Git Instructions

2018

Contents

1 Fresh start

If you didn't do any Github related stuff before this point I would recommend you following the steps described in this section. Also, if you would like to do a fresh start even if you already used Github to send homeworks you can follow this but, of course, there would be some steps that you already did and won't require you to do them again (**you can delete the two folders related to our Github repositories you have on your PC at this point BUT save any work you have done before**).

1.1 Install git and TortoiseGit

Follow this YouTube video in order to install the required tools.

1.2 Github account

Go to Github website and create an account there.

1.3 Main repository

Our main repository from where you will create a **fork** is located at
https://github.com/OOPCLASS/2018-30224

1.4 Fork repository

Go to the URL of our main repository as mentioned in subsection 1.3. As show in figure 1 on that URL you should see the name of our organization *OOPCLASS* on top left corner of the page. Click on **Fork** button from the top right corner of the page as displayed in figure 1.

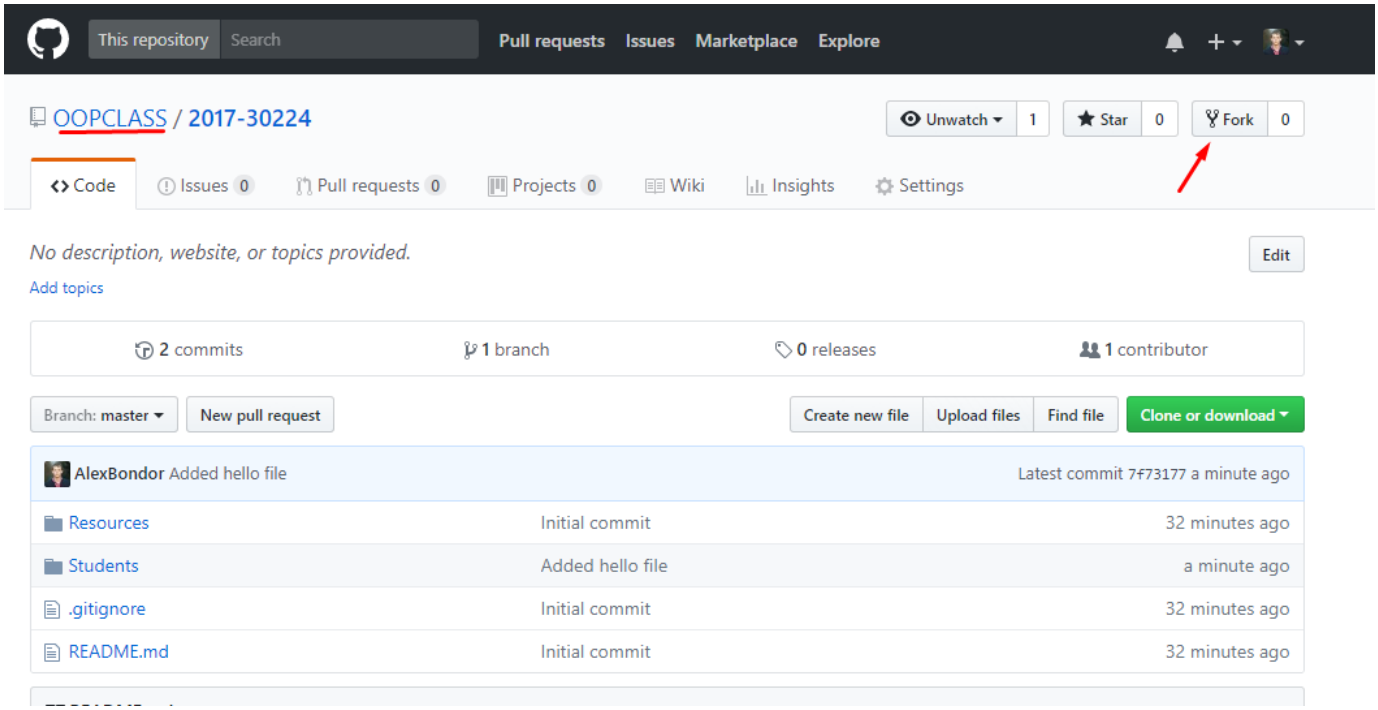

Figure 1: Forking main repository

1.5 Personal repository

Once you have completed the step described in subsection 1.4 you should be redirected to the page of your personal repository. This is a copy of the main repository and you will be working with this from now on. Figure 2 displays exactly the changes on the page that you should look after. Note that instead of the name of our organization, your Github username will be displayed in the top left corner of the page (in my case, *AlexBondor*). At this point you can be sure you have successfully forked the main repository.

