



# Module 1 Day 1

Introduction to Tools

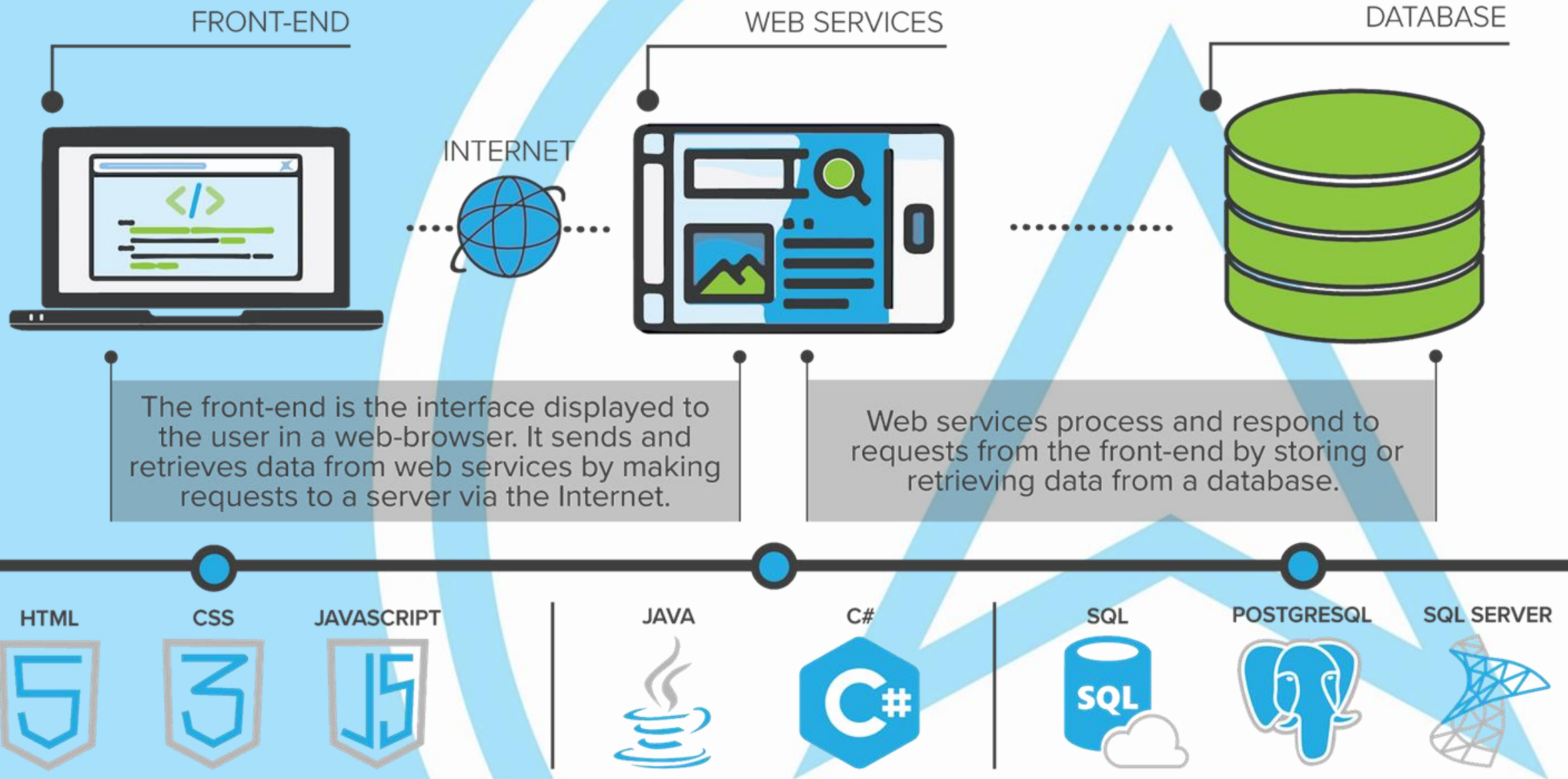
# Mike Morel

- [mike@techelevator.com](mailto:mike@techelevator.com)
- <https://www.linkedin.com/in/michael-morel/>
- Ryver: Mike Morel (@mmorel)
- Hours: 8:00am – 4:30pm

# Today's Goals

- More About the Program
- Windows / File Explorer
- Intro to Command shell (Bash)
- Git Source Code Control
- Git commands review

