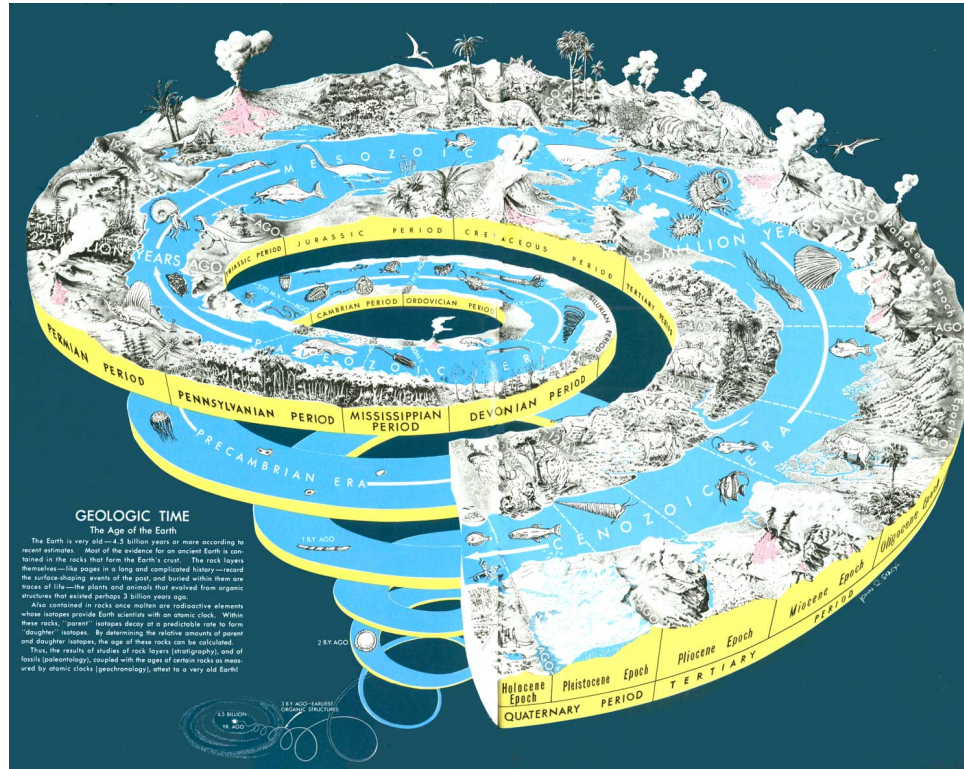


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# Reproducible science workshop

*Jingxin Liu* (<https://www.researchgate.net/profile/Jing-Xin-Liu-2>)

### Play with embedding figures from my own computer



### Geological history figure

### Play with embedding figures from my own computer



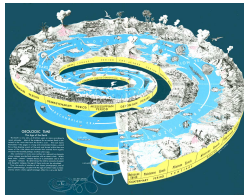
Jingxin

*Play with embedding figures from internet and change the size of the figure*



Jingxin

*Play with embedding figures by knitr from my own computer*



Geological history figure

The following is the tentative outline of a four day workshop that will be held in Xishuangbanna Tropical Botanical Garden (XTBG (<http://english.xtbg.cas.cn/>)) from October **19-22nd 2021**. The purpose of this workshop is to get participants familiar with the concept of reproducible science that is surprisingly not commonly taught but which is becoming a requirement for better collaboration (not only with others but with oneself through time) and for credible science. At the end of this workshop, attendees should be familiar with tools use to achieve reproducible science, will be more confident with themselves, and be inclined to adopt these tools which will ease their collaboration with themselves as well as others. This course consists of four main parts which aim to putting everything from data to final report including r code and some interpretations and also exercises as step by step work me through method. This course will be mainly taught by Dossa G.G.O. click here to email me (<mailto:%20dossa@xtbg.org.cn>). Dossa has been teaching part of this workshop as a short module at the yearly postgraduate Advanced Fieldcourse in Ecology and Conservation ??? XTBG AFEC-X (<https://www.pfs-tropasia.org/>) for the past two years.

