

Bonsai Buddy

- Group

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- Tools



- GitHub

- Web-based hosting service for version control.
- 5 Stars

- Advantages

- GitHub was very useful when it came to merging our conflicts together and having one location with all of our files.

- Disadvantages

- If we were not committing/pulling constantly, it was difficult to keep up with where changes were made.



- Slack

- Cloud-based set of team collaboration tools and services.
- 4 Stars

- Advantages

- Slack was very useful when it came to communicating with one another. Or when we separated chats from front-end and back-end.

- Disadvantages

- If you were not constantly checking your computer or phone notifications, it would be hard to respond unlike a text.



- Heroku
 - Cloud platform as a service supporting multiple programming languages.
 - 5 Stars
 - Advantages
 - We found Heroku allowed us to easily deploy our app using our Git repository.
 - Disadvantages
 - Commands are not intuitive, initial use is slow and frustrating.



- ExpressJS
 - Web-application framework for Node.js as a free and open source.
 - 3 Stars
 - Advantages
 - A benefit was that it was NodeJS based.
 - Disadvantages
 - We found it difficult to initially backup and found it difficult to use in the beginning, especially as all of us coming in at difference experience levels.



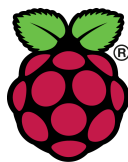
- Visual Studio Code
 - Source-code editor developed by Microsoft.
 - 5 Stars
 - Advantages
 - We found VCS lightweight, great support and contains useful extensions.
 - Disadvantages
 - Limited in functionality without plugins.



- Atom
 - Free and open-source text and source code editor developed by GitHub.
 - 3 Stars
 - Advantages
 - A few of us used Atom as our main editor and enjoyed working in it.
 - Disadvantages
 - We found it difficult to work with Jade in this program than it would have been with others.



- Sublime
 - Light-weight Text Editor
 - 5 Stars
 - Advantages
 - Sublime was easy-to-use text editor, easy to edit jade files and easy to download syntax to jade files.
 - Disadvantages
 - Free to use, but pop up appears during start-up to recommend using paid version.



- Raspberry Pi 3
 - Single-board computer with wireless LAN and Bluetooth connectivity.
 - 5 Stars
 - Advantages
 - Linux based OS and built to run python.
 - Disadvantages
 - We found it to be slow frequently and the initial integration with arduino is difficult.



- Arduino Nano
 - MicroController with 5v5 and 3v3 power pins, Digital IO pins and Analog pins.
 - 5 Stars
 - Advantages
 - They were cheap to purchase and C based language.
 - Disadvantages
 - The supplied power was not enough for all the sensors, had to supplement with another power source.



- pgAdmin 4
 - GUI for pgSQL database management
 - 5 Stars
 - Advantages
 - Found it easy to use and a well organized UI
 - Disadvantages
 - Initial connection to Heroku was tedious

- Expected Tools



- Trello
 - Web-based list making application.
 - 3 Stars
 - Advantages
 - Trello was an awesome tool early on for dividing the group up by tasks we needed to accomplish in each sprint.
 - Disadvantages
 - We found it difficult deeper into the project to use and keep up with as we ran into issues and checkpoints.



- PassportJS

- Login middleware for NodeJS applications
- 1 Star
 - Advantages
 - It was beneficial being NodeJS Based
 - Disadvantages
 - It did not serialize user into the session
 - This is the one thing we needed it to do



- Mocha
 - Testing Framework for NodeJS Application
 - 4 Stars
 - Advantages
 - Easy to setup and get going
 - Disadvantages
 - Some middleware within Express are difficult to test (PassportJs for example)
- Project Management Methods Used
 - Iterative
 - Waterfall
 - Agile
 - Create features during small intervals and release the new feature at the end of each “sprint”. We soon abandoned this strategy.
 - 3 Stars
 - Advantages
 - We liked the idea of developing our application feature by feature.
 - Disadvantages
 - The reality of completing a ticket everyday is difficult being a full-time student and some of us working.
 - Peer Code Review
 - Before making a commit to main branch, other members of the team must verify that the code works and there are no errors.
 - 4 Stars
 - Advantages

- Ensure that code being pushed to important branches
 - Disadvantages
 - Slows down workflow
- Challenges
 - We found it difficult to work Jade
 - Working with people who have different levels of experience and expertise
 - Settling Merge Conflicts within each other.
 - How to divide equal work up between 6 people
 - Communication can always improve
 - Time Management
- Demo