# WHAT WE TEACH



# HOW WE TEACH

## DAILY CADENCE



## SUPPORTING RESOURCES



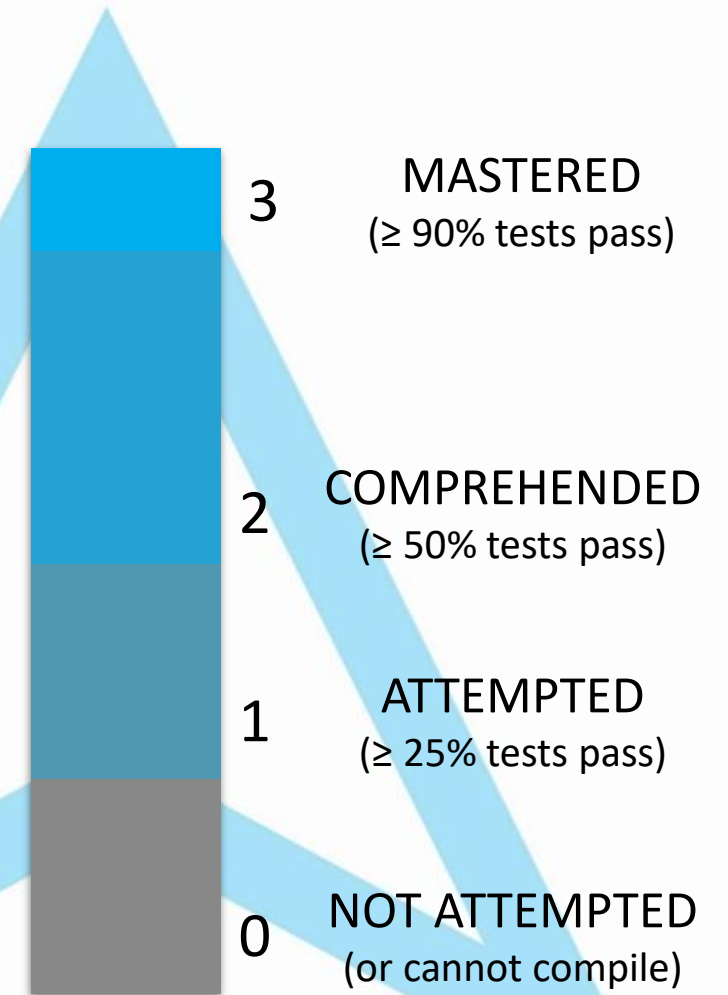


# Your Typical Day

8:45am	Quiz closes <a href="https://socrative.com/">https://socrative.com/</a> (CLENET14)	You are expected to complete all quizzes to help you and me assess your understanding.
9:00am – noonish	Pulse survey Quiz review Class instruction	We will try to take a break around the top of each hour.
Noonish or 3pm-ish	Hours vary, but there MAY be Pathway sessions	There are not Pathway sessions every day, but a few times per week.
Afternoons	Individual exercises Pairs exercises (some days)	Homework. Don't forget to PUSH your work!!! Homework is due 2 <sup>nd</sup> morning after it is assigned. (homework assigned Monday is due Wednesday 9:00am)
Mid-afternoon	Quiz opens on Socrative.com Lecture code pushed to c-main Recording posted to Ryver	
Afternoons / evening	Take quiz on today's topic Read student book on tomorrow's topic	Please complete the quiz prior to the start of class. <a href="https://socrative.com/">https://socrative.com/</a> (CLENET14)

# Exercises: Master and Understanding

- Our exercises focus on **mastery of key concepts**.
- Feedback is provided so you can **know where you need to improve**.
- Your average should remain **at or above 2.0**.
- **Any work submitted must be your own**. We may ask you to explain your code to us!
- **Please seek out an instructor or another classmate if you need help!**
- You may resubmit a score  $< 2$  for re-grading to get to a 2.



# Exercises: Due Dates

Exercises are distributed daily via Git. You submit them by *pushing your code* back to BitBucket.

EXERCISES GIVEN...	ARE DUE...
Monday	Wednesday 9 AM
Tuesday	Thursday 9 AM
Wednesday	Friday 9 AM
Thursday	Monday 9 AM
Friday	Tuesday 9 AM

Exercises not turned in by the deadline receive a “0”. Once the exercise is late, the highest score you can receive is a “2”.



# Other Stuff

- Please do your part in keeping lessons interactive
- Pace is fast
  - If you are bored to start, that will probably change soon. Use the opportunity to help a classmate.
  - Please remain caught up. If you feel yourself falling behind, reach out (to a classmate, to an instructor, to Marty)
- I'll be scheduling a short (15-minute) 1:1 with you to:
  - get to know you a little bit
  - understand any challenges that may make it difficult for you to be successful while you are here.