### ***Who should attend this course?***

Anyone who carries out research either as student, or research staff and seeks guidance to manage data efficiently, to improve peers credibility in their research output, and is keen to make science solid and credible. Consider thinking about the following questions:

- Have you ever worked collaboratively with others, and received multiple comments that you needed to deal with?
- Have you been ever asked by your collaborators/supervisor to go back to previous version of your manuscripts/analysis/ results?

- Have you ever thought that you finalized an analysis but to realize a mistake was in the data file?
- Have you ever spent endless time to explain your past / current projects to your collaborators (including yourself) but realize you even do not remember what you did at some point or why you did certain things?
- Have you ever copied a table from R/SPSS/Minitab/SAS to excel, and subsequently from Excel to your word processing document? And most annoyingly, you need to repeats these steps whenever anything has changed in the analysis or code.

If you answer **Yes** to any of the above questions then, this workshop is designed for you. Above all, there are five selfish reasons for why you would love to take this workshop click here ***Five selfish reasons*** (<https://genomebiology.biomedcentral.com/articles/10.1186/s13059-015-0850-7>)

hand make a table a table with your name, sex where you fill in your name your along the name(s) of your supervisor and their sex.

my first table made in Rmarkdown

Supervisor name	sex	Name	Sex
Jin Chen	Male	Jingxin Liu	Male

my first table made in Rmarkdown

Name	Position	Sex
Jingxin Liu	Student	Male
Jin Chen	PI	Male

## play with git bash

set up git etc in Rstudio

then open git bash, then input the codes below

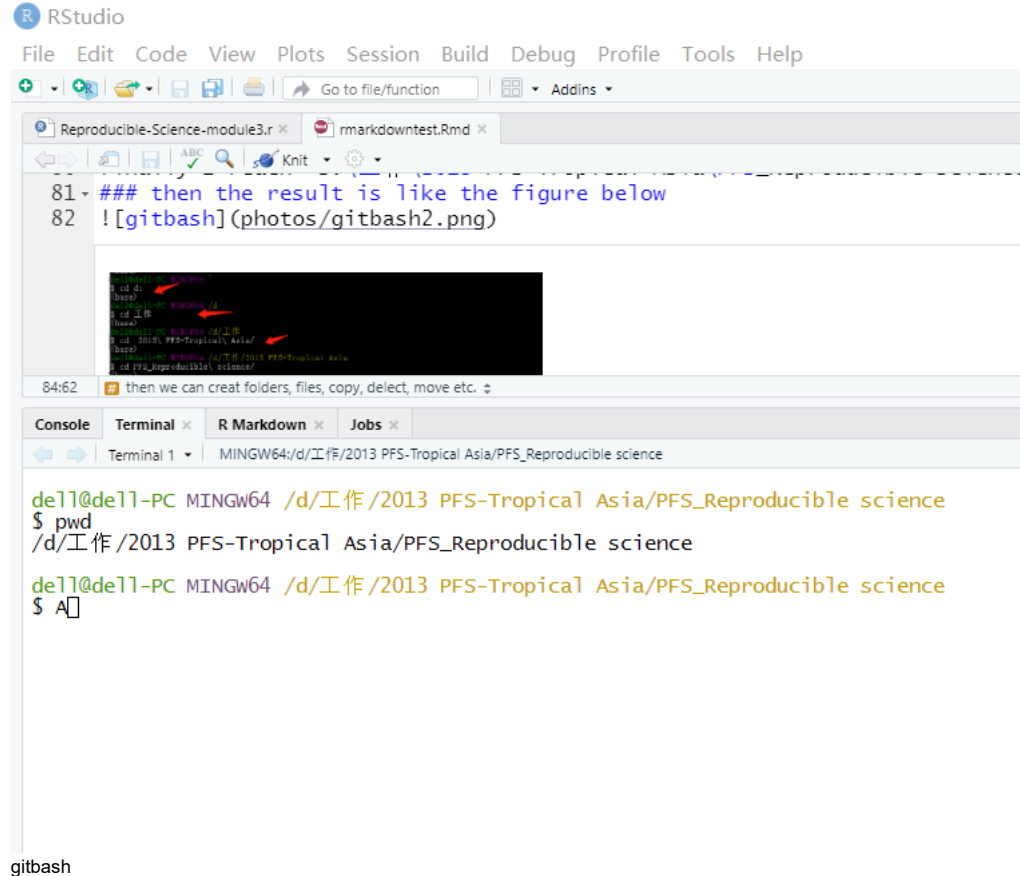
```
git config --global user.name "xtbgtraining"
git config --global user.email "liujingxin@msn.com (mailto:liujingxin@msn.com)"
git config --global --list
```

