Introduction to Data Science

Data Science Essentials

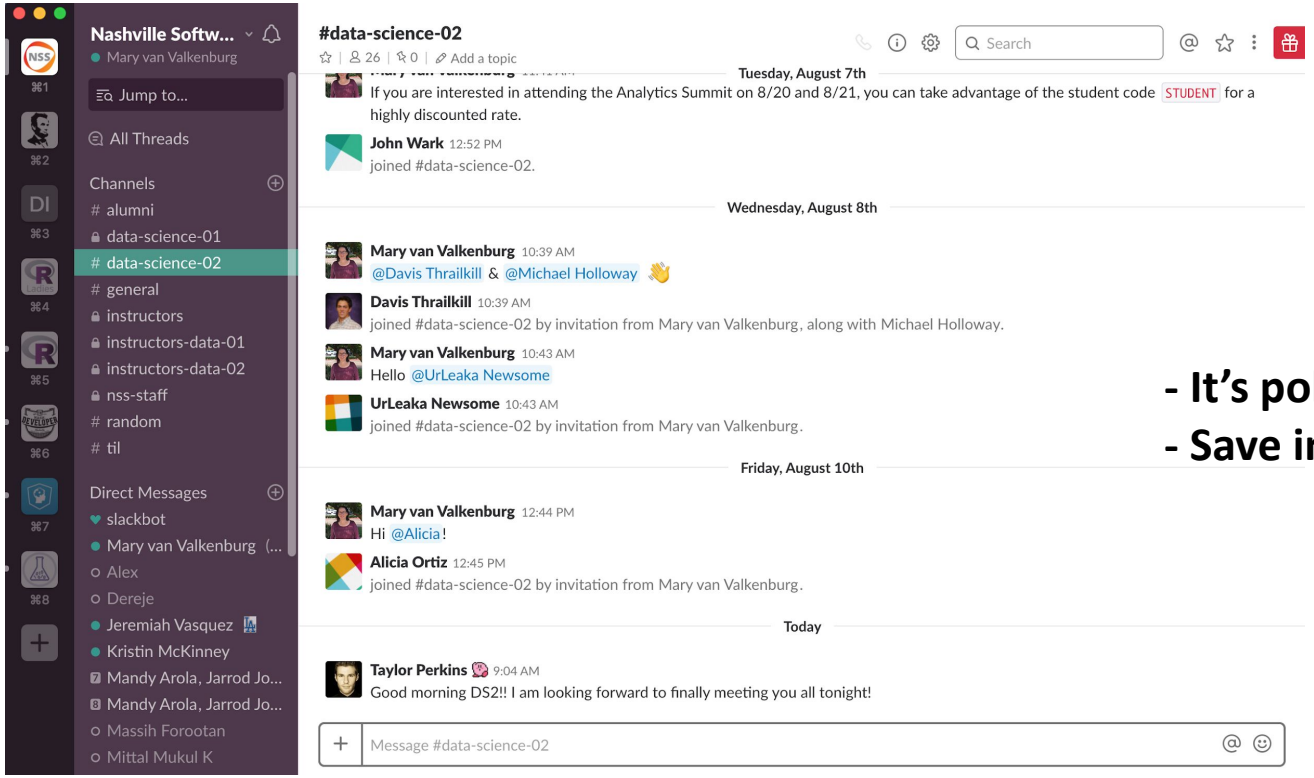
Slack

Channels

- use for teamwork and class communication
- public (anyone can see)

Tags

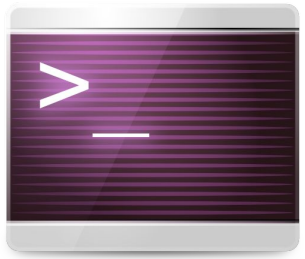
- notify a person by typing the person's user id (starting with **@**)
- notify an entire channel by typing **@channel** notify only the people who are online in a particular channel with **@here**
-
- **Direct Messages**
- communicate privately (no **@** needed)



- It's polite to acknowledge messages with :+1:

- Save important shared items (free slack has limitations)

Command Line



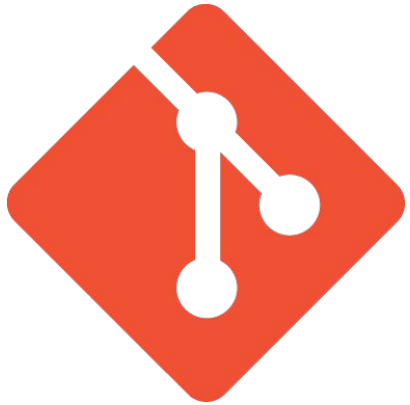
pwd
ls
cd
cd ..

mkdir
rmdir
mv
touch
cat

conda list
conda install <package name>

Linux/Mac: Terminal
Windows: Git Bash (for using Git); Anaconda Prompt (for working with conda)

Resources:
https://www.learnenough.com/command-line-tutorial
https://learnpythonthehardway.org/python3/appendixa.html
https://www.datacamp.com/courses/introduction-to-shell-for-data-science



git and GitHub

You may already have git installed: from the terminal (or Anaconda Prompt on Windows), try typing

$ git --version

If this doesn’t work, browse to https://git-scm.com/downloads and download the appropriate version. If on Windows, download from https://gitforwindows.org/, which will also download Git Bash.

