

Getting Started with git

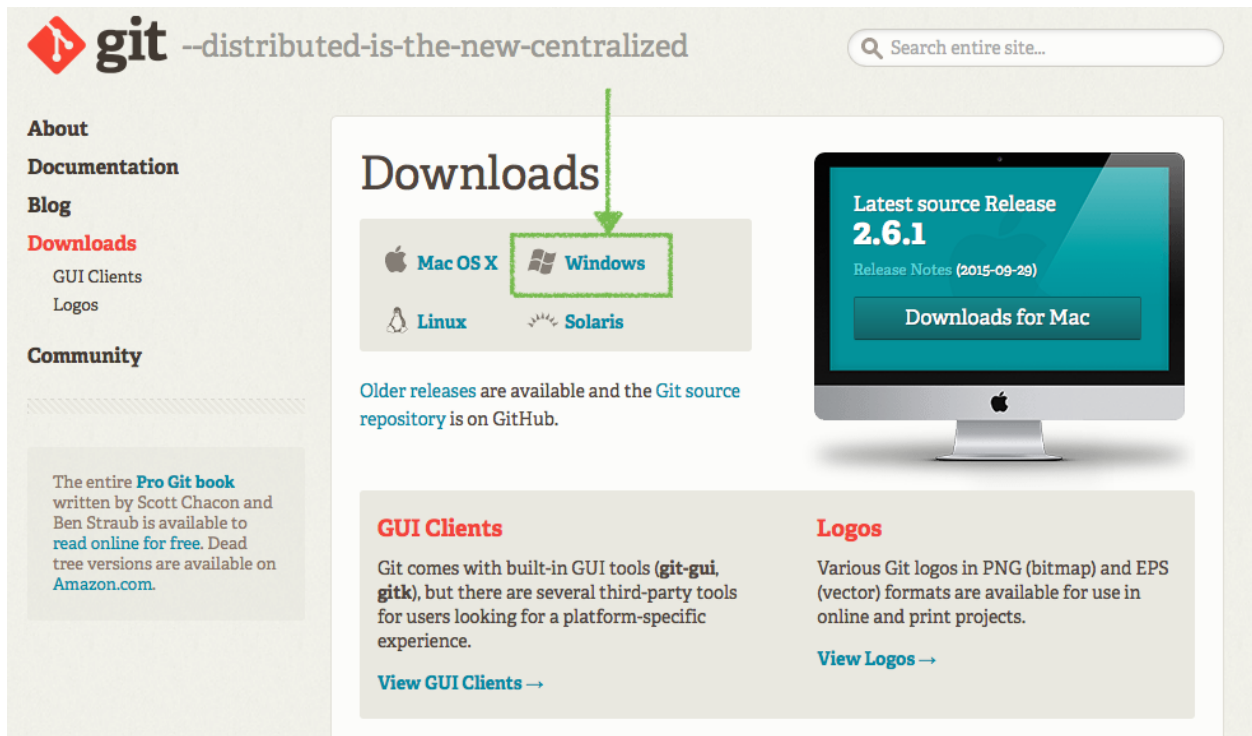
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Getting started with *git*