# Verify Your Machine

- Any outstanding issues from last week?

# Windows / File Explorer

- Windows Start
  - Finding programs
  - Pinning to Start, Taskbar
- File Explorer
  - Launching
  - Current Working Directory (Folder)
  - Navigating
  - Creating Folders and Files
  - Deleting Folders and Files

# Command Shell (Bash)

- The “working directory” (aka, folder)
  - `pwd` – Print working directory
  - `cd` – changes the current working directory
  - Absolute vs relative paths
- Creating and deleting folders
  - `mkdir` – Make directory
  - `rmdir` – Remove directory
- Special symbols: `~` `/` `.` `..`
  - `/` root directory
  - `~` user's home directory
  - `..` the current directory's parent

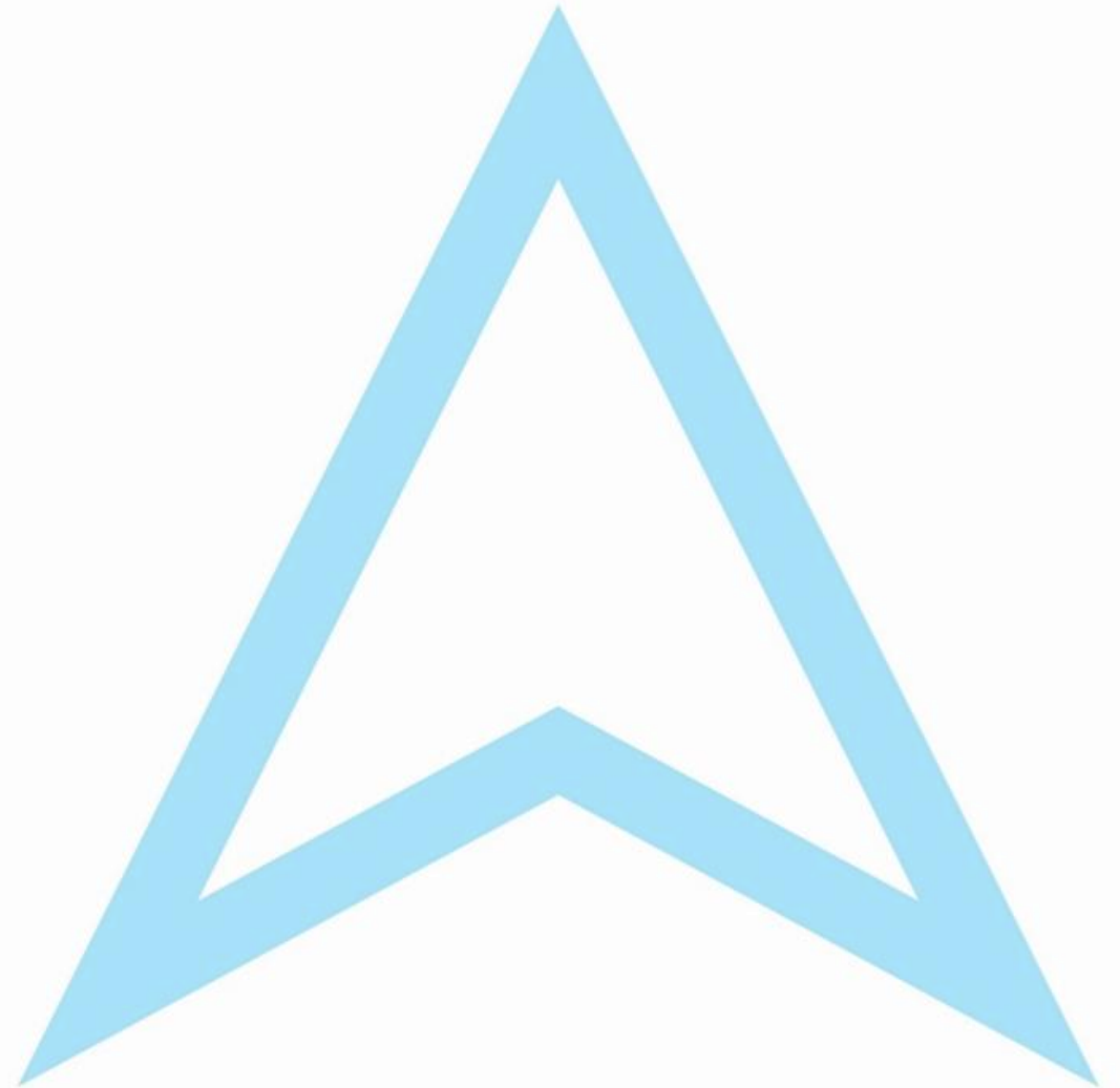
# Command Shell (Bash)