Today’s tasks:

- Create an account on GitHub (unless you already have one)
- Fork the repo on GitHub to put a copy in your account
- Clone your fork to your laptop (local repository)
- Launch the Jupyter notebook from your local repository
- Get a tour of Jupyter
- Walkthrough the python review notebook
- Push changes back to GitHub

Command Line Introduction

pwd

“print working directory” - tells you where you are located

ls

lists the contents of the current directory

cd <directory name>

changes the directory to the one specified

cd ..

Takes you up on level in the directory structure

Use these commands to navigate to the directory where you want to create the repo for this class.

Repository Setup

First, fork the repository here:
https://github.com/Vanderbilt-Aspire-Data-Science/data-science-essentials-4

Then, ensure that you are on the forked version on your personal GitHub

Finally, clone your remote repository to create a local repo by copying the clone url from github.com and then running from the terminal:

git clone <url to repository that you copied>

Create a PAT

Before pushing changes, we must create a personal access token on GitHub.

1. Open *settings* by clicking on your profile picture in the upper right corner.
2. In the menu on the left, choose *Developer Settings*, then choose *Personal access tokens*
3. Choose *Generate new token*, give it a name, and ensure that you have selected the **repo** scope
4. Take the resulting token and save it somewhere (or email to yourself).

Pushing work to GitHub

1. Work on files locally. When done, run

   ```
   git add <files>
   ```

2. Commit changes:

   ```
   git commit -m '<message>'
   ```

3. Push to GitHub:

   ```
   git push origin master
   ```

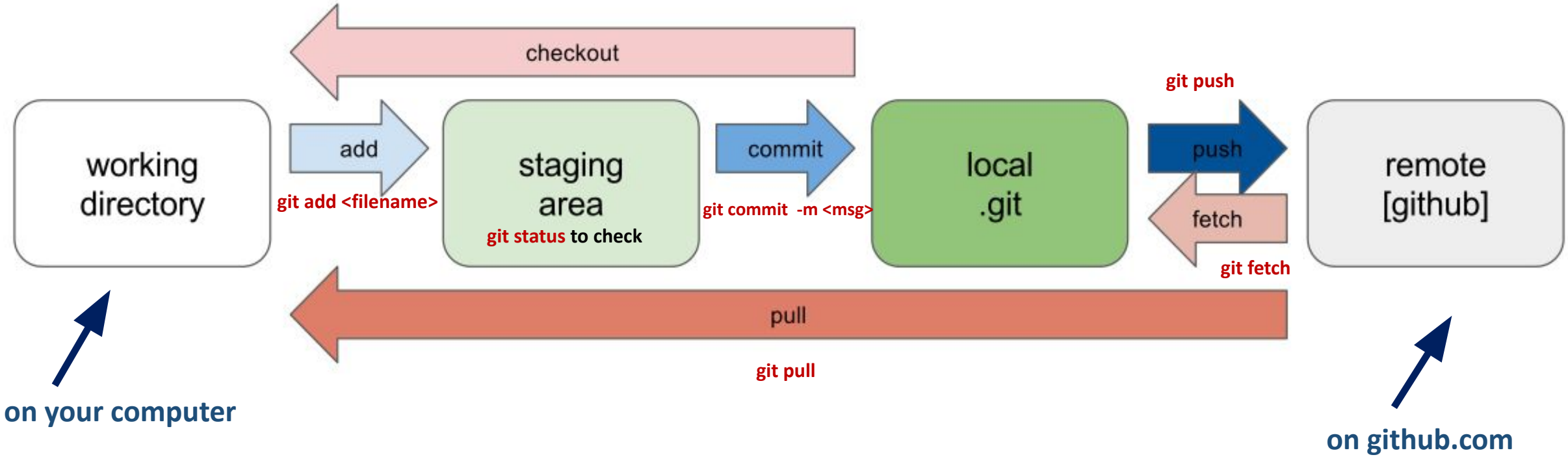


Image: https://edav.info/github.html