



BrandSense

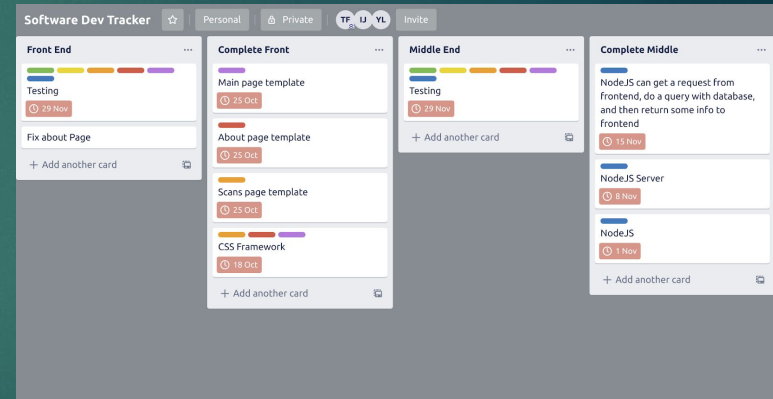
Team members

- Tyler Faragallah
- Ian Jorquera
- Jeremy Smolens
- Kevin Sullivan
- Robert Meikle
- Yu Li

Used Tools

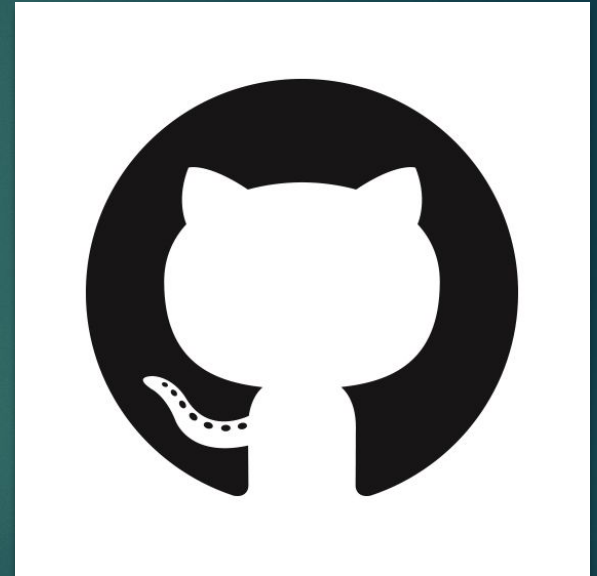
Project Tracker -- Trello

- ▶ cloud-based project management app
- ▶ Help individuals and teams collaborate better and keep their projects organized
- ▶ Benefits:
 - ▶ Minimizing confusion on organizing tasks and tracking progress,
 - ▶ Allowing entire teams to participate in discussions, send notes, share files and comment on individual tasks,
 - ▶ Uploading files straight from Google Drive or Dropbox accounts.
- ▶ Pitfall:
 - ▶ limited flexibility in arranging cards and lists
 - ▶ relationship hierarchies between tasks and projects aren't supported.
- ▶ Rating: ★ ★ ★ ★ ★



► VCS repository -- GitHub

- A development platform built for developers
- Benefits:
 - Easy to contribute open source projects
 - Easy to track changes of a repository
- Pitfalls:
 - Does not support commits across multiple branches or tags
 - Less preferred for handling extremely large files
- Rating: ★ ★ ★ ★ ★



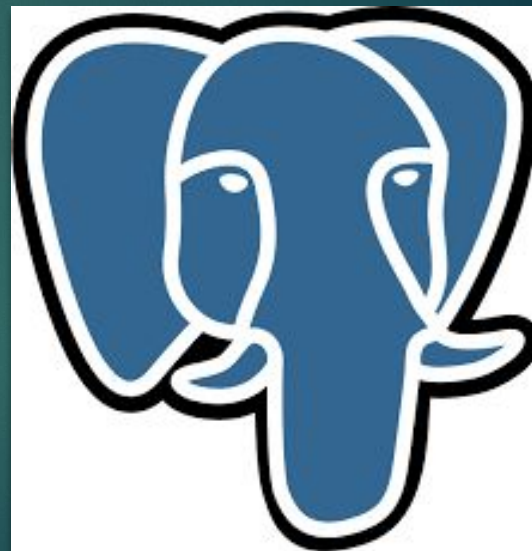
► Communication -- Slack

- A communication tool built for small businesses
- Benefits:
 - Free and easy to use
 - Topic based channels to guide discussion
- Pitfalls:
 - Questionable notification consistency
 - Not free for more than 10,000 messages
- Rating: ★ ★ ★ ★ ☆