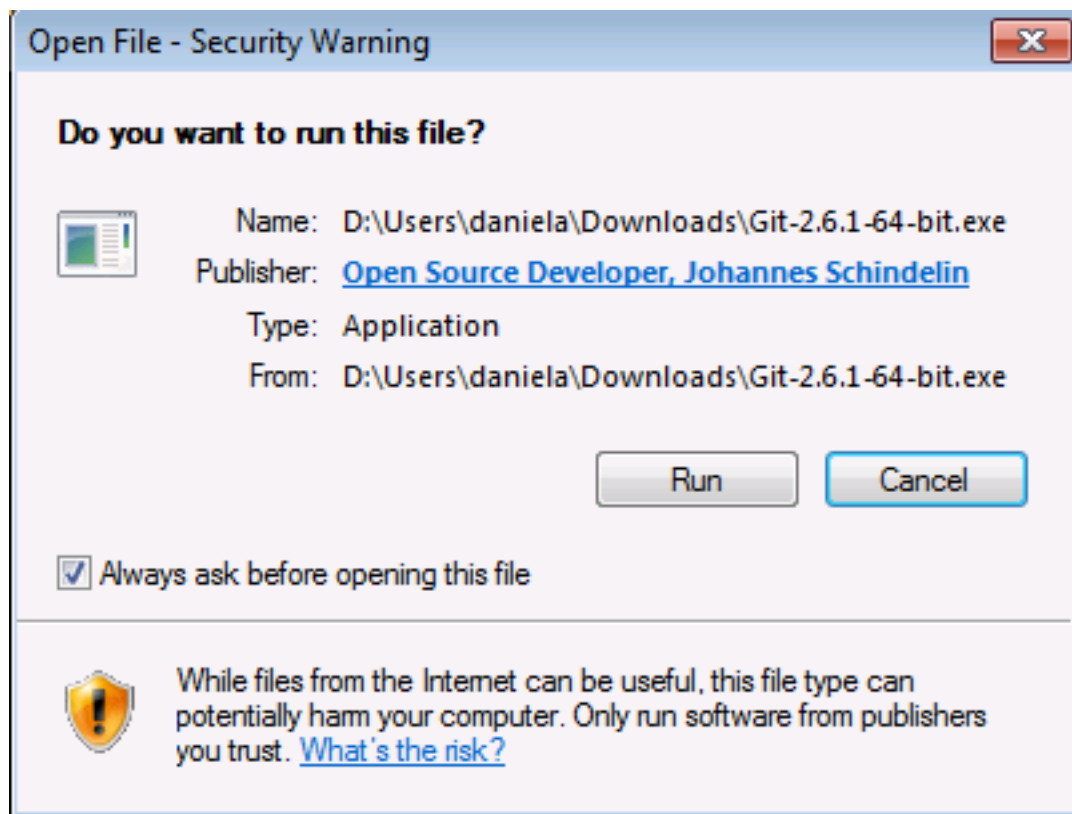
git is a version control system for collaborating on code. The largest git hosting engine is [github](#). However, github is separate from *git* itself. There are multiple git host sites. For example [Bitbucket](#) is another popular host site that has some advantages over github like free private repositories (github repositories are all public, unless you pay a monthly fee). For this course, we'll be using *git* with github. You will need to only understand the very basics of *git* for the purposes of this class, but if you are going to go on to do any serious coding, you'll want to become more familiar with it. The first two chapters of the *Pro Git* book, available [here](#) will provide you with most all the background you need. The purpose of this document is to provide you an overview of installing *git* and cloning the course repository.