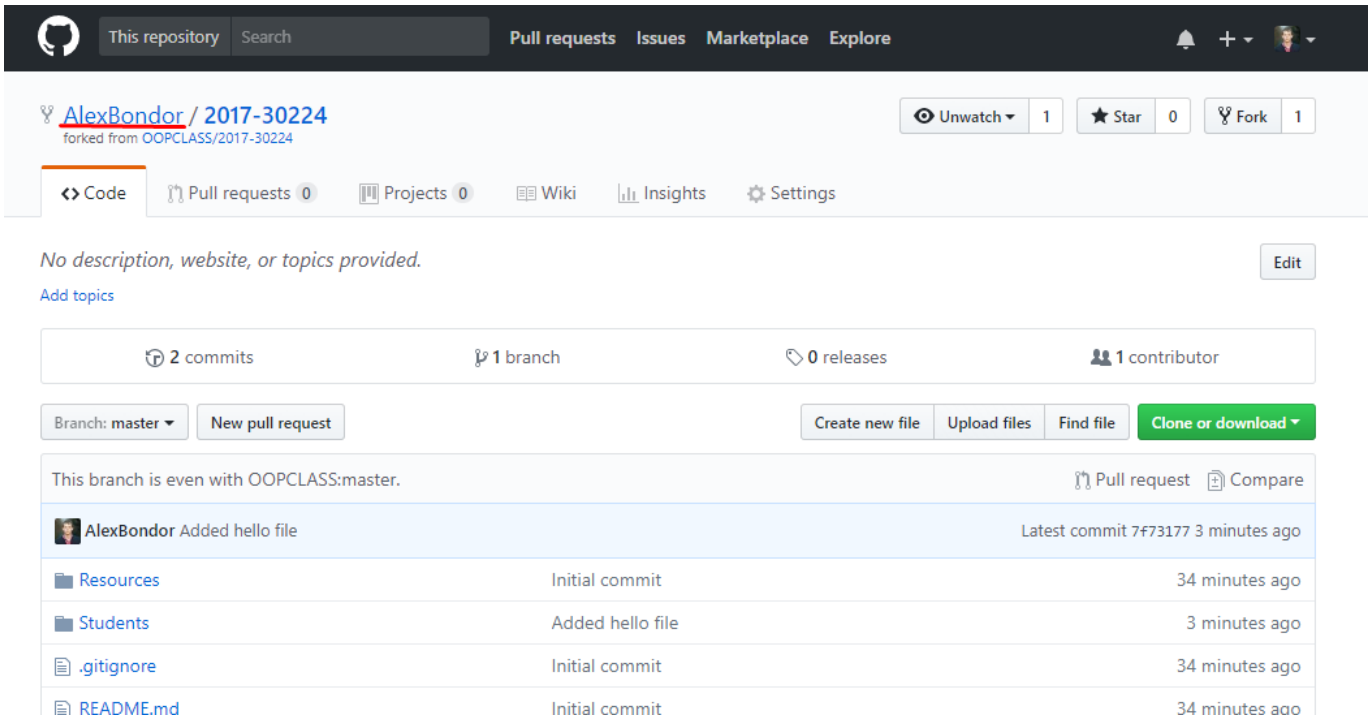

Figure 2: Personal repository

1.6 Clone personal repository

In this next step you will create a clone of your personal repository on your own PC. From the page shown in figure 2 from subsection 1.5 click the green button which says **Clone or download**. A small box will pop-up as show in figure 3. Please make sure that at this point the text underlined in figure 3 is exactly your Github username! Copy the URL as shown in the mentioned figure.

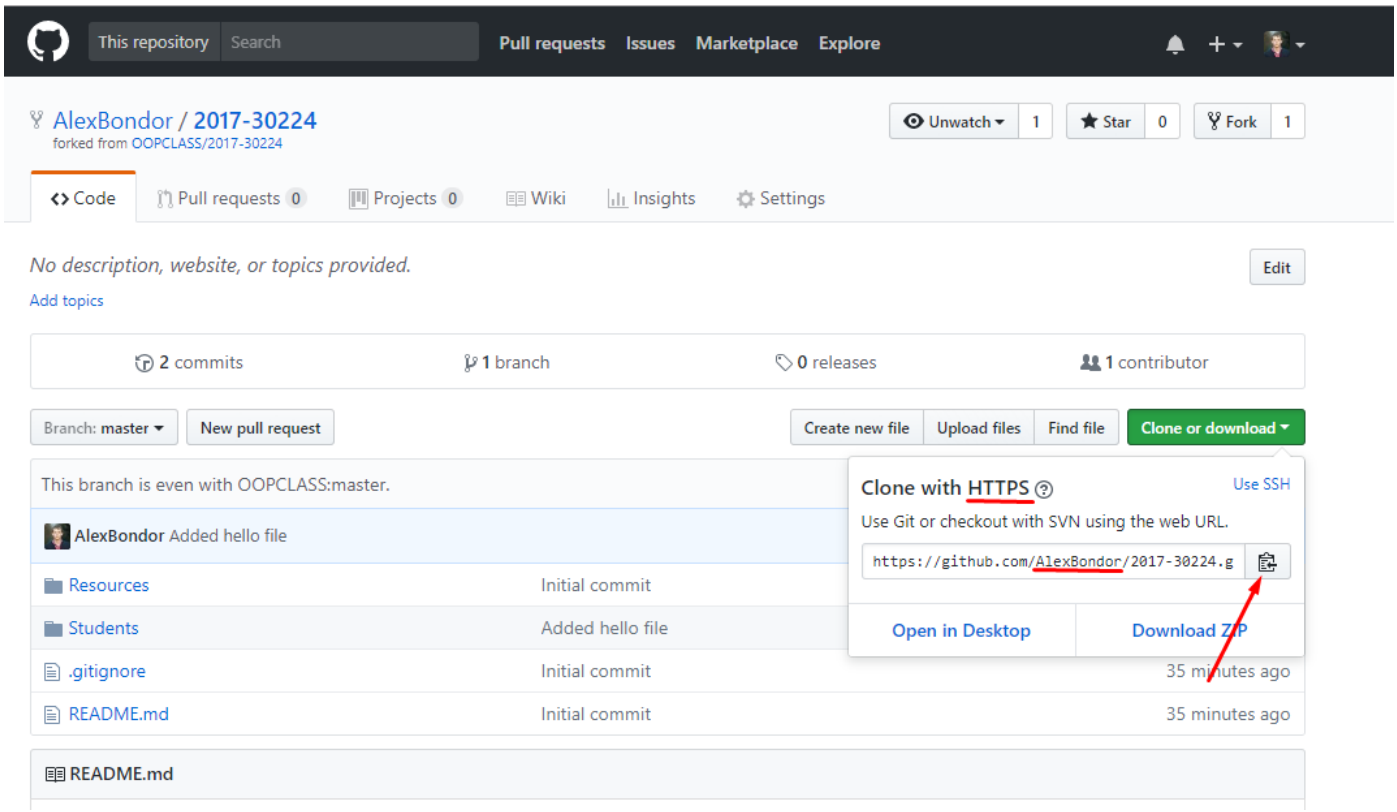

Figure 3: Clone repository

On your PC find a place where you would like to save the personal repository. The folder **2018-30224** will be created at this location once you follow the next step. Navigate to the folder you have just created or selected as a destination to save your personal repository. Right-click inside this folder and, as shown in figure 4 click on **Git Clone..**.

