

Lab 8: Project Management

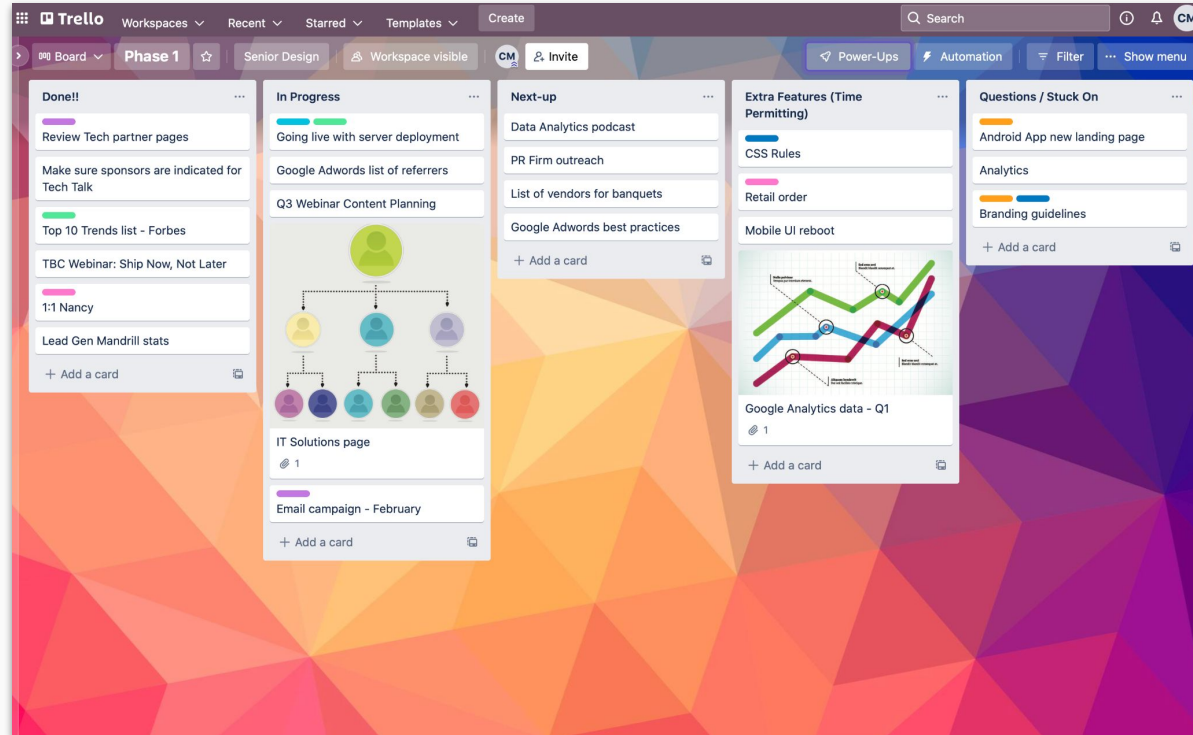
GW CS 2541: Database Systems and Team Projects - 2022

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Project Management: Trello

- Trello is a great tool for managing and assigning tasks!
- Your team must use Trello to plan and allocate work
- Add ALL instructors so they can view progress



Git Commands

Branches

List existing branches

```
git branch -a
```

Make a new branch & switch to it

```
git checkout -b new_branch
```

Switch to main branch

```
git checkout main
```

View branch's staged & unstaged changes

```
git status
```

Updating

Get latest version from parent branch

```
git pull
```

Get latest version from different branch

```
git pull origin main
```

What is origin?
What is main?

Stage, Commit, Push changes to Github

```
git add -A
```

```
git commit -m "commit msg"
```

```
git push origin branch-name
```

Git Shortcuts

Stage ALL files and commit

```
git commit -a -m "message"
```

Un-add all files

```
git reset
```

Un-add a file

```
git reset <file-name>
```

Revert a commit

```
git reset --soft HEAD~1
```

What does this notation mean?

