Git starting guide 1: Initial set up

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Git is an elegant solution for everyone who works on projects that involves coding. It gives access to many features that makes the coder life much easier. However, git is a complex tool and without the right setup and detailed instructions, the user can feel frustrated and discouraged by it. These series of articles aim to make the git experience as easy and as accessible as possible for everyone.

In this first article, I will give you a detailed tour on how to complete the initial set up of git on your computer.

This guide will go through in details the following:

1. **How to set up git on your computer?**
    1. **What is git?**
    2. **What is Sourcetree? What is GitHub? What is the difference?**
    3. **Sourcetree setup**
    4. **GitHub setup**
2. **How to create repositories(the right way)?**
    1. **What are repositories?**
    2. **Create your repositories**
        1. **Create the remote repository on Github**
        2. **Clone down the remote repository onto a local folder on your pc**

1. How to set up git on your computer?

a. What is git?

In short, git is a tool to help you code. It offers a couple key features that facilitate the coder's life:

- **File organization**: Creating repositories for your project and your codes. (A repository is like a folder in which you put files related to your project)
- **Version control**: Git helps you keep track of all changes and all versions of your code history, for example you can revert your code to an old working version with Git.
- **Easy collaboration**: Git lets you work collaboratively on the same code file. You can merge codes together in a clean way using git, instead of the old tedious routine of copying, pasting, and debugging your code.

b. What is Sourcetree? What is GitHub? What is the difference?

Sourcetree is Git GUI(Graphical user interface). It is an interface that enables git in a user-friendly way. Git is initially used from a command line tool, but you need to learn the language, it takes time and it's inconvenient to start with.

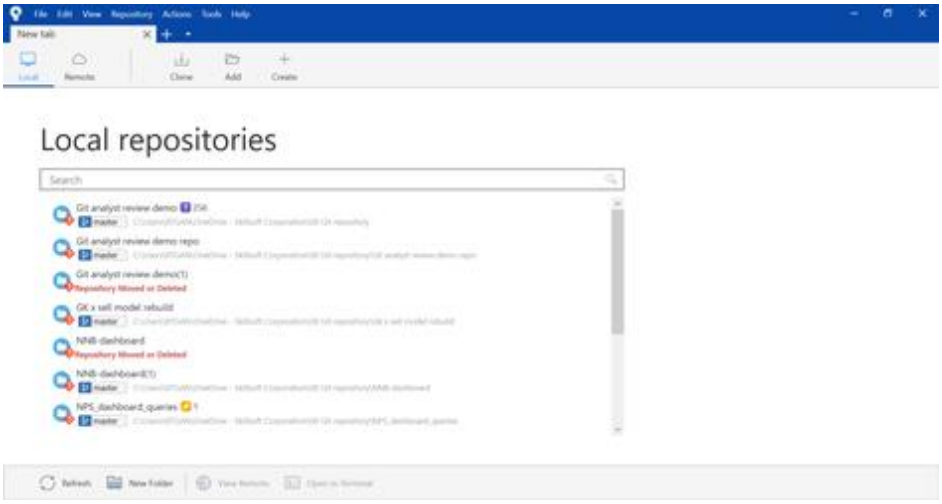
Github is a website/software that helps you organize your repositories in the cloud. It also adds a social feature to git: you can share your repositories in the cloud to your colleagues or friends. They can make modifications to code and ask for review.

Basically, Sourcetree is Git in a user-friendly interface, and Github is the social layer that is added to git.

Sourcetree and Github are not the only tools that exist for their respective purposes. There are many tools out there, but these two offer some great features that others don't have and are free. Since I am most familiar with these two, I will base this guide on screenshots taken from Sourcetree and Github's interface.

c. Sourcetree setup

Below is the link to download sourcetree. When the download is completed, open the .exe file to install it. Download here: https://www.sourcetreeapp.com/



If a message to enter name and password, enter your credentials of your Github enterprise account.

d. Github setup

Ask Chandu or the DevOps slack channel to setup your Github Enterprise account. The name is usually the first and last letter of your first name, followed by your last name. Ex: Robert Gan → RTGAN

The password is the Github Enterprise password, which is different from your @skillsoft.com account password.