Installing *git*

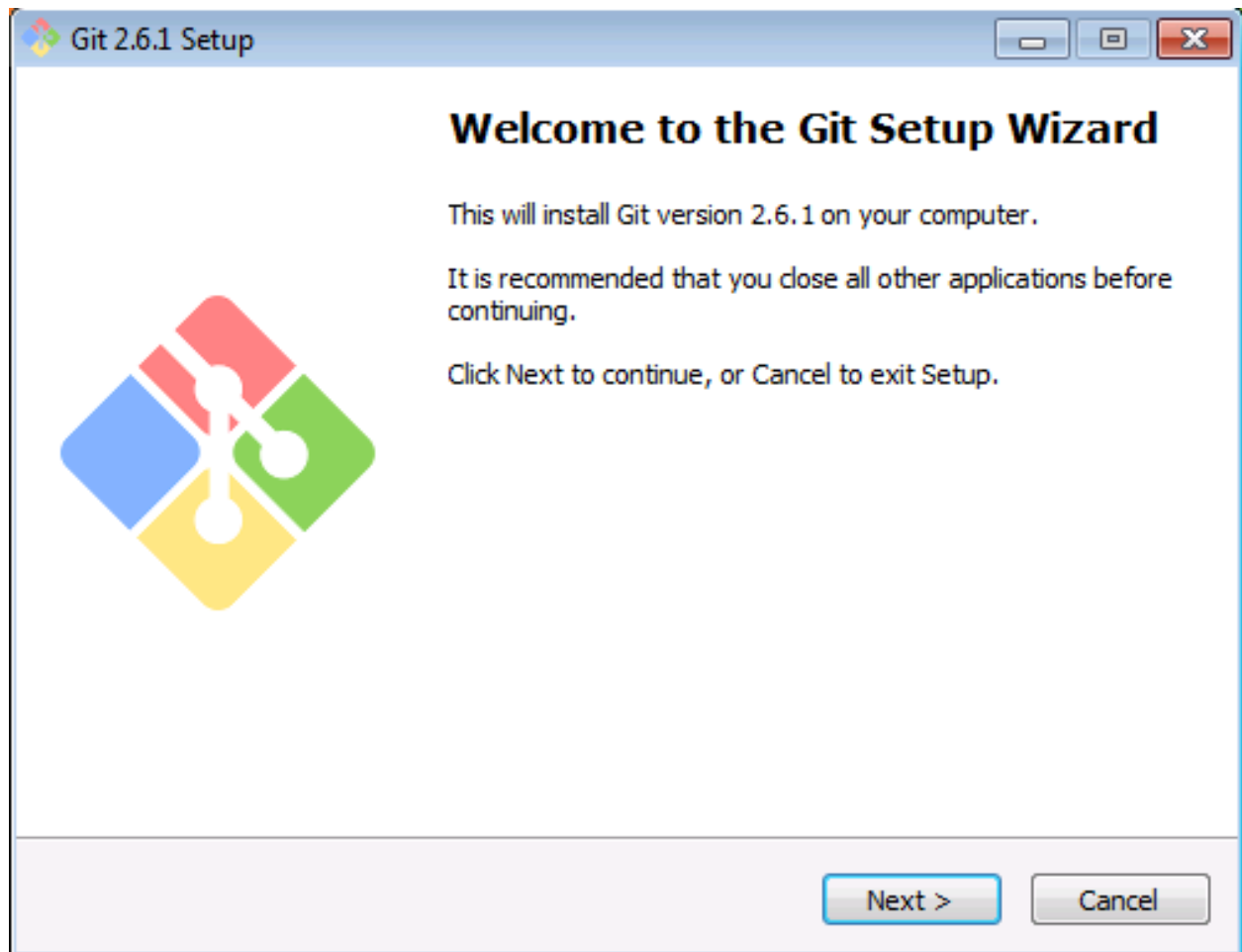
Installing *git* is straight forward. Simply go to the downloads portion of the *git* [website](#) and click on the Windows logo.