- Listing, creating and deleting files
  - `ls`
  - `touch filename.ext` – creates an empty file (updates the mod date of an existing file)
  - `rm filename.txt` – remove (delete) a file
  - `mv source.txt target.txt` – Move (rename) a file
  - `cp source.txt target.txt` – Copy a file
- Recursively Delete folders and files
  - `rm -r foldername`
- Cheat sheet: <https://www.git-tower.com/learn/cheat-sheets/cli>



# Source Code Control with Git

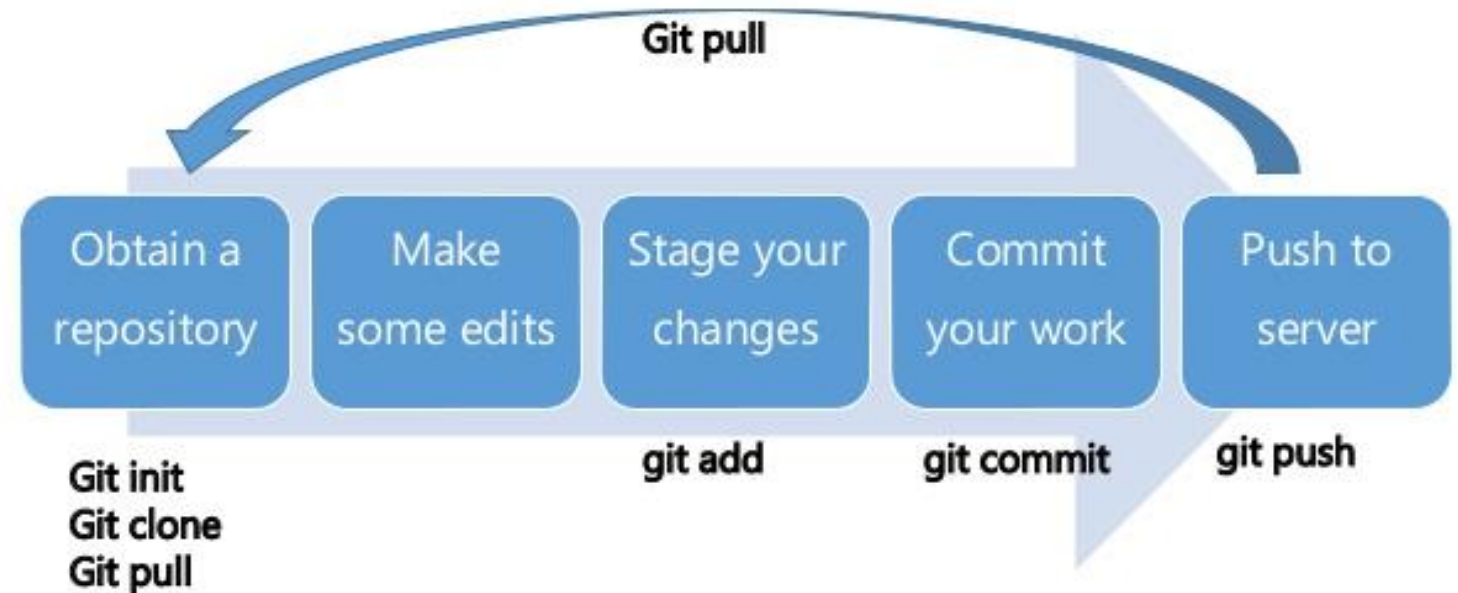
- Version Control
  - Code-sharing
  - History
  - Parallel development
- Git
- Local and remote repositories
- BitBucket and GitHub



# The Git Workflow

- Git clone
- Git pull
- Git add
- Git commit
- (git pull & git commit)
- Git push

## Git usages : Understanding Git Workflow



# Three-tree Architecture

## 1. The Working Directory

- This is your local folder tree

## 2. The Staging Index (or just Index)

- This is a place that "collects" one or more changes to be committed to the repository

## 3. The Repository (or HEAD)

- This is where "committed" or "good" code is stored for posterity.