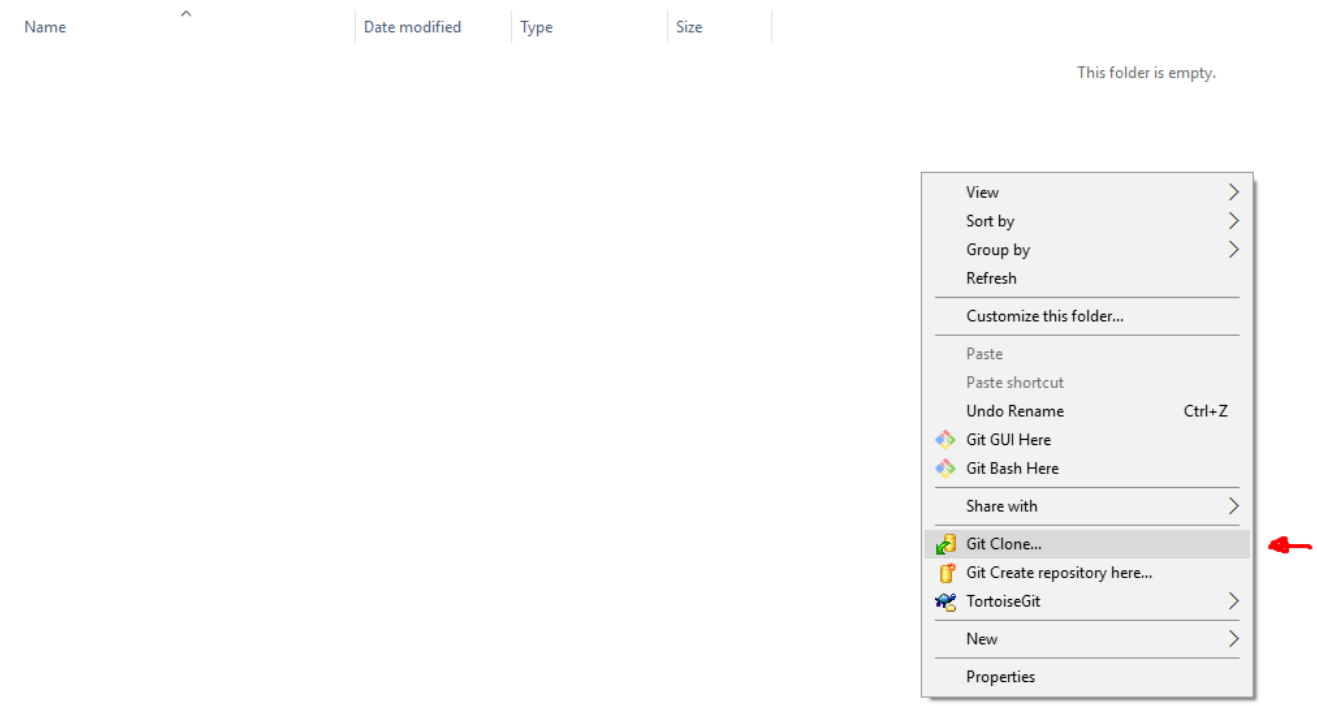

Figure 4: Git Clone..

Once you click **Git Clone..** the message box displayed in figure 5 will pop-up. Paste the URL you have copied at previous steps in the URL section and maybe check the destination folder in Directory section. Hit **OK**.

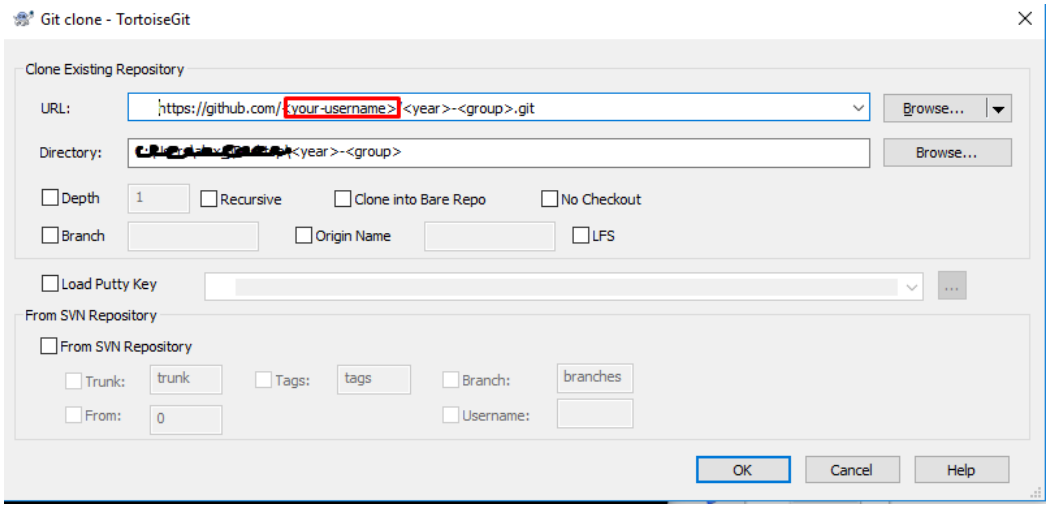

Figure 5: Git Clone.. message box

Once you have completed these steps you should see that a copy of your personal repository has been created. This is going to be the **ONLY** folder in which you will have to work and receive assignments. The folder I am talking about is the one displayed in figure 6. However, the name of the folder would be **2018-30224** in your case.

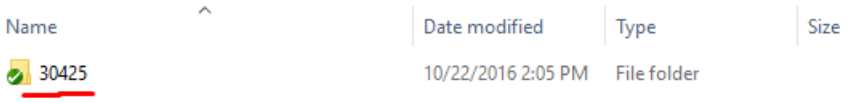

Figure 6: PC version of your personal repository

At this point you have successfully completed the initial steps for being able to work with Github for the assignments you will receive at the OOP labs. Please go to the next sections in order to configure and understand how to work with what you have just created.

2 Personal repository setup

2.1 Setup remotes

In this step we will do the necessary settings so that you will be able to get new changes from the main repository (origin) and put your changes (e.g. assignments) to your own repository (personal). On your PC navigate inside the repository folder (taking into account you have performed the previous step, you must only have the clone of your personal repository on your PC). As shown in figure 7 right-click inside this folder and go to **TortoiseGit** > **Settings**. (You might want to check your folder's contents by comparing them to the ones you see in figure 7).