2. How to create repositories (the right way)?

a. What are repositories?

Repositories are basically folders for your project in which you put all your files (code and non code).

In our case, once a repository is created, there will be a "local repository" and a "remote repository":

- "Local repository": It will appear as a folder on your local computer. This folder is linked to the "remote repository".
- "Remote repository": The remote repository is basically a copy of your local repository, but it is "remote" in the cloud. It will appear on your Github page, and you can manage them in your github page.

b. Create repositories

There are multiple ways to create repositories. The following is the way that I found the most consistent. It consists of 3 tasks:

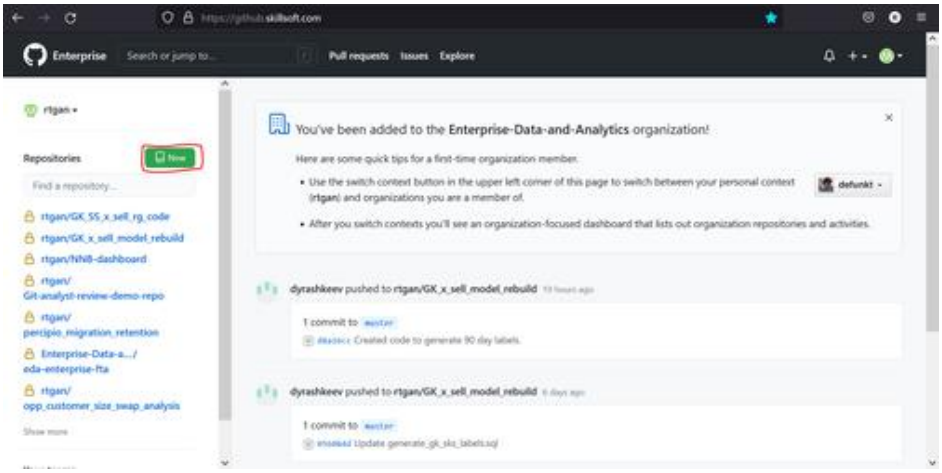
i. Create the remote repository on Github

ii. Clone down the remote repository onto a local folder on your pc.

iii. Work on your local repository.

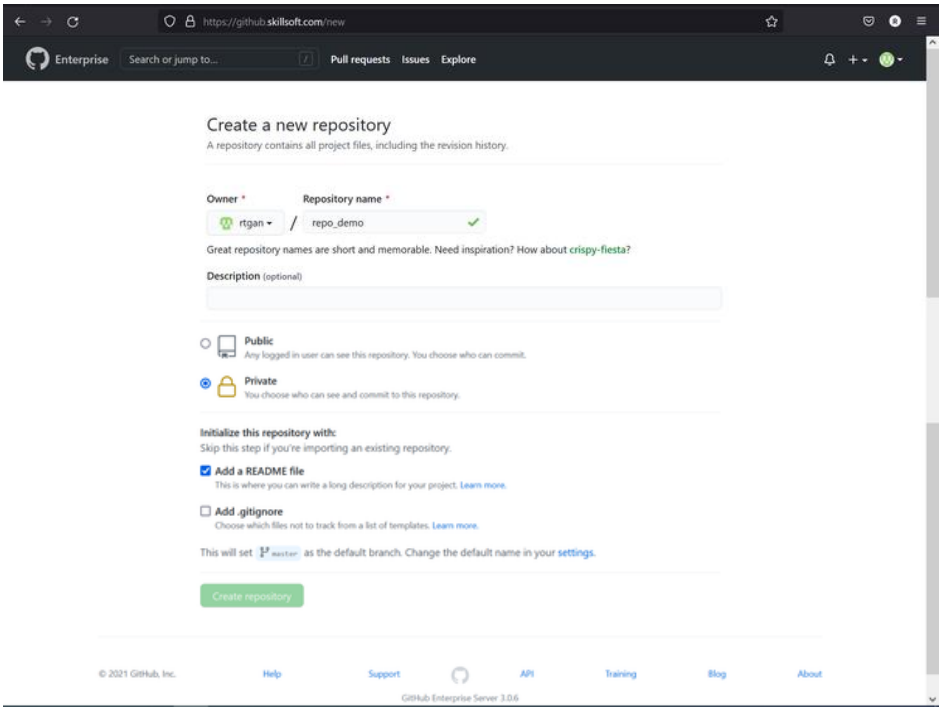
i. Create the remote repository on Github

- Go to the home page of skillsoft Github enterprise, If you have previously created repositories, you will see your repositories on the left panel. Click on the green icon "New" to create a new repository.

