

Lab 8: Project Management

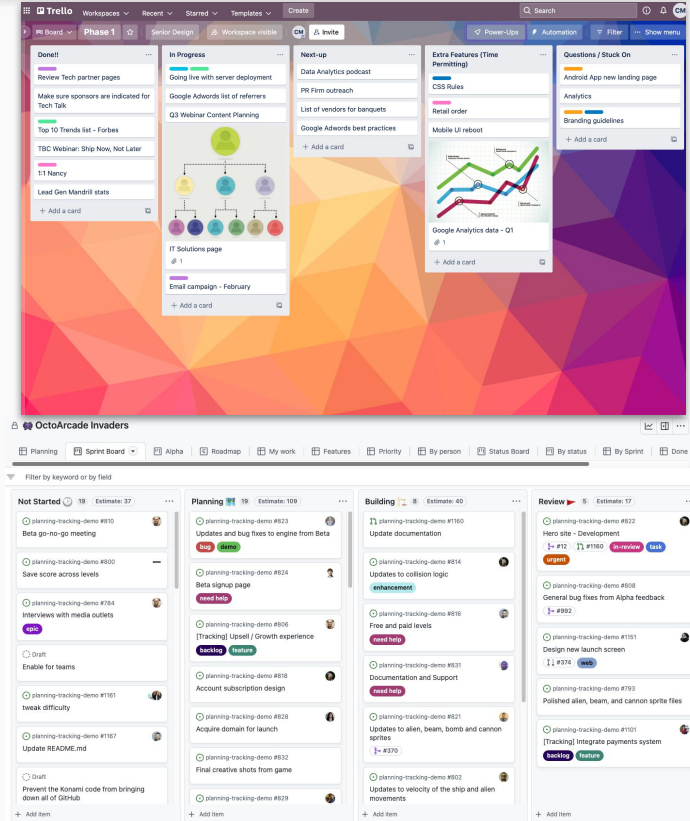
GW CS 2541: Database Systems and Team Projects - 2024

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Project Management: Kanban Boards

- Kanban boards are a great tool for managing and assigning tasks!
- Your team must use either Trello or Github Projects to plan and allocate work



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

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#).

base: main ← compare: model_detection ✓ Able to merge. These branches can be automatically merged.

Car Model Detection

Write Preview

This Pull Request adds the following features:

Attach files by dragging & dropping, selecting or pasting them.

Create pull request

Remember, contributions to this repository should follow our [GitHub Community Guidelines](#).

Reviewers
No reviews

Assignees
No one—assign yourself

Labels
None yet

Projects
None yet

Milestone
No milestone

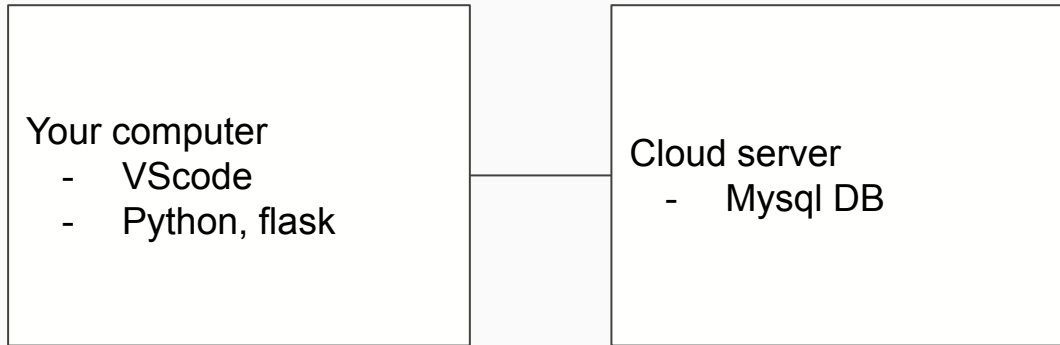
Development
Use **Closing keywords** in the description to automatically close issues

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 setup next week

Can start creating schema now in sqlite

Group Work Environment

Some rules to make a good group environment:

- Have a communication plan (we recommend the setup discord channel)
- Let all voices be heard and be respectful
- Help each other
- Don't do too little... don't do too much
- Talk with the professor if you have issues

Demo!

Phase 1 Timeline

Week	Status Check	Recommended Milestones
1 (March 18- March 24)	March 18	Read specs, defined & distributed tasks among team, complete ER Diagram
2 (March 25 - March 31)	March 27	SQL script for setting up db, login/logout functionality Progress on functionality (may lack styling or interaction between components)
3 (April 15 - April 21)	April 3 : Preliminary Demo	Most major functionality should be complete; Minimal bugs / missing features
4 (April 22 - April 26)	April 10 : Final Demo	Full working project!

Activity

1. Accept the Github assignment for Phase 1:
 - 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!

Kanban Boards Setup (one student follow the steps)

Trello: Create an account ->Create a workspace -> Create a board

Github: Navigate to your team's github repository->projects-> link a project
->Create a new project -> Click on view all -> Choose a Kanban Board

- Name it based on your team's name
- Invite all team members, your mentor, and the professor to your board if they are not apart of it already

Inside the board, make sure you have these columns:

- To Do, In Progress, Code Review, Done

Start adding items!

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