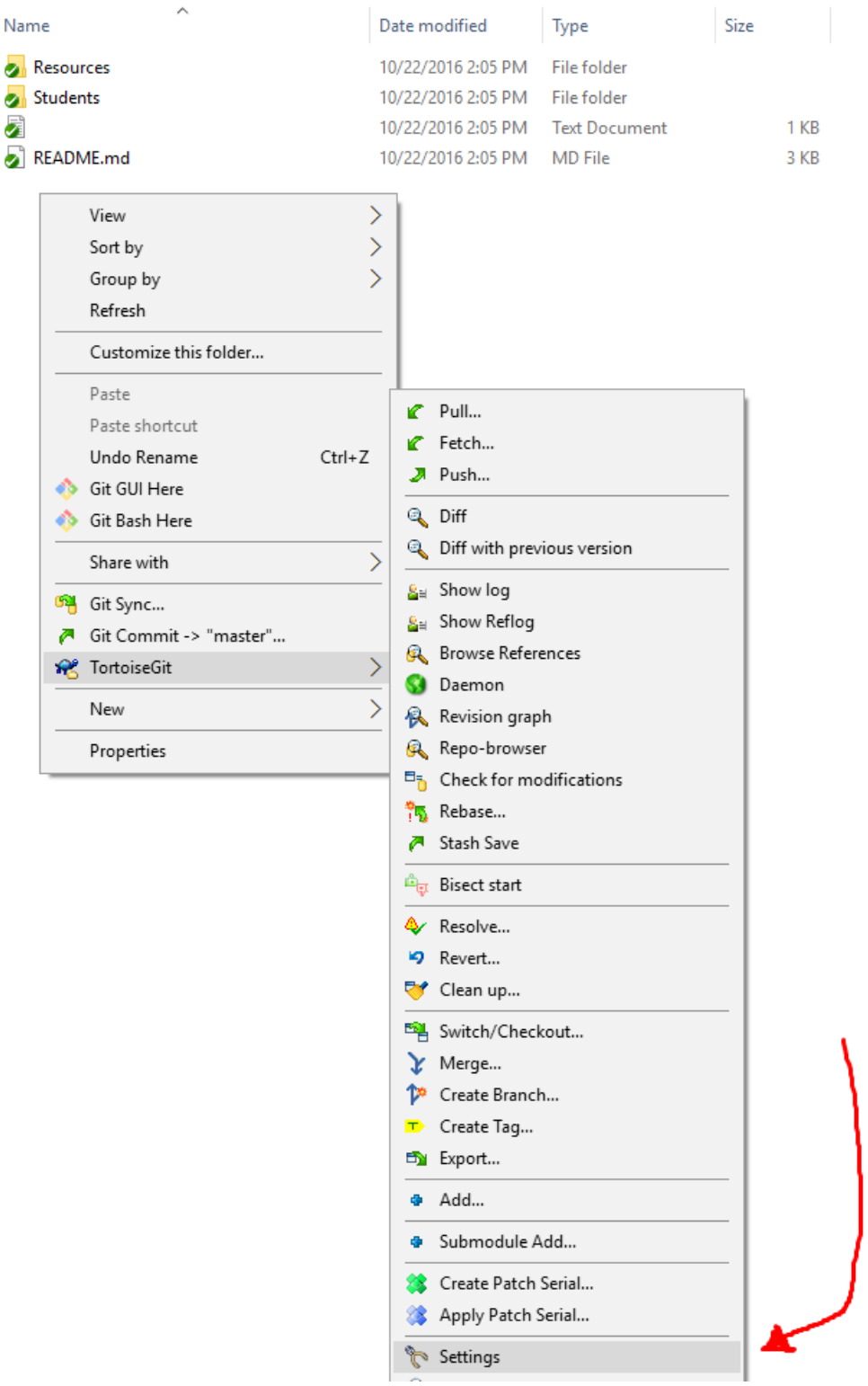

Figure 7: TortoiseGit > Settings

In the windows that pops-up click on **Remote** from **Git** as displayed in figure 8. Under *Remote:* you should only see **origin**. If you check the URL written there, it will contain your Github account name (in my case, *AlexBondor*).

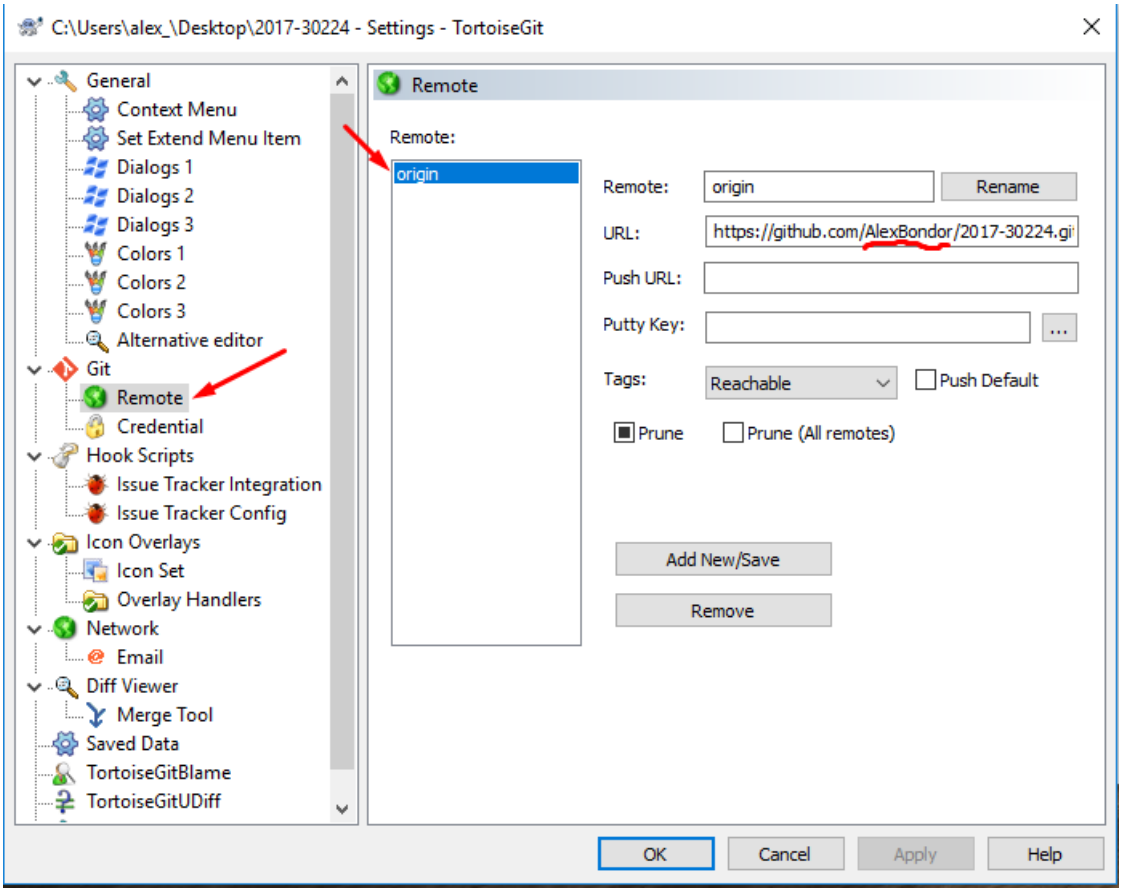

Figure 8: Settings

Rename this setting by changing its name from **origin** to **personal** as shown in figure 9. Then click the button **Add New/Save**, click **Yes**, click **Yes**, click **OK** and **Close**.