Store local changes that have not been committed

```
git stash
```

Retrieve local changes from stash

```
git stash pop
```

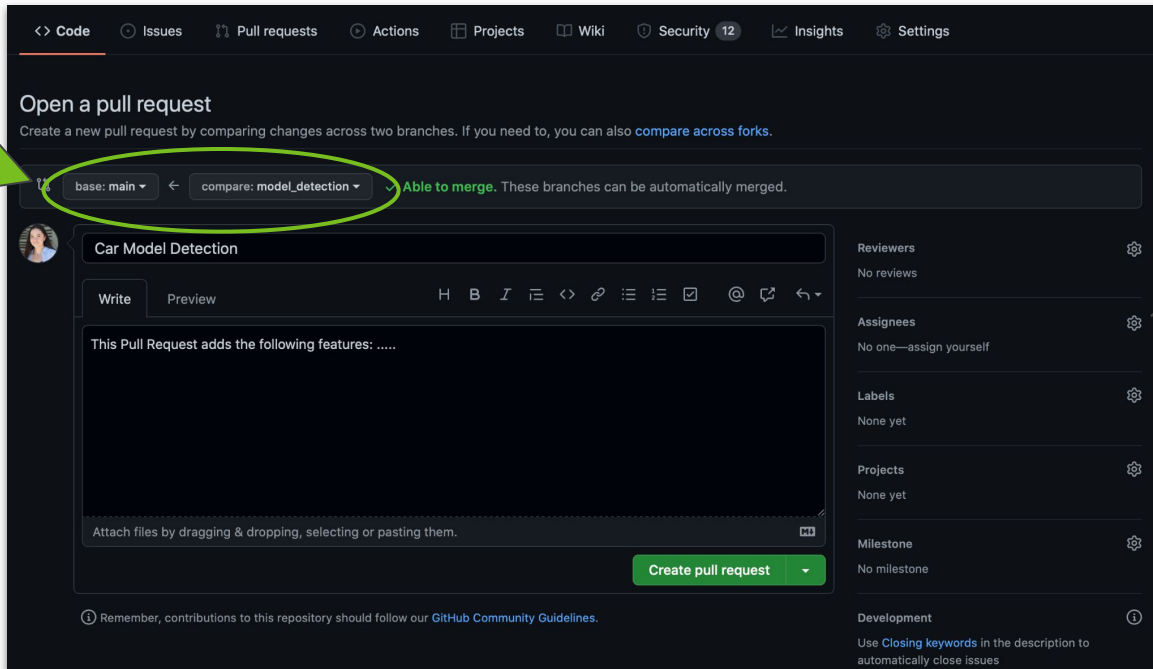
What data structure does this resemble?

And MUCH more... https://git-scm.com/docs/git#_git_commands

Git Best Practices

- Never commit changes directly to the main branch! Make changes on a different branch, make a **pull request** from your branch to the main branch, and once approved merge your branch to main

Select what branch you want to merge into main

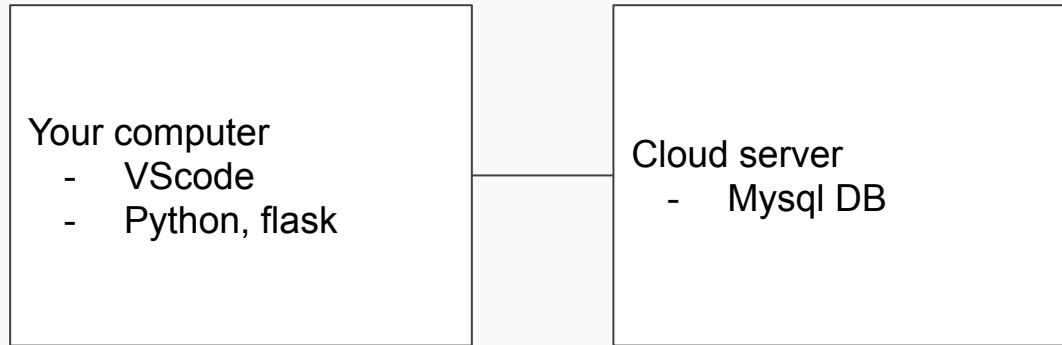


Assign your teammates as reviewers

Development Environment

- Getting started with Visual Studio Code [Guide](#)
 - Installation steps, setting up LiveShare
- VS Code's Flask [Tutorial](#)
- Extensions to install:
 - LiveShare, Python, MySQL, Git Project Manager

Testing/Deployment Environment



Cloud server will be ready after spring break

Can start creating schema now in sqlite replit

Group Work Environment

Rules to make a good group environment:

- Have a communication plan
- Let all voices be heard and be respectful
- Help each other
- Don't do too little... don't do too much
- Talk with me if you have issues
 - Email or anonymous form we will be sharing

Demo!

Phase 1 Timeline

Week	Mentor Status Check	Recommended Milestones
1 (March 6 - March 12)	March 9	Read specs, completed Lab 8, defined & distributed tasks among team, begin ER Diagram
2 (March 13 - March 19)	None (Spring Break)	Completed ER Diagram, SQL script for setting up db, login/logout functionality
3 (March 20 - March 26)	March 23	Progress on functionality (may lack styling or interaction between components)
4 (March 27 - April 2)	March 30 : Preliminary Demo	Most major functionality should be complete; Minimal bugs / missing features
5 (April 3 - April 6)	April 6 : Final Demo	Full working project!

Activity

1. Accept the Github assignment for Phase 1:
<https://classroom.github.com/a/Zu4anc6u>
 - a. One team member create a new team and the other team members join
2. Clone the repository to your local computer
3. Discuss the below items. Each team member create a new branch and make a pull request adding a section in README.md about the following:
 - a. branch **team_rules**: Describe the expectations and rules for your team members (i.e. “Group members will respond within 48 hours”, “All work will be agreed upon and distributed evenly”)
 - b. branch **project_planning**: Describe what tools your team will use for communication and planning (Google Calendar, Trello, etc.). Provide a link to your project board.
 - c. branch **code_review_process** : Describe the code review process your team will follow (i.e. “All pull requests must be approved by 2 other team members before merging”)
4. Review the pull requests and merge all 3 branches to `main`
5. Begin working on your project board and reading through the project specs!

Trello Setup (one student follow these steps)

Create an account on Trello.com

Create a workspace

- Name: "CS2541"
- Type: Engineering/IT
- Invite all team members and instructors by email

Create a new board

- Title: based on your component (e.g. "REGS-1" or "ADS-3")

Inside the board, create lists:

- To Do, In Progress, Code Review, Done, Notes

Start adding cards!

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