then the result is like the figure below

```
(base)
dell@dell-PC MINGW64 ~
$ git config --global user.name "xtbgtraining"
(base)
dell@dell-PC MINGW64 ~
$ git config --global user.email "liujingxin@msn.com"
(base)
dell@dell-PC MINGW64 ~
$ git config --global --list
user.name=xtbgtraining
user.email=liujingxin@msn.com
filter.lfs.clean=git-lfs clean -- %f
filter.lfs.smudge=git-lfs smudge -- %f
filter.lfs.process=git-lfs filter-process
filter.lfs.required=true
(base)
dell@dell-PC MINGW64 ~
$ pwd
/c/Users/dell
(base)
dell@dell-PC MINGW64 ~
$ ls
「开始」菜单@
3D Objects/
```

gitbash

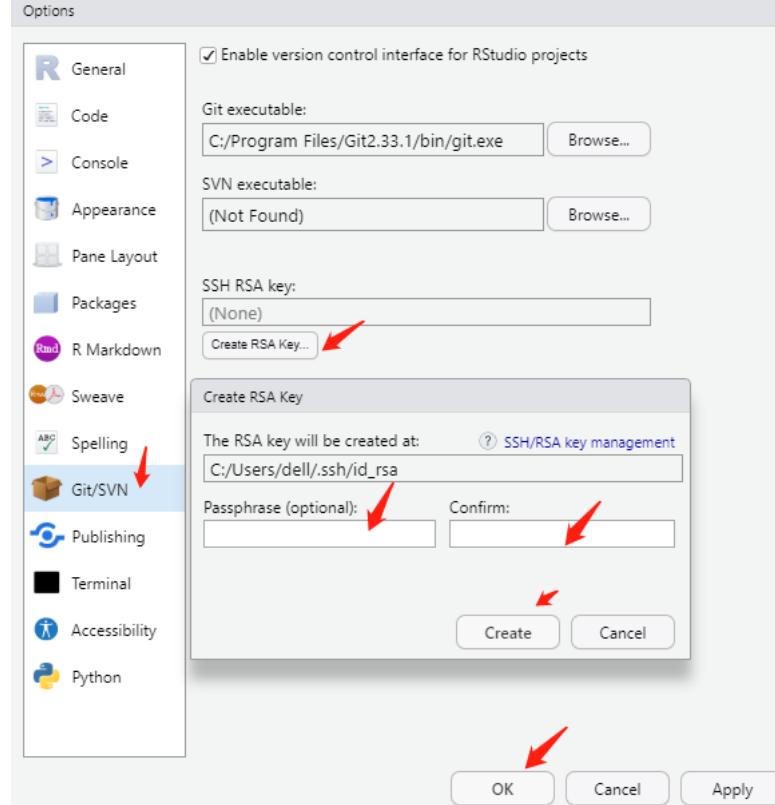
actually as we seted up in rstudio that git bash can be opened in rstudio, see the figure