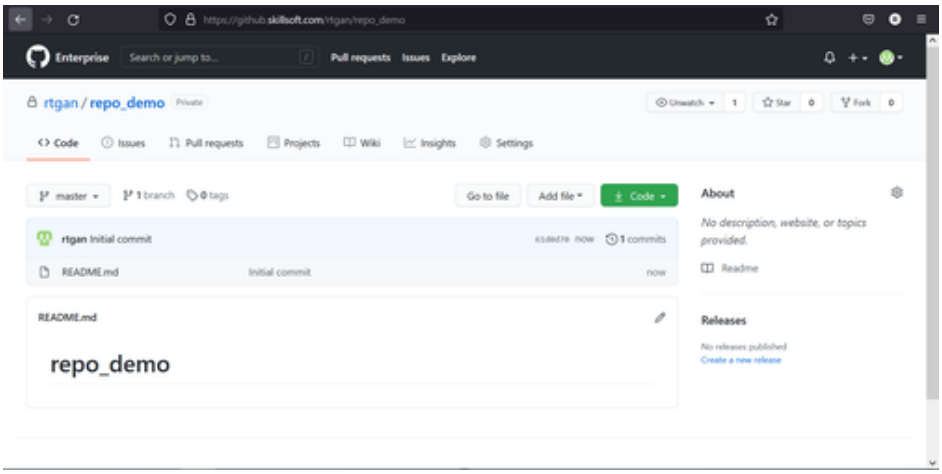


You will get to this page:

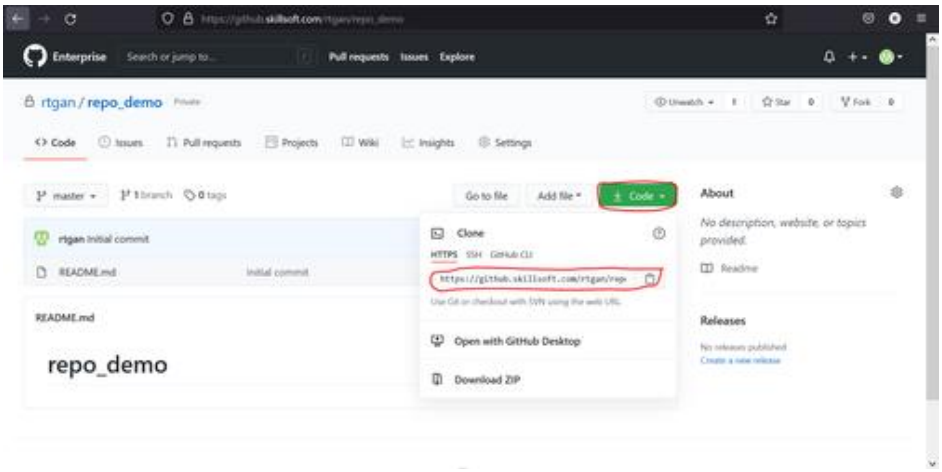
- You can see that you are the owner of this new repository that you are about to create
- You can give this repository a name that makes sense according to your project. In my case, since this is a repository for demo purpose, I will name it: "repo_demo"
- You can write something in the description, but this is optional, I usually don't write anything, we have other options in Github to describe what this repository is about.
- Keep it private for the moment.
- Check "Add a README file, this will add a "readme" file in the folder. You can edit this file to explain the purpose of the repository.
- Click on the green button "Create Repository" to create your new repository.



