

Algebreezy

December 1st, 2015

Team Algebreezy

Members:

- Carl Eadler (Product Owner)
- Zachary Ward
- Susie Kim
- Kenneth Lee
- Bryant Ng

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Algebreezy is a web application that aims to make algebraic manipulations easier to manage.

It aims to help students by showing them what manipulations are available and valid, and it aims to help experts by preventing them from making mistakes.

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Sprint 1:

- Users should be able to access the server so that they can use the service.
- Users should be able to input valid algebraic equations so they have a place to start their manipulations.
- Users should be able to see the expressions rendered in MathJax so that the expression they entered is clear

Sprint 2:

- Guests should be able to register accounts so that they can maintain a profile with the service.
- Members should be able to save their work so that their work isn't lost between sessions.

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Sprint 2 continued:

- Users should be able to apply basic operations to their equations and expressions so that they can manipulate their equations

Sprint 3:

- Users should be able to fully manipulate an equation so that they can use the service to its full potential
- Users should be able to add comments between operations steps so that they can clarify or explain why they chose to do an operation

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Stretch Goals:

- Output equations as LATEX encoded text
- Automatically apply simple reductions (fractions, exponents)
- Identify and combine like terms
- Allow users to import well-known identities, or equations from other users
- Implement a graphing system
 - Possibly allow users to download graphs
 - Make graphs interactive by binding variables to the mouse
- Implement some trigonometric identities
- Implement some calculus, maybe linear algebra
- Create a repository of proofs (Similar to ProofWiki)
 - Add ranking system to promote well-written proofs
- Make classrooms/groups

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Challenges:

- Installing and Navigating through Ruby on Rails

Accomplishments:

- All the main, high-level user stories were completed
- Hosted the product online

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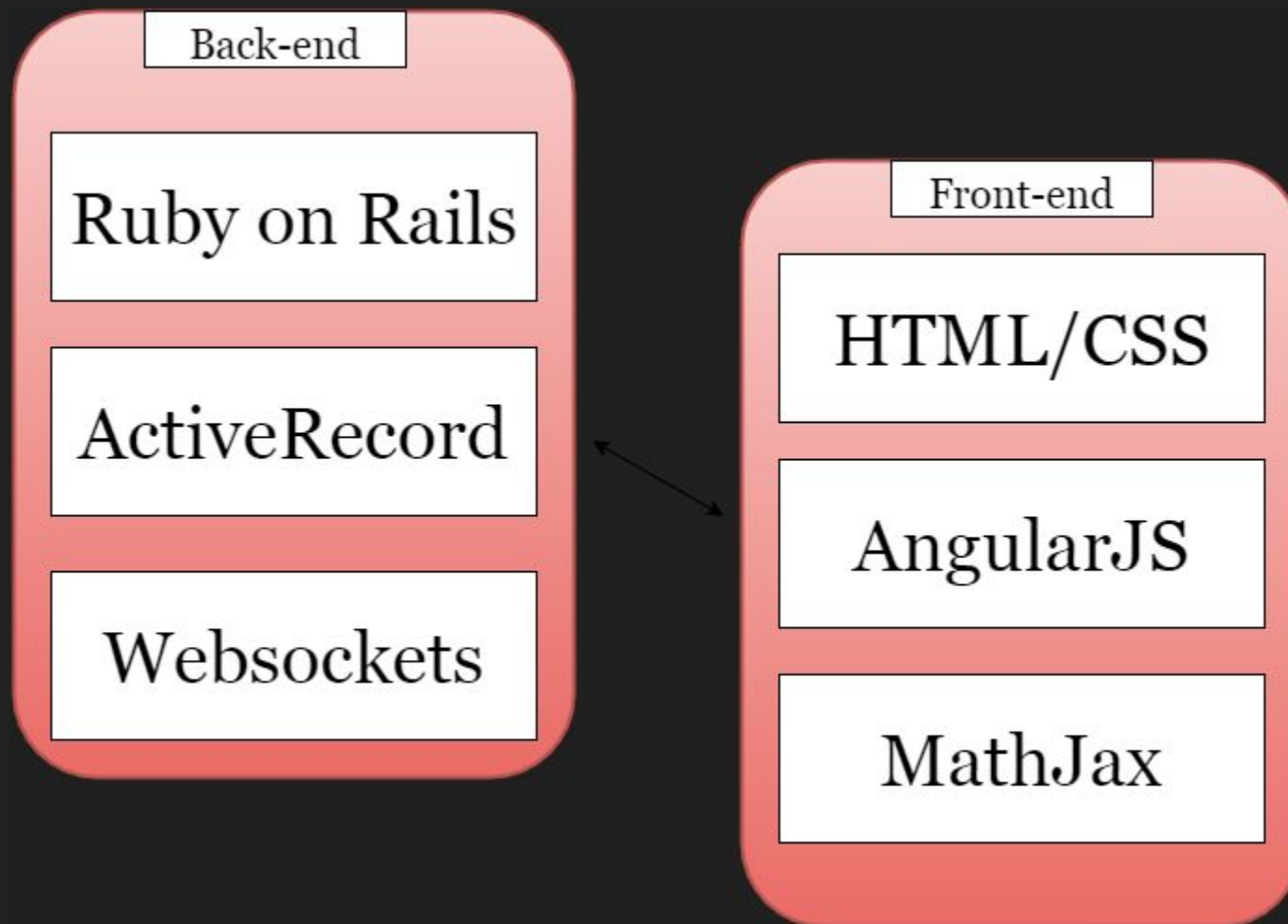
Challenges:

- Finding time to work on the project in person, as a group

Accomplishments:

- Completing all tasks written on Scrum Board

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- Working in a team, toward a common goal
- Working in an agile environment that promoted new ideas
- Learning multiple different technologies and frameworks for one class
- Seeing constant improvements
- Having flexible requirements

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- Very little guidance
- Project felt very deadline-oriented

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- Updating the scrum board every meeting
- Pair Programming
- Three short weekday meetings with One long weekend meeting
- Meeting in BE302

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- Achieved most of the goals we set out to achieve in the 8 week period
- Lots of things that could be added
- Had a good experience with SCRUM processes
- More comfortable with picking up new technologies