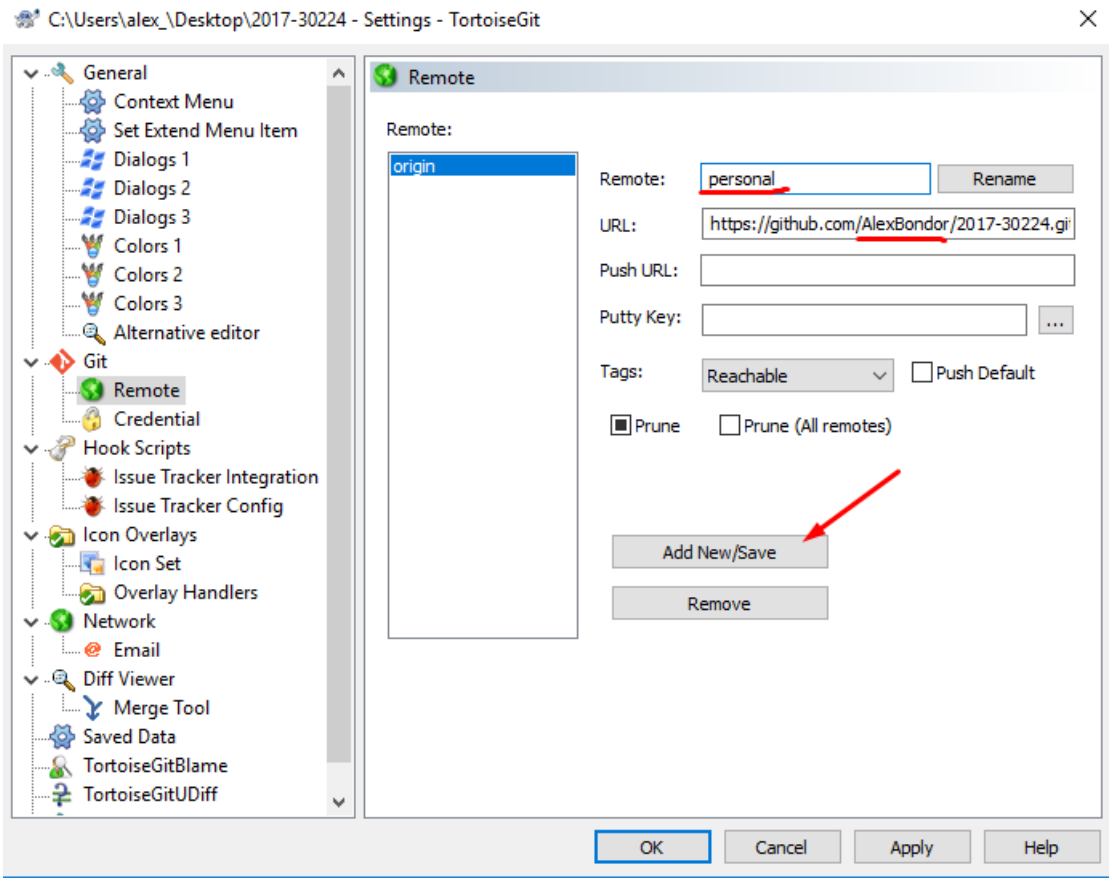

Figure 9: Create new remote

Once the new setting was created you should see both of them under the **Remote:** text. Click on **origin** again but now make sure you replace your Github account name with **OOPCLASS** in the URL field as shown in figure 10. Again, click **Add New/Save** and then **Overwrite**. Close this window by clicking **OK** next.

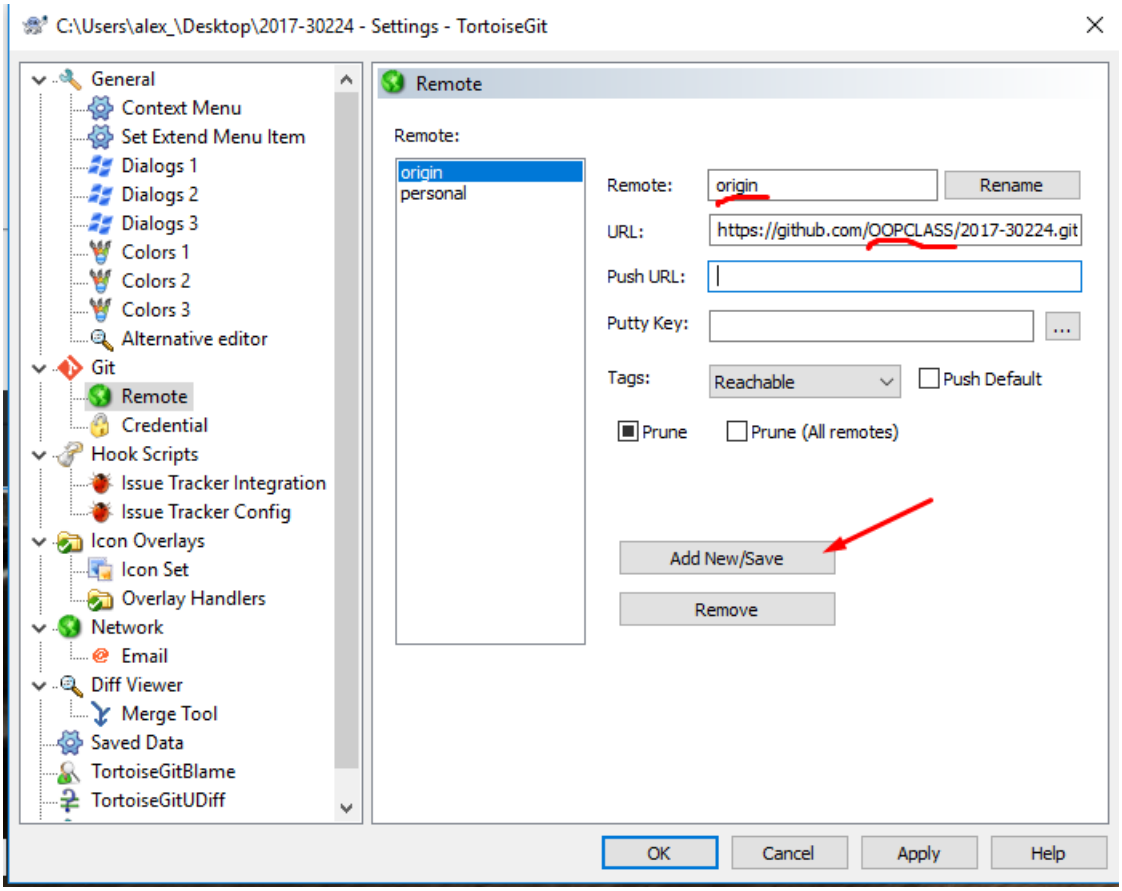

Figure 10: Replace Github account name with organization name

3 TortoiseGit > Pull from origin

Every time I will add some assignments you will need to update the folder you have on your PC. In order to do this you will have to **PULL** the changes every time you want it to be up-to-date. In order to do so, you will have to go to inside the repository on your PC. As shown in figure 11 right-click and go to **TortoiseGit > Pull..**.