Congratulations! You created your new “remote“ repository on Github, and you should land on this following page that shows the repository that you just created:

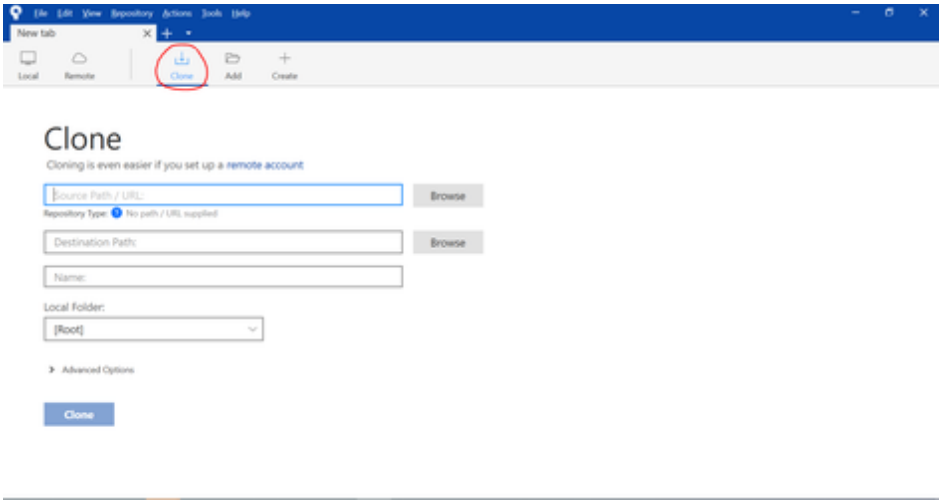


ii. Clone down the remote repository onto a local folder on your pc

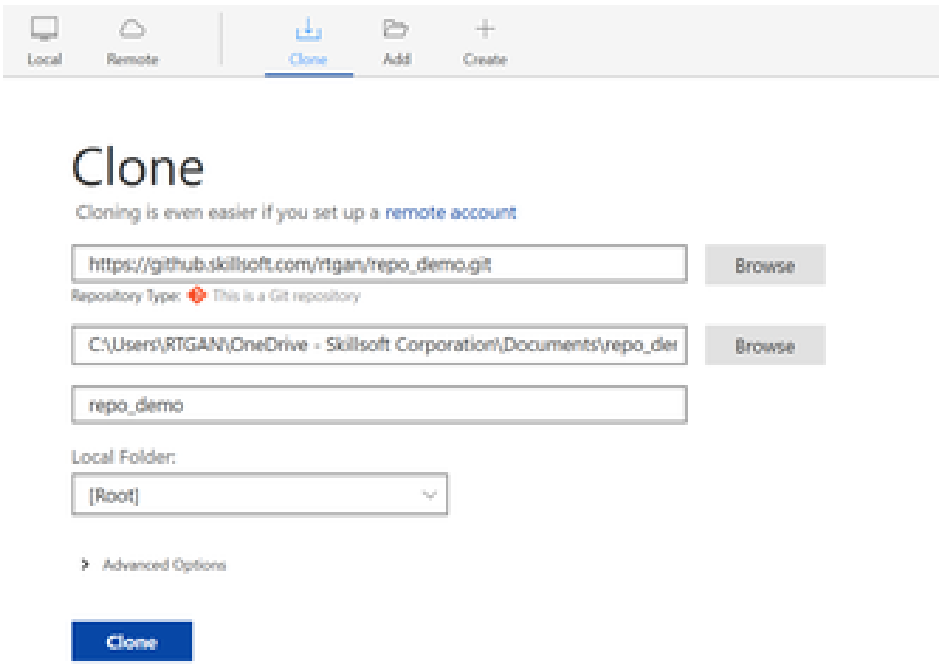


Once your remote repository created, you want to create a copy(or “clone” in the git language) of it to your local computer.