gitbash

##How to creat ssh key, and use it to clone repositories from github account

step 1 rstudio-tools-global option

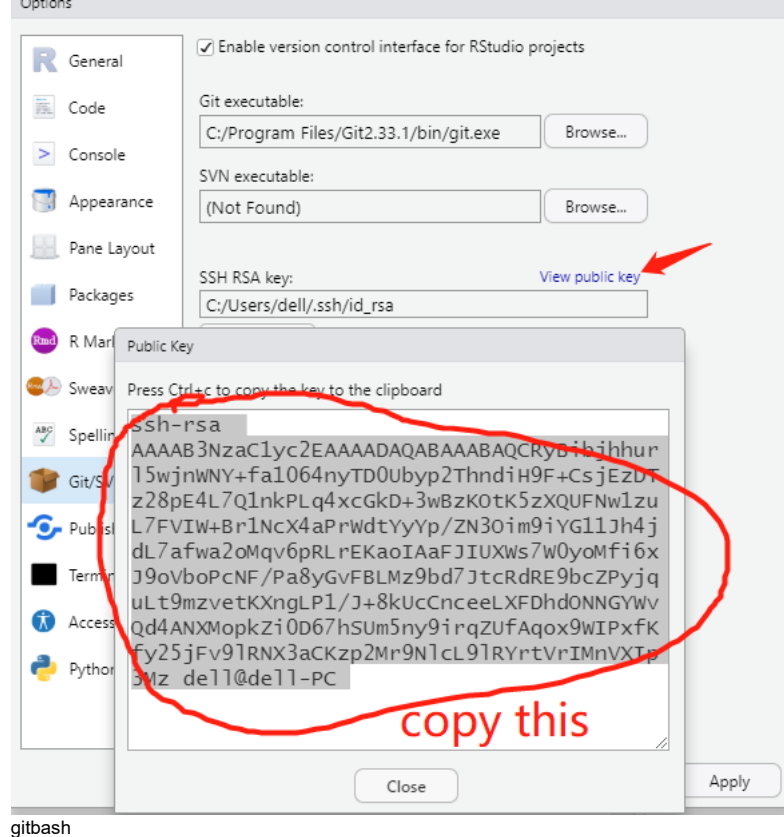


gitbash

step 2, copy the ssh key in rstudio

ssh-rsa

AAAAB3NzaC1yc2EAAAADAQABAAQCRyBibjhurl5wjnWNY+fa1064nyTD0Uby2ThndiH9F+CsjEzDTz28pE4L7Q1nkPLq4xcGkD+3wBzKotK5zXQUFNw1zuL7FVIW+Br1NcX4aPrWdtYyYp/ZN3Oim9iYG  
dell@dell-PC (mailto:dell@dell-PC)



gitbash

step 3 log into github and go to , there you will find a ssh key zone to creat ssh key  
past the copied ssh key there, this step links rstudio with your github account



xtbgtraining  
Your personal account

## Account settings

Profile

Account

Appearance

Account security

Billing & plans

Security log

Security & analysis

Sponsorship log

Emails

Notifications

Scheduled reminders

SSH and GPG keys



Signed in as  
**xtbgtraining**

Set status

Your profile

Your repositories

Your codespaces

Your organizations

Your projects

Your stars

Your gists

Upgrade

Feature preview

Help

Settings

Switch to another account

## SSH keys / Add new

Title

my\_Dell\_notebook

Key

```
ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQAwOa3wFMCX5c9A/GzRdRNDig6tDKI8XfcoOCzQX0HpLiGZrQR38
LRCfnsjQ3Mk+rIfXp2QXVuReJhiDlvNGI1V/aAqdulZxdKxUsO7CmonaUpX4YASYZ+LstS2WL86sHi98xe6R3Y7hOi5ReL
tNWaMXPMJWIMLIrmS2bdH5ZyvgZb4DT3A5tL0nkOD9o70G2KEv0miKQsvNP8b1t1rPR1b+CWcl6etF+EAiOlijGFyrF
m1GzkuloJfWnna+HKbxGqzdl3mWT7yJg5d9E/GvGsDr23HKmNdiDjOyCivknUCrgfnBh+ZB2CWf7et56U0yXzCApbcg
6oU1o0NeZ dell@dell-PC
```

SSH keys

Switch to another account

Go to your personal profile

New SSH key

## SSH keys

There are no SSH keys associated with your account.