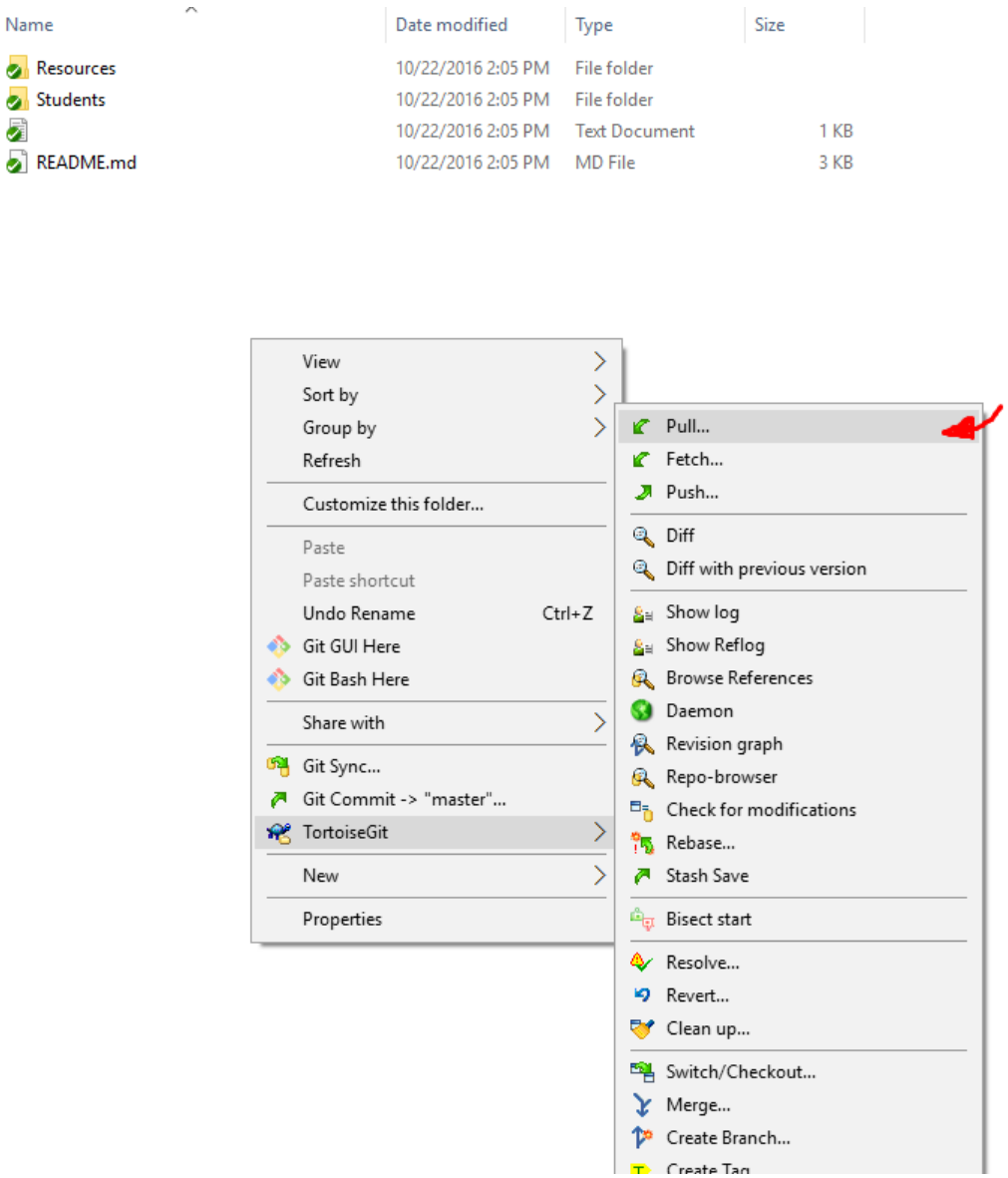

Figure 11: TortoiseGit > Pull..

In order to complete the **PULL** routine you have just started make sure that in the window that just popped-up you select to **PULL** from origin as shown in figure 12. Hit **OK** and if everything went alright you should see a blue text which contains *Success* ...

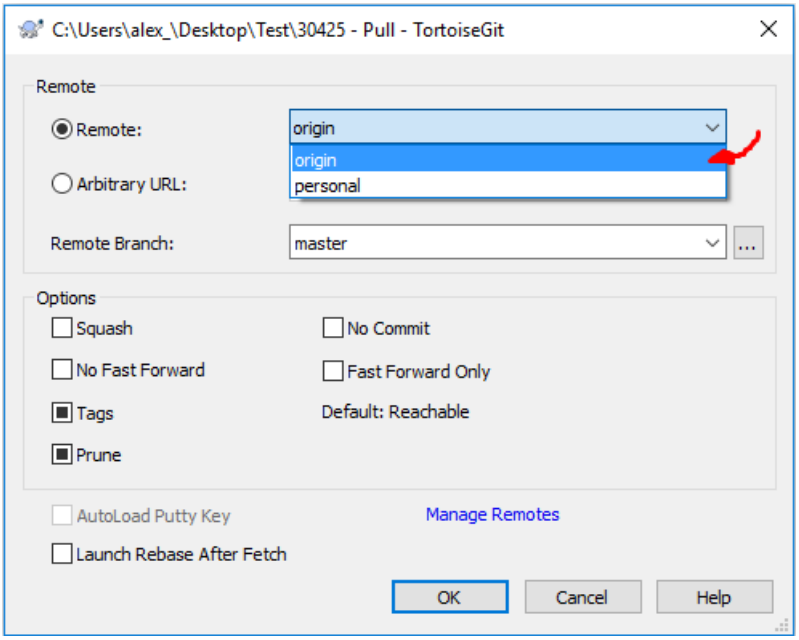

Figure 12: Select **origin** when doing a pull

4 TortoiseGit > Push to personal

Every time you will do some changes (e.g. writing the code for an assignment) you will have to **PUSH** those changes to your personal online repository. Let's say you have just completed one assignment and you want it to be sent so that I can give you the feedback you need. Assuming that you added the code inside **2018-30224> Students > Your Name** you will be able to perform the next steps (It is recommended that you setup your workspace from Eclipse in the folder I have just mentioned so that everything you write in Eclipse will be added directly to that folder).

First thing you will have to do is to go to your repository (2018-30224) on your PC right-click and **Git Commit -> "master"...** as shown in figure 13.

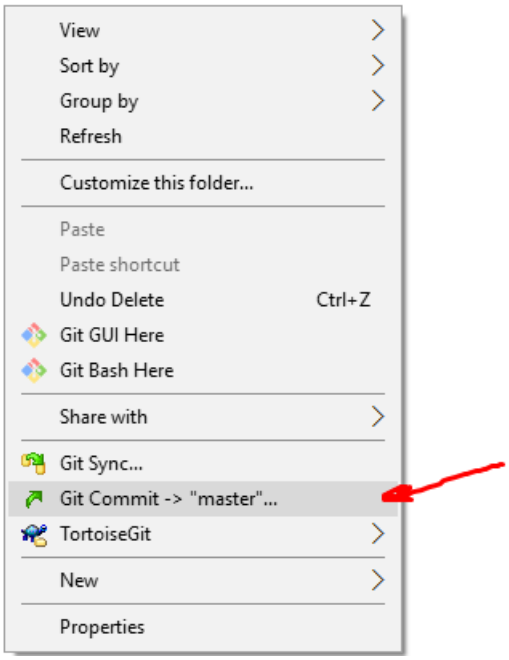

Figure 13: Git Commit -> "master"...