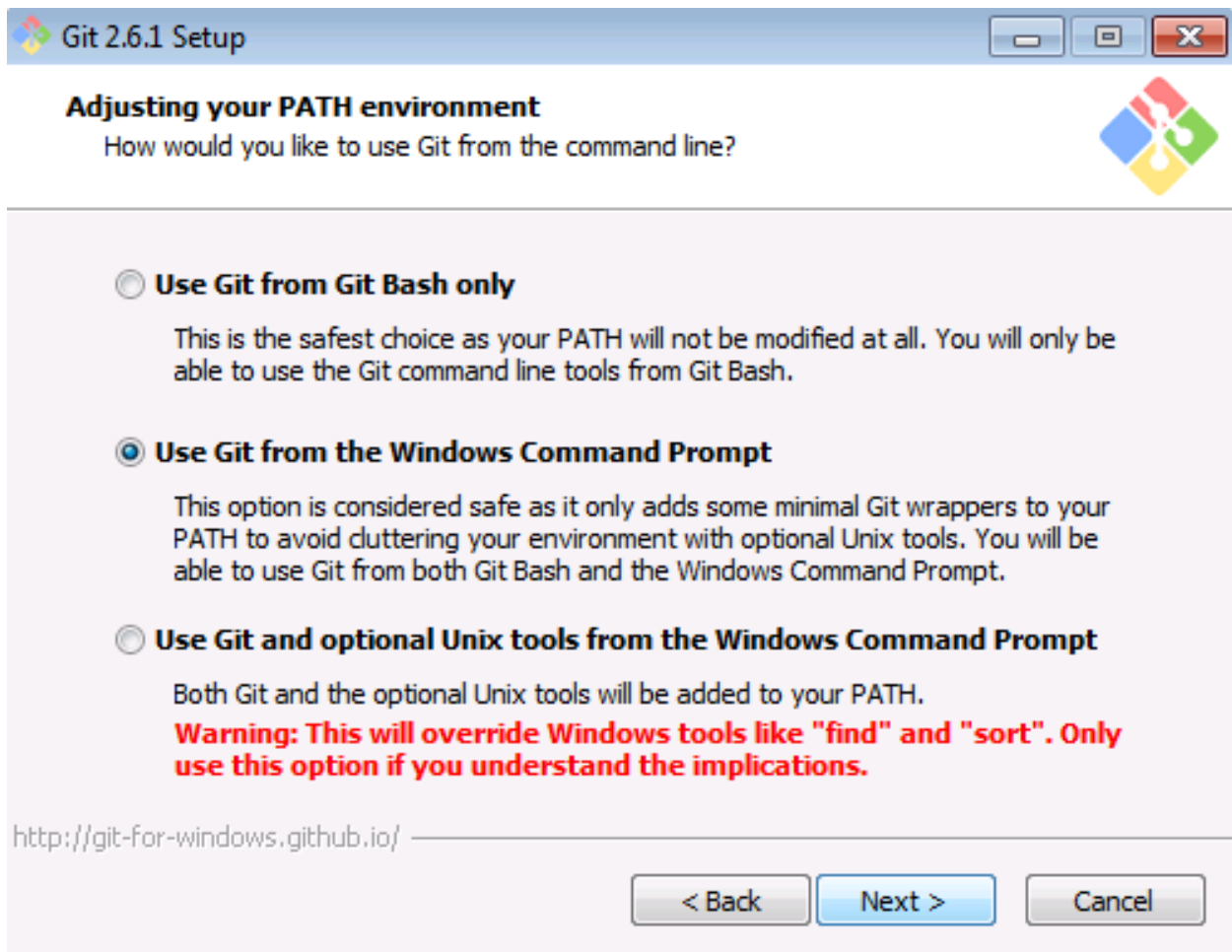
You should then get an executable file (.exe). Launch the file and you will be prompted by a security warning. Click "Run".



The installer then should launch.



Click “Next” until you get to the path setup. Make sure that “Use Git from the Windows Command Prompt” is selected.



