can see the new file

Click the checkbox under Staged to stage your file Click on it

A new window should open that lists all of the changed files from earlier and below that shows the differences in the stage files from previous versions In the upper quadrant, in the message box, write a commit message. Click Commit and close the window

push your changes to the GitHub repository, go to your GitHub repository and see that the commit has been recorded

How to get version control for an existing project

Open Git Bash or Terminal and navigate to the directory containing your project files. Move around directories by

type CD for change directory, followed by the path of the directory.

When the command prompt in the line before $ says the correct location of your project, you are in the correct location.

type git init git add. (with .!) (/ git add for partial adding)

This Initializes this directory as a Git repository and Stages / adds all of the files in the directory to your local repository. To have a look at what is staged:

git status

Commit these changes to the Git repository using

git commit -m “Initial Commit”

At this point, we have an R project linked to Git version control. To link it to Github,

go to github.com

Create a new repository with the same name note: do not initialize the readme, gitignore or license.

Once you’ve created this repository, there is an option to push an existing repository from the command line with instructions below containing code on how to do so.

In Git Bash or Terminal, copy and paste these lines of code After doing so, refresh your GitHub page

you should now have access to the Git tab in the upper right quadrant

any added (saved) changes you can now push to github:

select (stage) your new/changed file under the Git tab (upper right) click commit , add comment, commit finally, Push