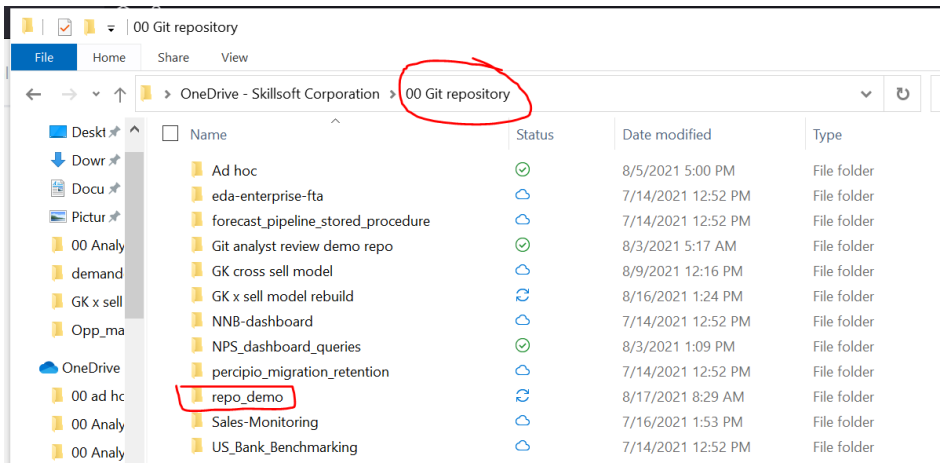
- Click on the green Code button
- Copy the URL shown in the box, or click on clipboard to copy the URL.
- Open Sourcetree and click on “Clone“ in the top horizontal panel.



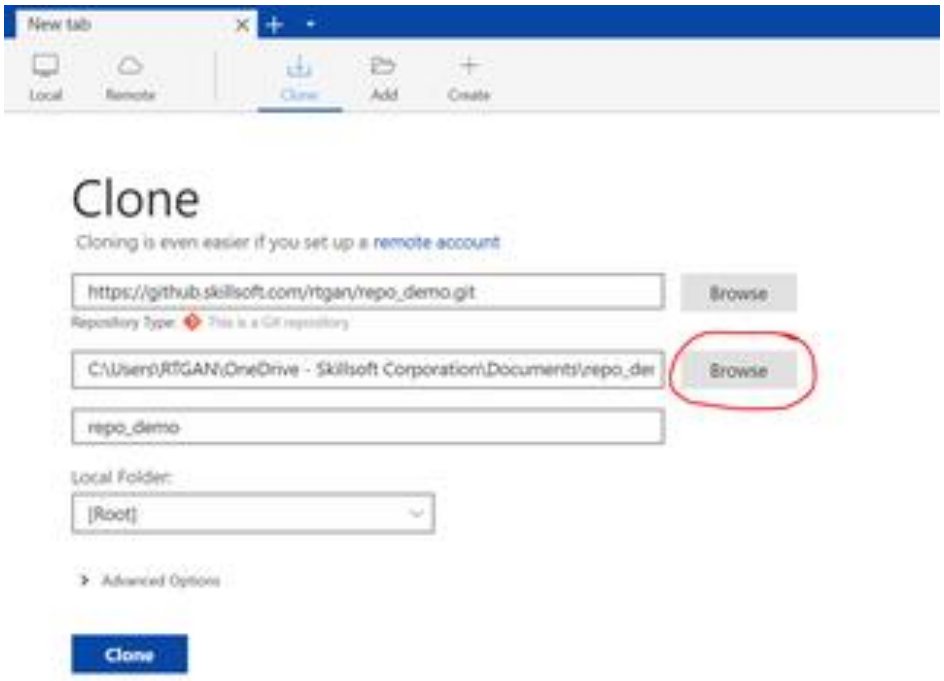
- Paste the copied URL in the first box that says “Source Path / URL:“. Once pasted, move and click on the next the destination path box. Normally, it will auto-generate the destination path.