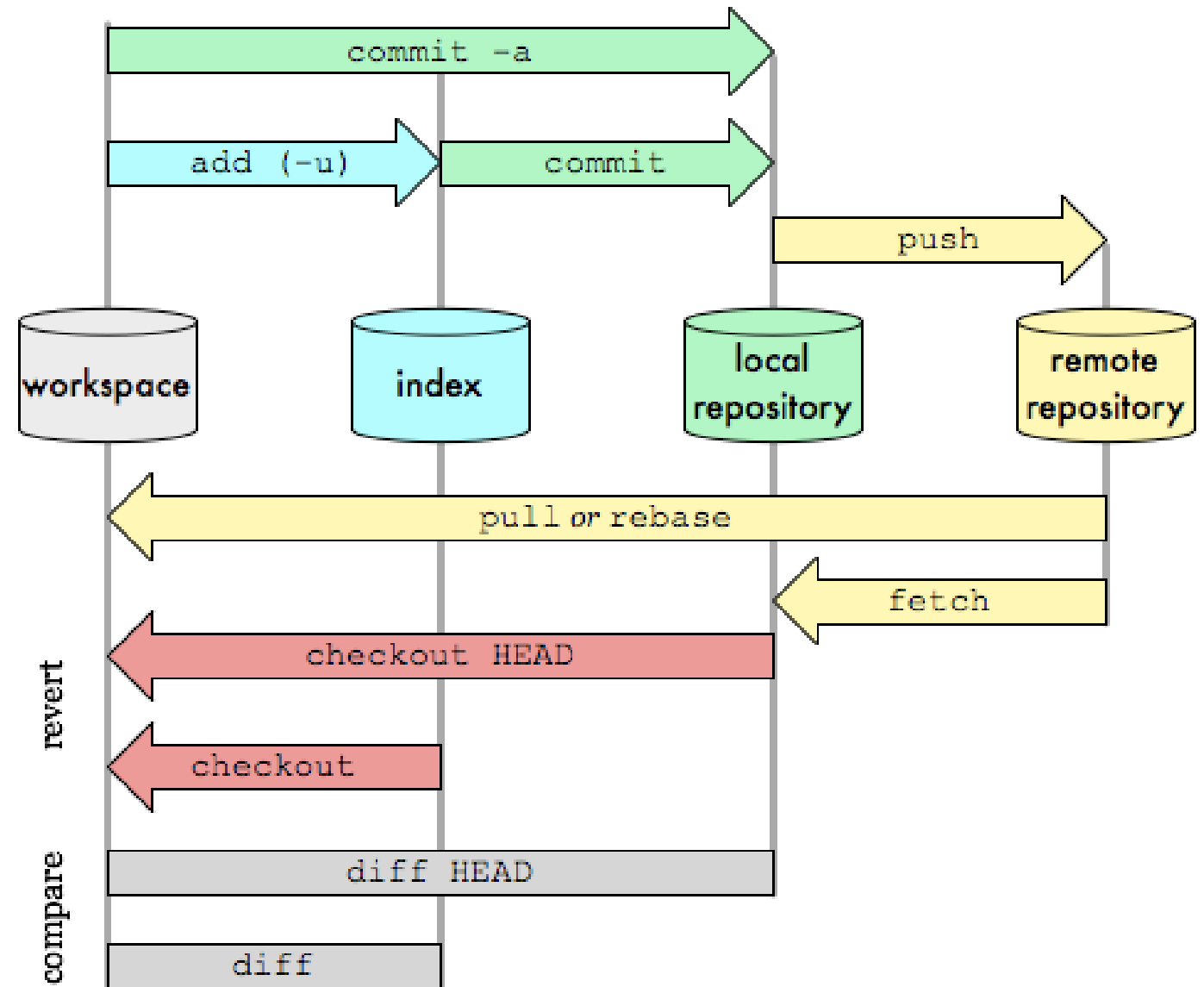
NOTE: These are all parts of your LOCAL git repo. You can also ship your local repo to be stored remotely (BitBucket, GitHub, etc)