Check out our guide to [generating SSH keys](#) or troubleshoot [common SSH problems](#).



paste the ssh key generated in rstudio here

Add SSH key


Switch to another account

Go to your personal profile

## SSH keys

New SSH key

This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.



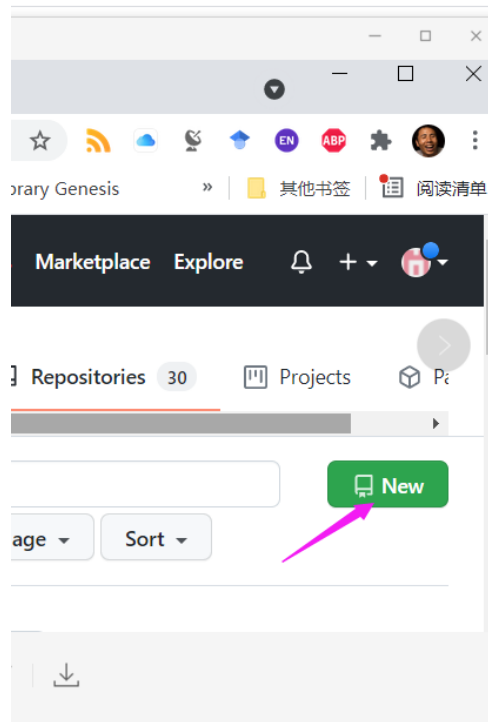
**my\_Dell\_notebook**  
SHA256:5qodmiIyiIOXYnK27MU7RjF+CwbTWkuLZq5eAdqgpoY  
Added on 21 Oct 2021  
Never used — Read/write

SSH

Delete

Check out our guide to [generating SSH keys](#) or troubleshoot [common SSH problems](#).

step 4 creat a new repository in your github account and get its ssh link



## Create a new repository

A repository contains all project files, including the revision history. Already have a repository? [Import a repository.](#)

Owner \* xtbgtraining / Repository name \* 2021\_Dossa

Great repository names are short and memorable. Need inspiration? [How about...](#)

Description (optional)

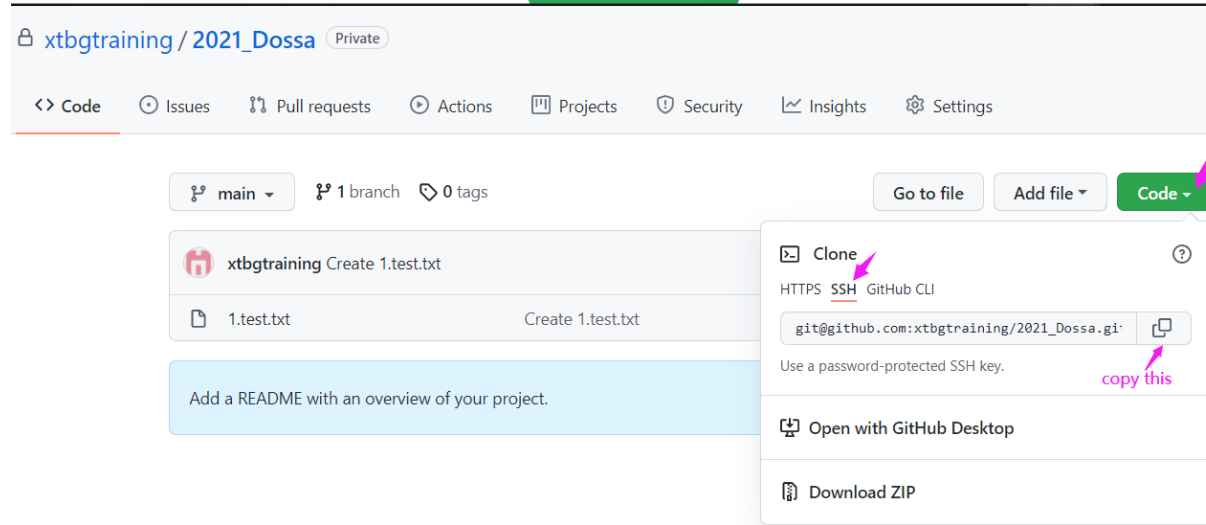
- ☐ Public  
Anyone on the internet can see this repository. You choose who can commit.
- ☒ Private  
You choose who can see and commit to this repository.