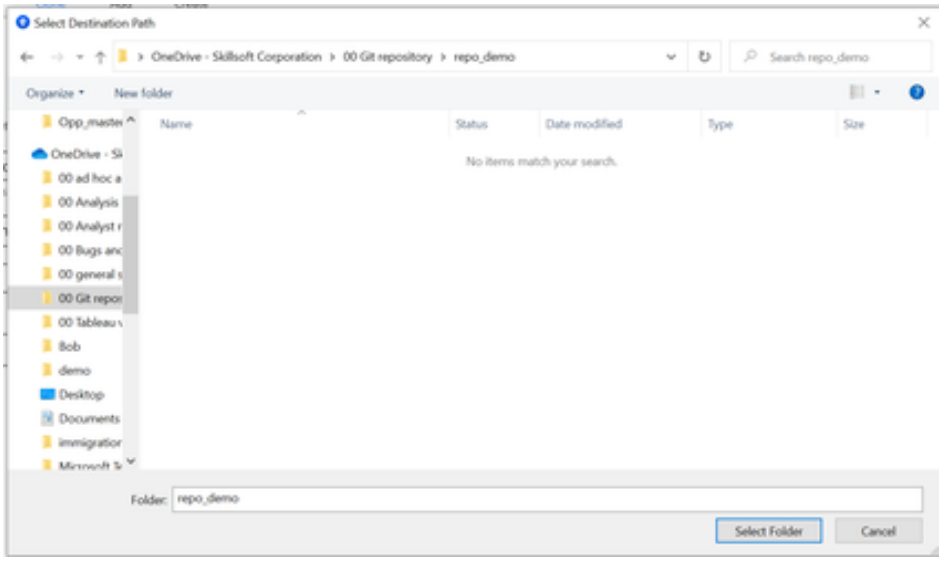


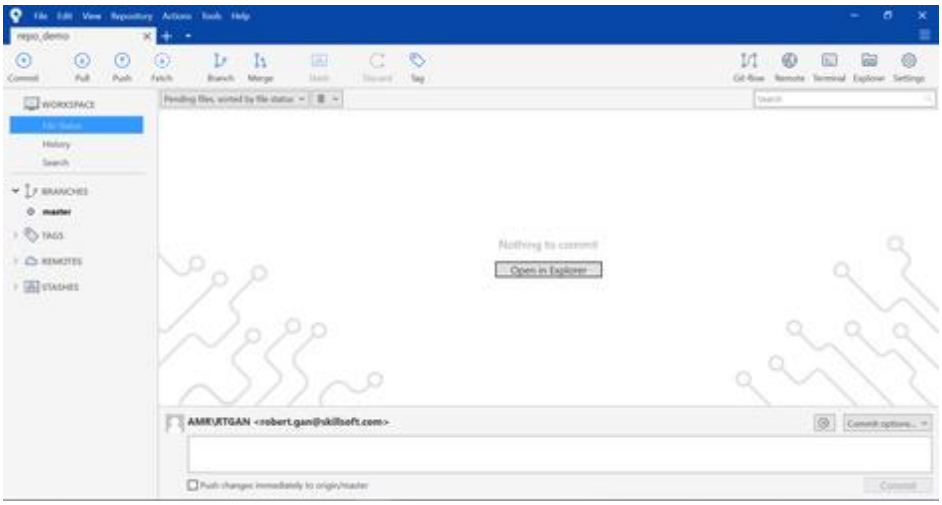
- You can accept the auto-generated path, or you can choose your own path. I usually do not choose the auto-generated path because I want to manage my repositories in my own way. Following is my way of managing my local repositories, you can try to do it the same way.
    - I created a “Git repository“ folder in my OneDrive:
    - Then, I would create an empty folder that has the same name as the remote repository that was created:



    - Go back to Sourcetree, and click on the second browse button to choose the destination path, and choose the folder your created above:


New tab
Local
Remote
Clone
Add
Create
Clone
Cloning is even easier if you set up a remote account
https://github.skillsoft.com/rtgan/repo_demo.git
Browse
Repository Type:
C:\Users\RTGAN\OneDrive - Skillsoft Corporation\Documents\repo_der
Browse
repo_demo
Local Folder:
[Root]
Advanced Options
Clone


Select Destination Path
OneDrive - Skillsoft Corporation
00 Git repository
repo_demo
Search repo_demo
Organize
New folder
Name
Status
Date modified
Type
Size
No items match your search.
Desktop
Documents
Folder:
repo_demo
Select Folder
Cancel



- Now you successfully cloned your remote repo to your local computer, and the folder you created previously (in my case “repo_demo“ folder) is the local repository. Congratulations!