# Git Workflow Detailed

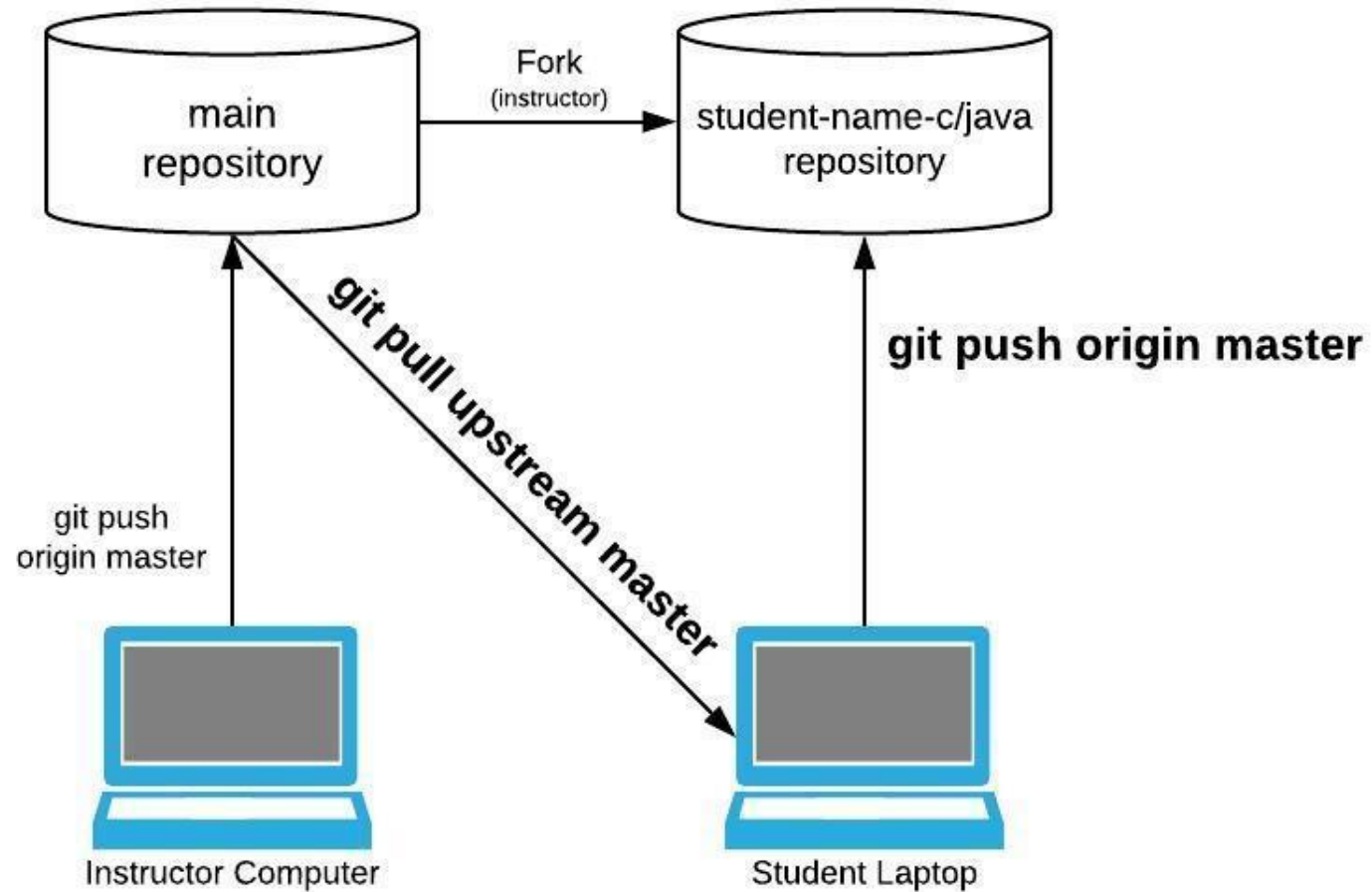
- **Workspace**: the files and folders in your git folder
- **Index**: “Staged” files, to be added / updated into your repository
- **Local**: all historical committed changes to all of your files, stored on your machine
- **Remote**: the shared, cloud version of the repo

## Git Data Transport Commands

<http://osteele.com>



# Git Repo Setup





# Your Most Important Git Commands

- Before class starts:

>>**git pull upstream master**

- Pulls slides, lecture code and exercises from c-main ("upstream") to your local repo, staging and working trees

- When you have done significant work on exercises

>>**git status**

- Shows what work you have done (in your working tree)

>>**git add -A**

- Move ALL your changes to the staging tree

>>**git commit -m "Complete module 1 day 1 exercises"**

- Move all the staged changes to your repository

>>**git push origin master**

- Push changes in your local repo to the remote repo "origin"

# Homework

- Student exercises
  - View the ReadMe
    - Open With Visual Studio Code
    - Ctrl-Shift-V to Preview
  - Do the exercises
  - Push your work
    - Git push (or git push origin master)
- Reading for tomorrow
  - [Student Book](#)
- Quiz posted mid-afternoon
  - Visit <http://www.Socrative.com>