► Database -- PostgreSQL

- A powerful, open source object-relational database system
- Benefits:
 - Easy to use
 - Open source
 - Supports ACID(i.e. Atomicity, Consistency, Isolation, Durability)
- Pitfalls:
 - The architecture of PostgreSQL creates separate service for every client, it turns into a lot of memory utilization
 - Performance of PostgreSQL is not very good
- Rating: ★ ★ ★ ★ ★



- ▶ Testing tool - unit tests written by ourselves
 - ▶ Benefits:
 - ▶ Makes process agile
 - ▶ Find bug early
 - ▶ Reduce cost of debugging
 - ▶ Pitfalls:
 - ▶ Cannot catch each bug in an application
 - ▶ Limit to the number of scenarios and test data
 - ▶ Must validate our testing units as well
 - ▶ Rating: ★ ★ ★ ★ ★



► Deployment Environment -- Heroku

- A platform as a service(PaaS) that enables developers to build, run, and operate applications entirely in the cloud.
- Benefits:
 - Easy set up
 - Great plugin support for third party apps
- Pitfalls:
 - Advanced features such as static IP addresses and SSH connections are not fleshed out yet
- Rating: ★ ★ ★ ★ ★



- ▶ IDE -- PyCharm
 - ▶ Benefits:
 - ▶ Lots of plugins
 - ▶ Built-in terminal
 - ▶ Comes with the usual IDE stuff like autocomplete and highlighting
 - ▶ Pitfalls
 - ▶ Somewhat bulky
 - ▶ Limited to python and related language
 - ▶ Rating: ★ ★ ★ ★ ★



- ▶ Text Editor – Sublime
 - ▶ Benefits:
 - ▶ Free
 - ▶ Pitfalls:
 - ▶ Need to install plugins by ourselves
 - ▶ Rating: ★ ★ ★ ★ ☆



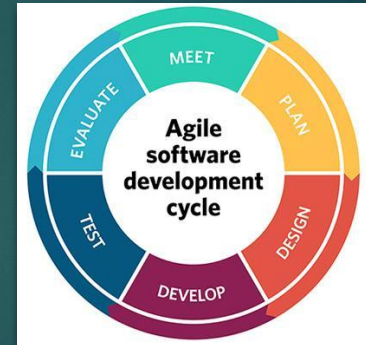
► Framework – Node.js

- An open-source, cross-platform, JavaScript runtime environment.
- Benefits:
 - Easy to learn
 - Scalability
- Pitfalls:
 - Unstable
 - Asynchronous programming model
- Rating: ★ ★ ★ ★ ★



Methodology – Agile Software Development

- ▶ Software development methodologies centered round the idea of iterative development(meet, plan, design, develop, test, evaluate)
- ▶ Benefits:
 - ▶ More flexibility for changes
 - ▶ Increased transparency
 - ▶ Increased Efficiency
- ▶ Pitfalls:
 - ▶ Less predictability
 - ▶ Lack of consistent leadership



Encountered Challenges

1. Storing Images in Postgres Database

- ▶ In the beginning stages of product development, our team struggled with finding a way to properly store images in postgres.
- ▶ In order to overcome this, we decided to store the images in a bit string which enabled us to easily store and access these images within the database.

2. Allowing User Login and Verification

- ▶ Got an initial test login system working in a separate environment pretty quickly
- ▶ Had a rough time integrating it into our mostly finished product at the end of the development cycle

3. Learning and Using GIT

- ▶ Had some setbacks early on from learning pains with Git. The development process sped up significantly after we got the hang of this.

Project Demo