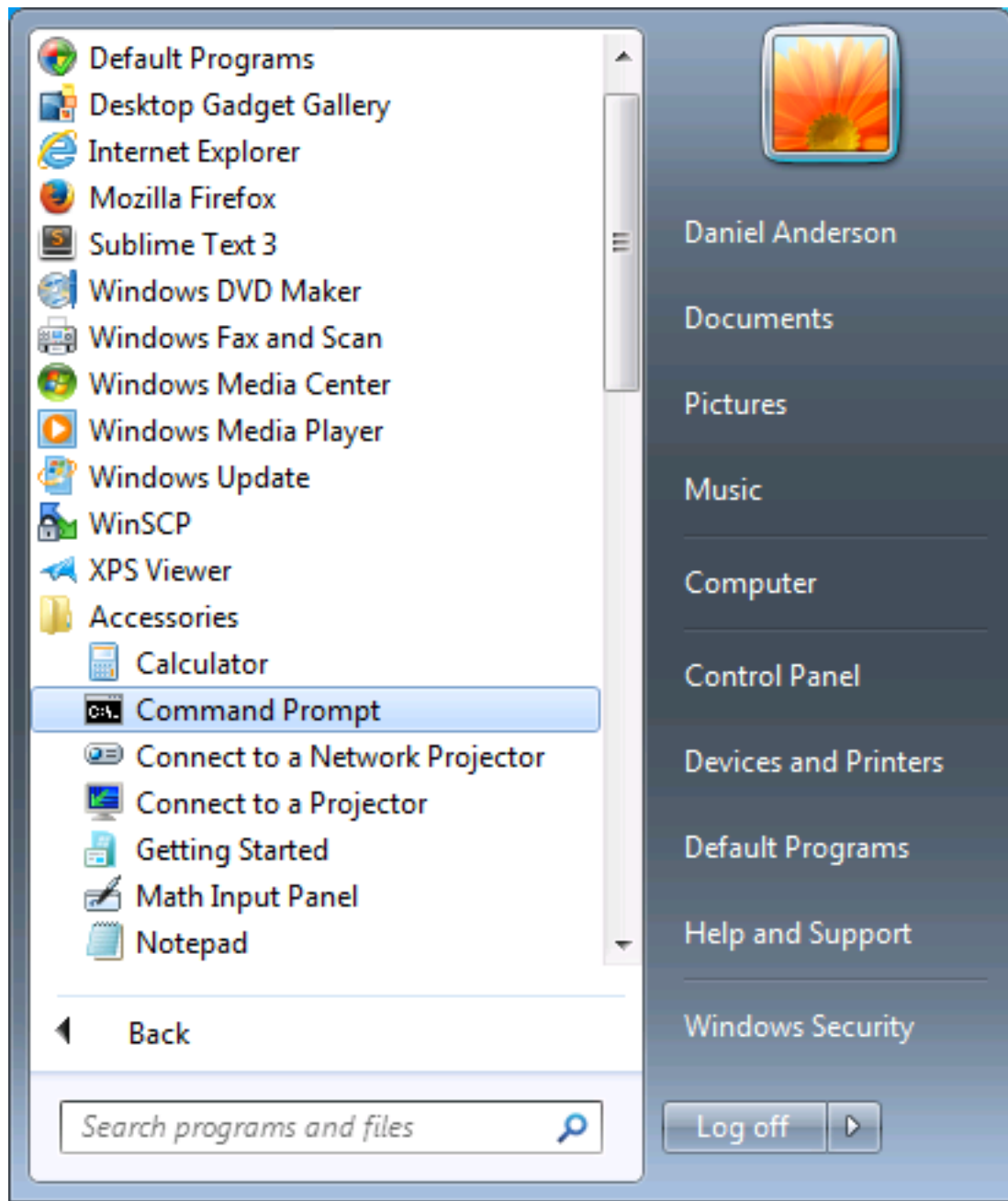
Note. After running the installer, *git* will be installed on your computer. However, you will not see it in your Program Files or anywhere else. Rather, it is installed as part of the command line tools, and you'll access *git* via the Command Prompt.

Cloning the course repository

This tutorial describes how to clone the course repository through the Command Prompt. There are many free *git* graphic user interfaces (GUIs) that many people use. The windows *git* installation also installs a GUI. I don't know any of the GUIs, and prefer to just work with the code, but you can feel free to explore them.

Launch the Command Prompt

Command Prompt is a windows application to interface with software, etc., with code. It is available from the start menu in the Accessories folder



After launching the Command Prompt, change your directory, via `CD` to where you would like all the course materials saved. One of the easiest ways to do this is to type `CD` and then a space, and then just drag the folder to terminal where you want the materials saved. The path will then be automatically copied into terminal.

```
C:\> Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

d:\Users\daniela>CD D:\Users\daniela\School_
```

Finally, go to the [course github repository](#) and copy the link to clone the repository.

