

- Git is like using your camera to take a snapshot of your files at a specific point in time that you can magically go back to if terrible things happen. (Wayback Machine) The checkpoint!
- It exists so you can modify/change/break/improve your code, secure in the knowledge that you can not ruin your work too badly because you created save points along the way.
- Also a collaboration tool that allows different people to work on all the parts of a project at the same time.
  - A tool that protects you and others from you and others. Huh.
- Local Workflow: Tell Git to start tracking our files. Right click, open in Command Prompt. "git init"
  - Git init creates a repository in the folder you ran the command on. Often shortened to repo, this is a hidden location where file checkpoints will be stored. Show hidden items.
  - Exists in: Modified (new or have changes not yet saved by Git), Staged (current version of file, tagged to be included in next commit), and Committed (already safely stored by Git).
    - Git add neatly packs copy of specific file changes into a box, ready to be stored indefinitely.
- Git commit physically moves the box of copies into long-term storage, so describe what's in the box. Doesn't move or remove files in your working directory!
- Outcomes: Setup a Remote repository, learn how to Push our Local files to the Remote server, understand Branches and how to use them, understand how to Merge different branches, learn what a Merge Conflict is and how to resolve it.
- Remote Repositories: A remote repository is a copy of our project that is stored "in the cloud". It is where we backup our work and share it with others. It is accessible anywhere there is an internet connection.
  - Git push uploads all changes to the server. Do at the end of the day.
- Branches are smaller bits extending from a tree trunk. They represent different versions of our code. Branches allow us to work on code fixes and features without breaking what we already have (presumably) working. Fixes and new features should always start on a branch!
  - The master branch is the trunk of your code tree and should only contain clean code ready for deployment (use on the web).
  - Git branch <name> tells git to maintain a new copy of our code with the given name.
  - Git branch on its own will list the branches available and display an asterisk next to the one we are currently working on.
  - Git checkout <name> tells git to switch our working folder to the branch name specified.
    - Git merge <branch> combines the file changes in branch we name into our current working branch.
  - A merge conflict is when a file has changed in both of the branches you are trying to combine and git can't automatically determine what you want to keep.
    - Basically git is asking for help because it is confused.

- Git seems very useful for collaboration because of how each team member can edit at will and save when they feel that their code is perfect. The whole idea of branches works well here, if a bit hard to understand at first. Once you remember the checkouts and the branch names and all, it's not that bad. I'd say I'm stuck at a 2.9 right now. I have a good feel for it, but get myself in the land of hijinx more than I should, haha.
- Questions I didn't want to ask out loud? Umm, there's this, I suppose....?

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Git CMD
1 file changed, 10 insertions(+), 9 deletions(-)
H:\FlexBox>git branch
* master
  mobile
  tablet

H:\FlexBox>git merge mobile
Already up-to-date.

H:\FlexBox>git merge tablet
Auto-merging FlexBox CSS.css
CONFLICT (content): Merge conflict in FlexBox CSS.css
Automatic merge failed; fix conflicts and then commit the result.

H:\FlexBox>git merge tablet
error: merge is not possible because you have unmerged files.
hint: Fix them up in the work tree, and then use 'git add/rm <file>'
hint: as appropriate to mark resolution and make a commit.
fatal: Exiting because of an unresolved conflict.

H:\FlexBox>git add/rm <FlexBox CSS.css>
The syntax of the command is incorrect.

H:\FlexBox>git branch
* master
  mobile
  tablet

H:\FlexBox>git checkout tablet
FlexBox CSS.css: needs merge
error: you need to resolve your current index first

H:\FlexBox>git checkout mobile
FlexBox CSS.css: needs merge
error: you need to resolve your current index first

H:\FlexBox>git merge mobile
error: merge is not possible because you have unmerged files.
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H:\FlexBox>

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- Best part of Thanksgiving Break? Probably the freedom from History and Math homework, as well as getting to have more time with personal affairs. Also the food, amazing as always!