

Over the course of this semester we attempted to use a wide range of software development methods and tools. Some of the methods we used included pair programming, daily (weekly) standup meetings, and an agile development methodology. Additionally, we successfully used version control (Github), databases (MySQL/SQLite), project management boards (Trello) and team chat/collaboration tools (Slack/Google Drive).

## **METHODS**

### Pair Programming:

Our loose interpretation of pair programming was completing the bulk of our features in person through the second half of the course. After  $\frac{3}{4}$  of the group confronted the challenge of learning the Django framework, we were able to convey ideas and features as well as understand their feasibility. During our in person meetups we would all jump into the project, test features and brainstorm where to go next. After that we were able to sit with Troy as he implemented features alongside the discussion and tests.

### Weekly Standup Meetings:

Weekly standup meetings were the most useful part of our projects. In person we wound up pivoting our project idea, sorting out and prioritizing features, teaching one another about concepts and feature implementation. Specifically we dramatically narrowed the scope of our project in the second half of the semester and made the decision to cut the hassles of MySQL out of the the project entirely.

### Agile Methodology:

Because of a general lack of direction in our project, an Agile methodology was really the only choice. We were continuously revising our project goals in order to adapt to the timeframe and milestone requirements. By the end we had a number of features implemented such as the admin panel, class and meetup lists and homepage that came through revisions and sprints in the project lifecycle.

## **TOOLS**

### Github:

Github was our go to for version control. I think about halfway through the semester we figured out the correct way to use it and everyone was making pushes successfully. On the downside we struggled with merge conflicts and the correct way to use branches throughout the semester. The most specific challenge that we had to steer away from was locking problems with the MySQL database that we started with. After we determined that we couldn't recover the database we chose to go to SQLite built in to Django. We never determined if this was a problem with MySQL or the way we had been version controlling the changes.

### MySQL:

As previously stated, we ran into administration issues with MySQL that we never were able to sort out. We solved this issue by moving to SQLite and never saw these issues again.

Trello:

We immediately saw the merit in using a tool like Trello and went in headfirst in the earliest weeks of the project. What we found after a month or so was that the board was just overhead for the team and we worked best in person to get requirements completed and sorted out. The same can be said for Agile poker. Because Troy was the main developer we were able to sort out the feasibility of Tasks real time as ideas came up. I believe that Trello would have had a more prominent role for our team had we had a more defined project concept from the beginning.

Slack/Google Drive:

As we sorted through milestone and project requirements, Slack and Google Drive became the prominent tools we used for remote collaboration. Slack was used daily for discussing project visions, conflicts and scheduling while Google Drive became our go to resource for developing powerpoints and documents related to the project.