Initialize this repository with:

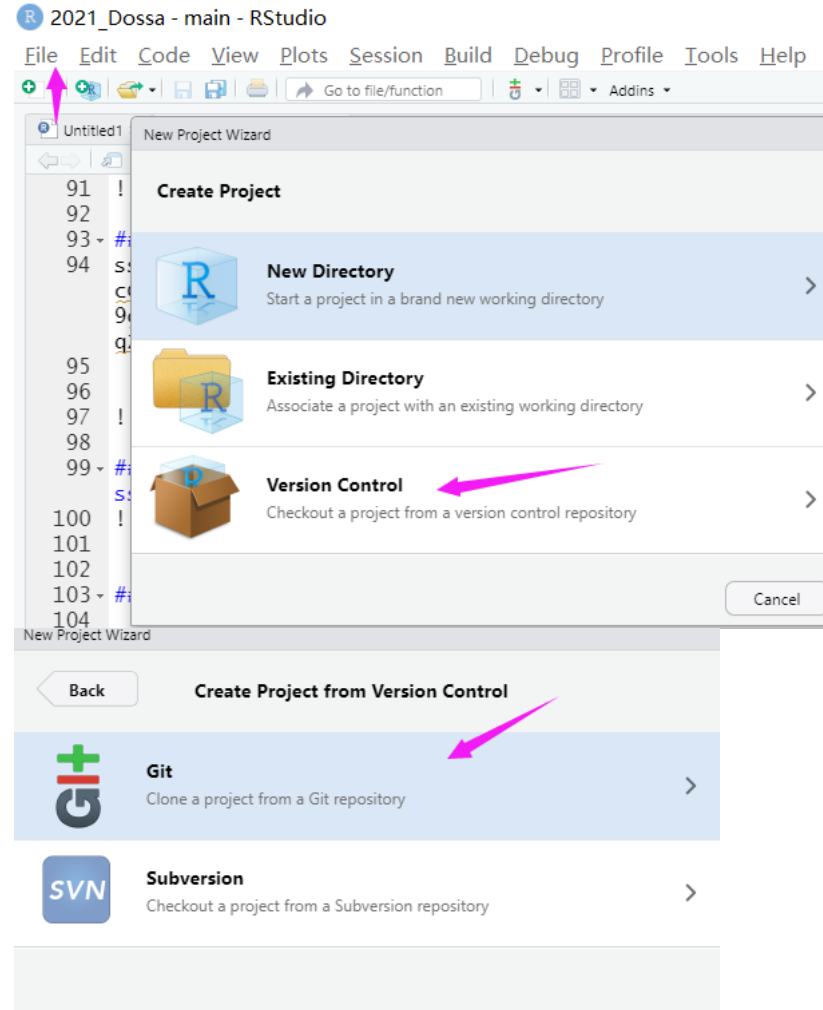
Skip this step if you're importing an existing repository.