Once you performed the previous step you will be prompted to enter the commit message. The commit message should always be a sentence or more that describe what you did exactly (e.g "Finished my first assignment"). The window where you ahce to enter your commit message is presented in figure 14. Enter your message and click **Commit**.

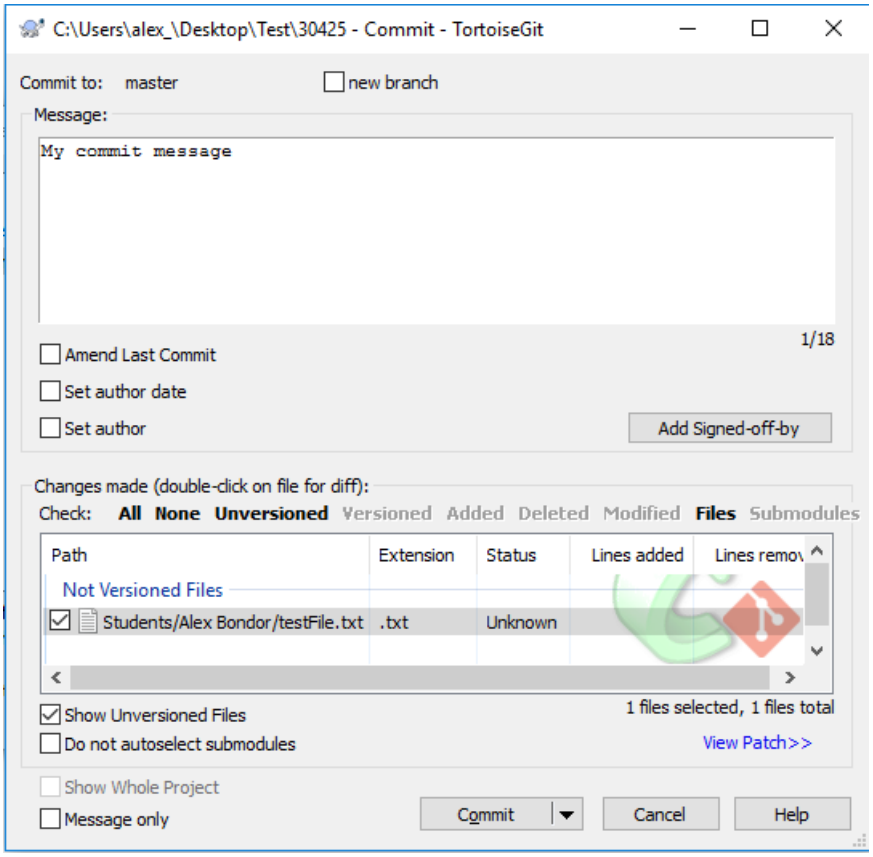

Figure 14: Commit message

In the next step you will have to **PUSH** your changes to your personal online repository. Figure 15 shows that you will need to right-click inside your repository and got to **TortoiseGit** > **Push...**.

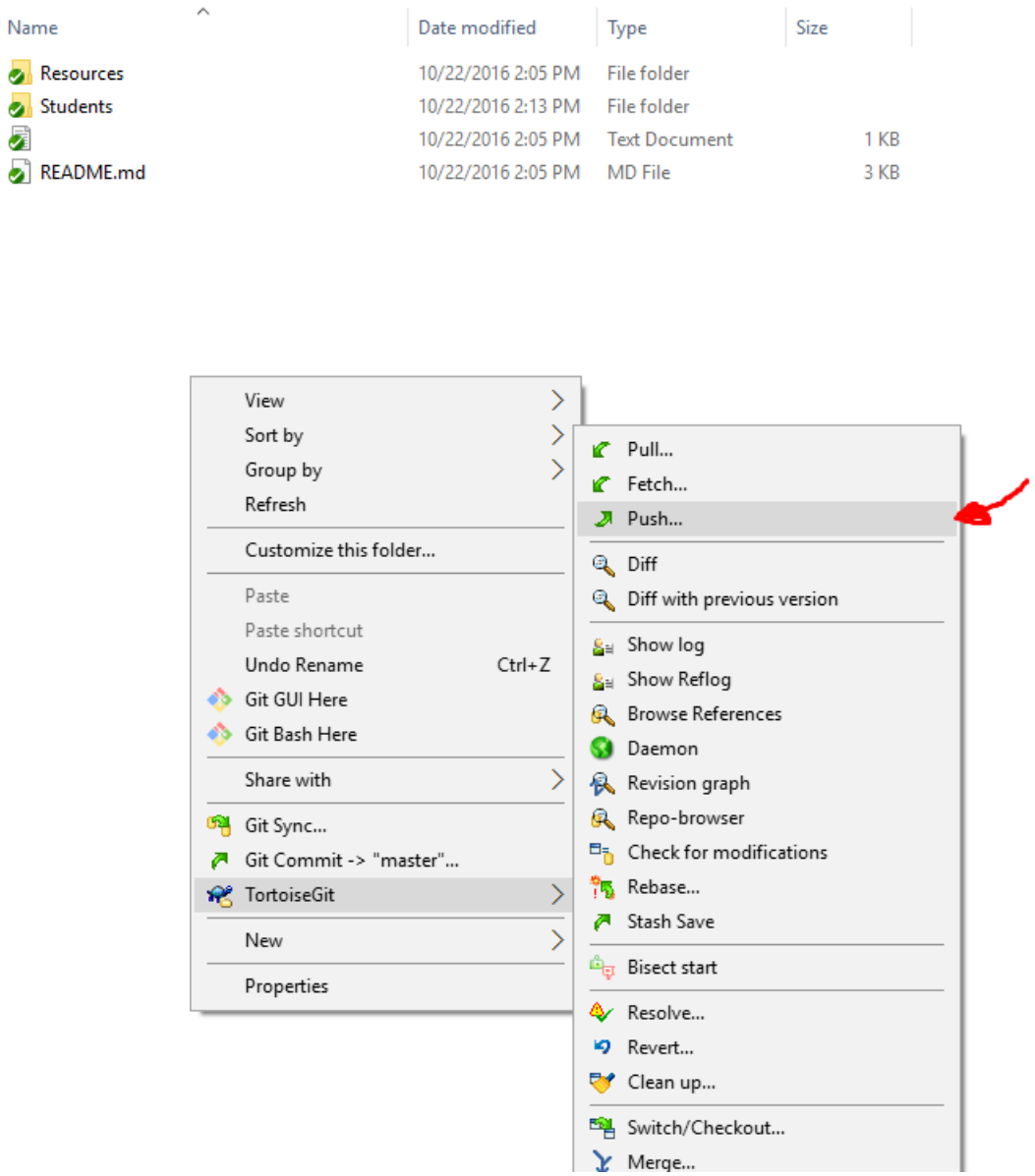

Figure 15: TortoiseGit > Push...