DJAnderson07 / CourseR

Unwatch 1 Star 0 Fork 0

R course — Edit

5 commits 1 branch 0 releases 1 contributor

Branch: master CourseR / +

File/Folder	Commit Message	Time Ago
Added Week 1 as a submodule		
DJAnderson07	authored 17 minutes ago	latest commit 4b462a252d
Presentations	Week 1	an hour ago
Syllabus	Week 1	an hour ago
Week1 @ 8246e9d	Added Week 1 as a submodule	17 minutes ago
data	Week 1	an hour ago
hw1	Week 1	an hour ago
.gitignore	Added .DS_Store	29 minutes ago
.gitmodules	Added Week 1 as a submodule	17 minutes ago
LICENSE	Initial commit	an hour ago
README.md	Week 1	an hour ago

README.md

Code

Issues 0

Pull requests 0

Wiki

Pulse

Graphs

Settings

HTTPS clone URL

https://github.com/DJAnderson07/CourseR.git

You can clone with HTTPS, SSH, or Subversion.

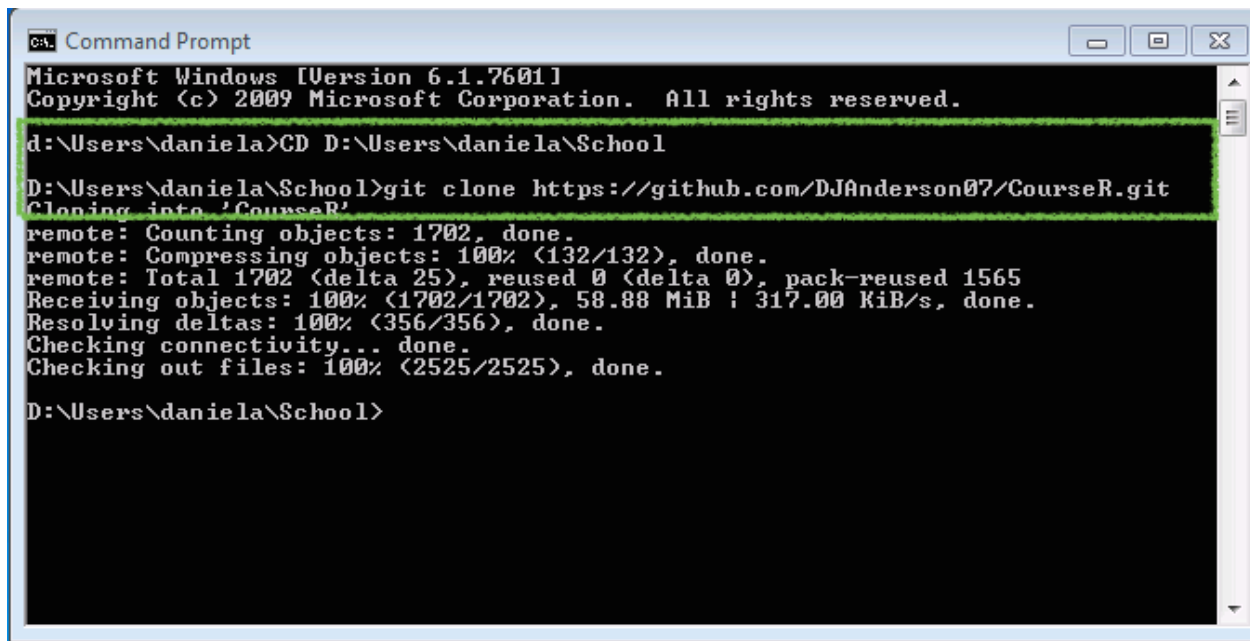
Clone in Desktop

Download ZIP

and type `git clone` into the Command Prompt, followed by the link (i.e., paste the link). It should look like this

```
git clone https://github.com/DJAnderson07/CourseR.git
```

After you hit enter, the course materials should all be cloned (copied) into your directory.