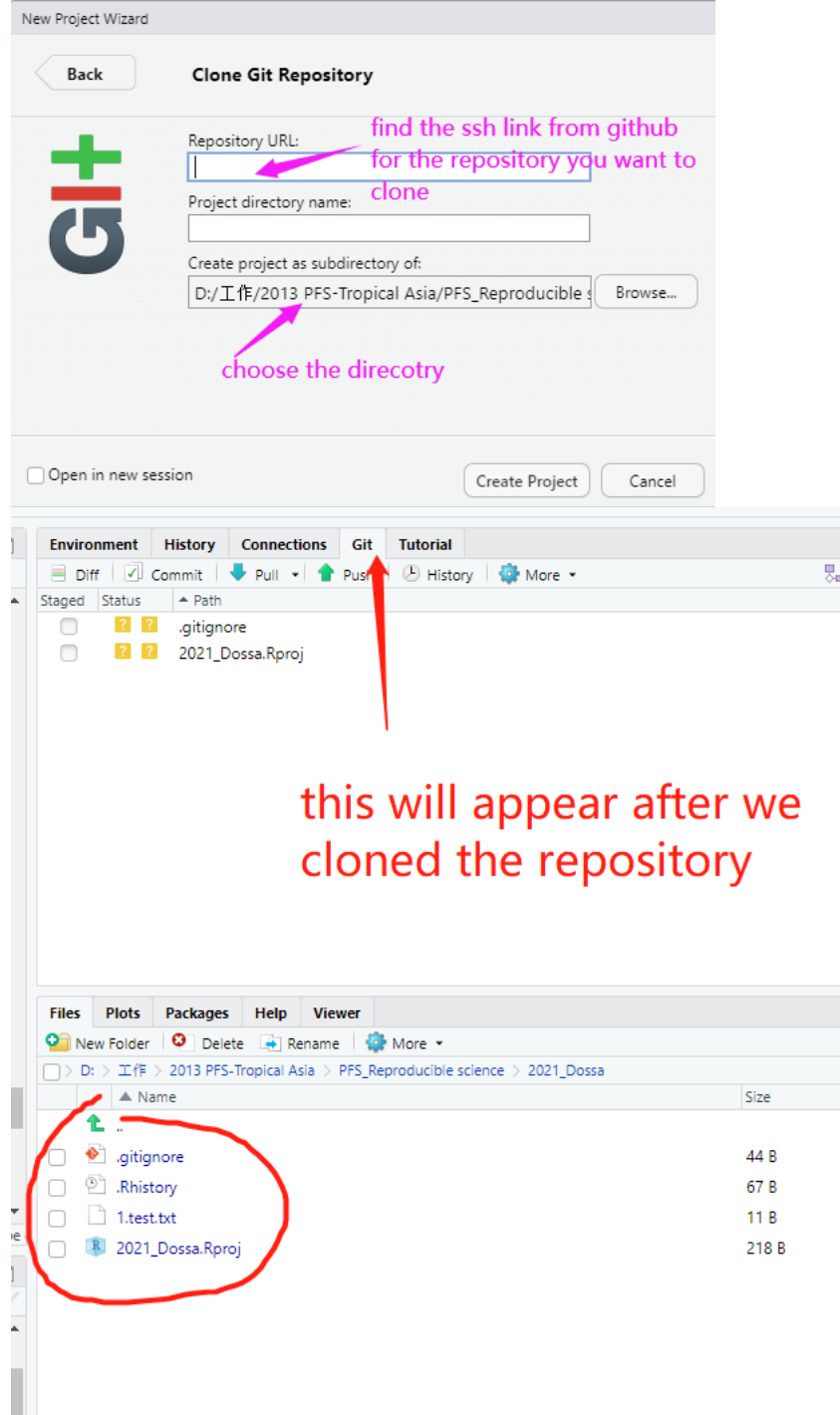
- ☐ Add a README file  
This is where you can write a long description for your project. [Learn more.](#)
- ☐ Add .gitignore  
Choose which files not to track from a list of templates. [Learn more.](#)
- ☐ Choose a license  
A license tells others what they can and can't do with your code. [Learn more.](#)

Create repository



step 5 in rstudio, creat new project choose “version control”, then “git”, then copy the ssh link from the repository you want to clone from your repository, then press creat project in rstudio, then the repository will be cloned to your computer





software for using github in China

<https://github.com/dotnetcore/FastGithub> (<https://github.com/dotnetcore/FastGithub>)