Before concluding the **PUSH** routine you have just started make sure that in the window that just popped-up you select to **PUSH** to personal as shown in figure 16. Hit **OK** and if everything went alright you should see a blue text which contains *Success...*

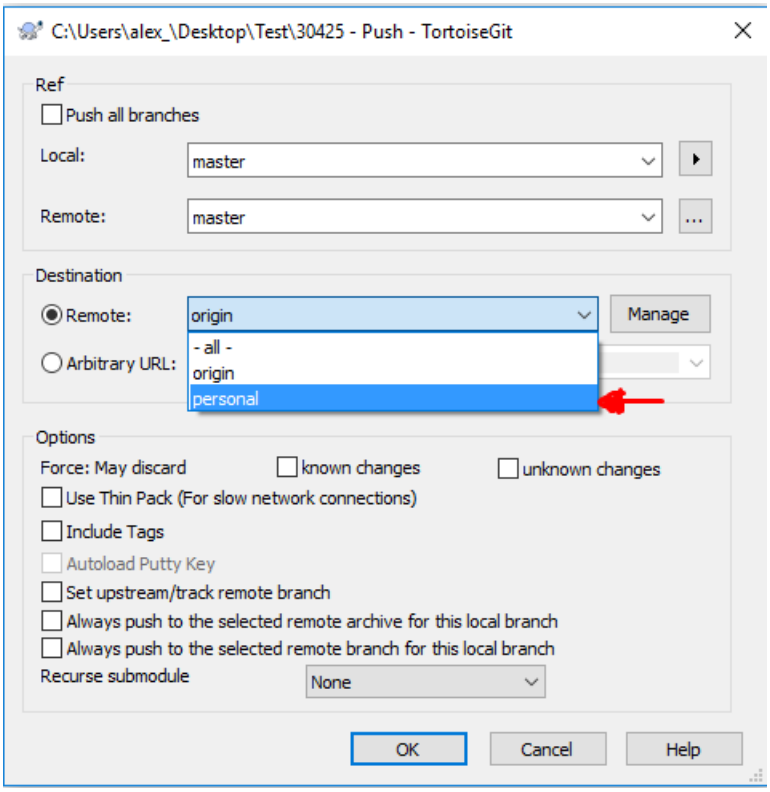

Figure 16: Select **personal** when doing a push

For now, the changes that were just pushed are only available on your personal online repository. In order to make them available for me to review them you will need to **always** conclude with a **pull request**. In order to create a new pull request you will have to navigate from your browser to the URL of your personal repository and go to the **Pull requests** tab as shown in figure 17. Make sure that it is your own repository and not the main one (OOPCLASS).

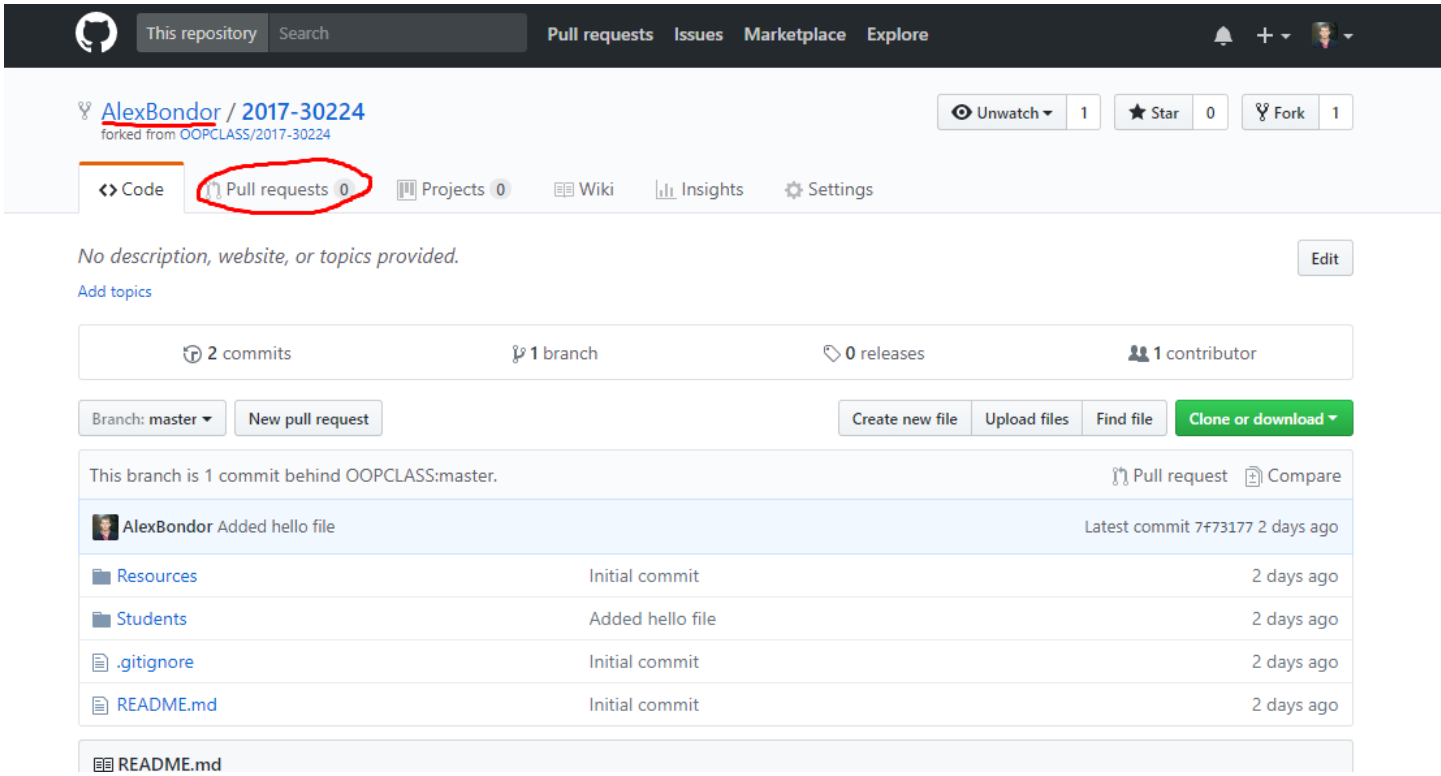

Figure 17: Initiate a pull request

From the **Pull requests** tab it is straight forward what you will have to do. Click the green button **New pull request**, enter a message there and click again **Create pull request**. If you don't see the **New pull request** button don't worry; your new changes have been added to your previous pull request if I didn't accept it already.

If you want to make sure that your pull request was successfully created, you can navigate in your browser to the main repository and in the **Pull requests** tab you can search for the pull request you have just created. If it is there, then I got it and I can check it as well.