

What is Git?

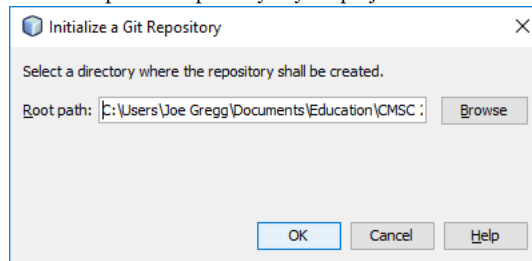
A source control system is a client/server system that allows a team of programmers to cooperate on a project and share code with each other. To use a source control system, a programmer will create a project in an IDE such as NetBeans and upload the project to the source control server. Other programmers who want to work on that code then go to the server to check out the source code for the project. Any programmer can then modify the source code they have checked out and subsequently commit their changes back to the server. At any point in time, a programmer can issue a command to update their project and the source control system will download the most recent changes from the source control server and integrate those changes with their project.

There are several different source control systems available, including Subversion, Git, and Mercurial. NetBeans has built-in support for all three of these source code control systems. We will be using Git as the source control system for our final project. The web site github.com (<https://github.com/pricing>) offers free Git hosting for open source projects. We will be using github.com to host the projects for our final group project.

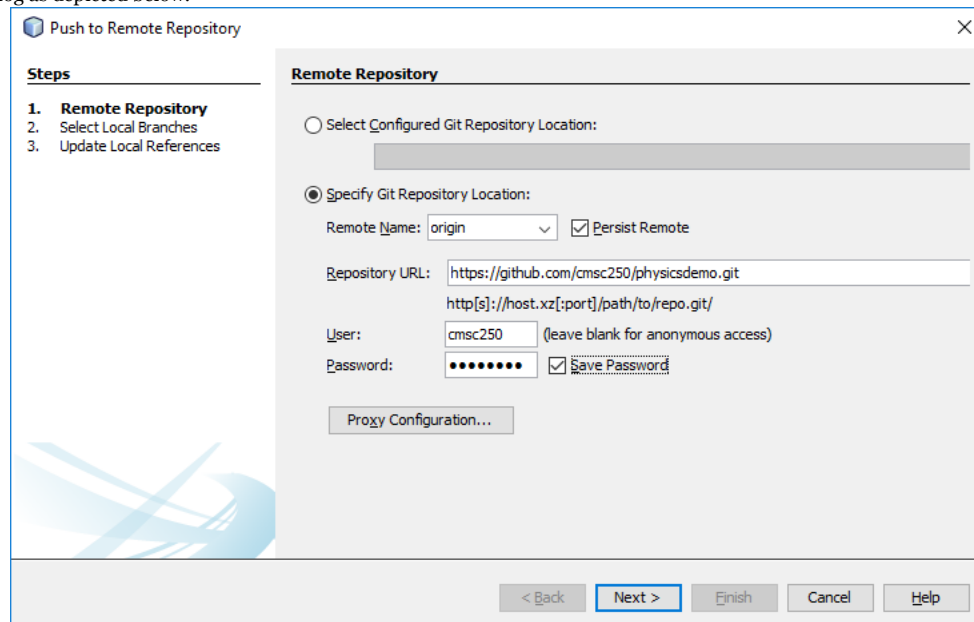
Create a repository for your project

To create a git repository on github for your own project, follow these instructions.

1. Go to github.com/new and enter a name for your repository. Click the "Create Repository" button.
2. After creating the repository, make a note of the repository URL.
3. Create a new project in NetBeans, or open an existing project. Right-click on the project and select Versioning/Initialize Git Repository... This will create a local repository for your project. (By default, NetBeans will put this repository in your project folder.



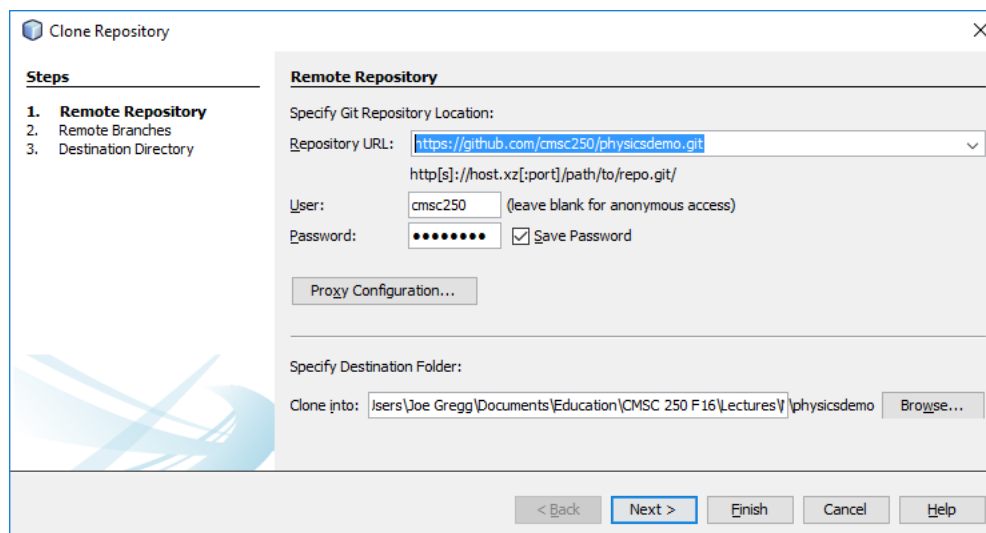
4. Right-click on the project again and select the option Git/Commit... to commit your project's current source code to the local repository.
5. Right-click on the project again and select Git/Remote/Push... to push your project to the remote repository on github.com. Put the repository URL you got from github in the dialog as depicted below.



Fetch the project from the github repository

In NetBeans, select Git/Clone... from the Team menu.

Enter the github URL for your project along with the account user name and password.



NetBeans will prompt you for a location on your local drive to clone the project to.

Commit changes to the repository

Once you have placed a project under version control, NetBeans will automatically track any changes you make to the project.

As you make changes, you can commit those changes to the local repository by selecting Commit... from the Team menu. Periodically you should also push your changes to the remote repository by selecting Remote/Push.. from the Team menu.

If members of your group have pushed changes to github, you can download those changes to your NetBeans project by selecting Remote/Pull... from the Team menu.

More information about git

More information about how to use git source control with NetBeans is available here (<https://netbeans.org/kb/docs/ide/git.html>).