A screenshot of a Windows Command Prompt window. The title bar reads "Command Prompt". The window shows the following text: "Microsoft Windows [Version 6.1.7601] Copyright (c) 2009 Microsoft Corporation. All rights reserved." followed by a green highlight around the command "d:\Users\daniela>CD D:\Users\daniela\School". Below this, another green highlight is around the command "D:\Users\daniela\School>git clone https://github.com/DJAnderson07/CourseR.git". The output of the command is displayed below: "Cloning into 'CourseR'", "remote: Counting objects: 1702, done.", "remote: Compressing objects: 100% (132/132), done.", "remote: Total 1702 (delta 25), reused 0 (delta 0), pack-reused 1565", "Receiving objects: 100% (1702/1702), 58.88 MiB | 317.00 KiB/s, done.", "Resolving deltas: 100% (356/356), done.", "Checking connectivity... done.", "Checking out files: 100% (2525/2525), done.", and finally "D:\Users\daniela\School>".

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

d:\Users\daniela>CD D:\Users\daniela\School

D:\Users\daniela\School>git clone https://github.com/DJAnderson07/CourseR.git
Cloning into 'CourseR'
remote: Counting objects: 1702, done.
remote: Compressing objects: 100% (132/132), done.
remote: Total 1702 (delta 25), reused 0 (delta 0), pack-reused 1565
Receiving objects: 100% (1702/1702), 58.88 MiB | 317.00 KiB/s, done.
Resolving deltas: 100% (356/356), done.
Checking connectivity... done.
Checking out files: 100% (2525/2525), done.

D:\Users\daniela\School>
```

Updating the repository

As mentioned in the opening, if you're planning on doing any serious coding, you should really dig into *git* a bit more. However, for the purposes of this class, you should only need one command: `git pull`. The process is pretty easy. Just follow the following steps

1. Launch the Command Prompt
2. type `CD` followed by a space, then drag the course folder (CourseR) into the Command Prompt to get the path. Hit enter.
3. Type `git pull` and hit enter. Assuming the repository has been updated, the Command Prompt should print some messages about some files.

```
Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

d:\Users\daniela>CD D:\Users\daniela\School\CourseR
D:\Users\daniela\School\CourseR>git pull
remote: Counting objects: 12, done.
remote: Compressing objects: 100% (10/10), done.
remote: Total 12 (delta 2), reused 12 (delta 2), pack-reused 0
Unpacking objects: 100% (12/12), done.
From https://github.com/DJAnderson07/CourseR
  eb835d5..4ad2bfd master -> origin/master
Updating eb835d5..4ad2bfd
Fast-forward
 git_Tutorials/gettingStarted_Windows.Rmd | 108 ++++++
 git_Tutorials/img/commandPromptCD.png    | Bin 0 -> 15729 bytes
 git_Tutorials/img/commandPromptLoc.png   | Bin 0 -> 56875 bytes
 git_Tutorials/img/macGitDownload.png     | Bin 268042 -> 276465 bytes
 git_Tutorials/img/winAdjustingPath.png   | Bin 0 -> 37254 bytes
 git_Tutorials/img/winEXE.png             | Bin 0 -> 26674 bytes
 git_Tutorials/img/winGitDownload.png     | Bin 0 -> 273922 bytes
 git_Tutorials/img/winGitSetup.png        | Bin 0 -> 23126 bytes
 git_Tutorials/img/winUserAccountControl.png | Bin 0 -> 44015 bytes
 9 files changed, 108 insertions(+)
 create mode 100644 git_Tutorials/gettingStarted_Windows.Rmd
 create mode 100644 git_Tutorials/img/commandPromptCD.png
 create mode 100644 git_Tutorials/img/commandPromptLoc.png
 create mode 100644 git_Tutorials/img/winAdjustingPath.png
 create mode 100644 git_Tutorials/img/winEXE.png
 create mode 100644 git_Tutorials/img/winGitDownload.png
 create mode 100644 git_Tutorials/img/winGitSetup.png
 create mode 100644 git_Tutorials/img/winUserAccountControl.png
D:\Users\daniela\School\CourseR>_
```

4. Type `git status`. If you see the following message, you should be good to go. If you see something like “master ahead of branch by X commits”, or some other message, you are not up to date. Make sure you’re in the right directory and try `git pull` again. Otherwise, contact me and I can try to help you diagnose the problem.

```
# On branch master
nothing to commit, working directory clean
```