

# Algebreezy

October 5th, 2015

## Team Algebreezy

### Members:

- Carl Eadler (Product Owner)
- Zachary Ward
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# Algebreezy

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:

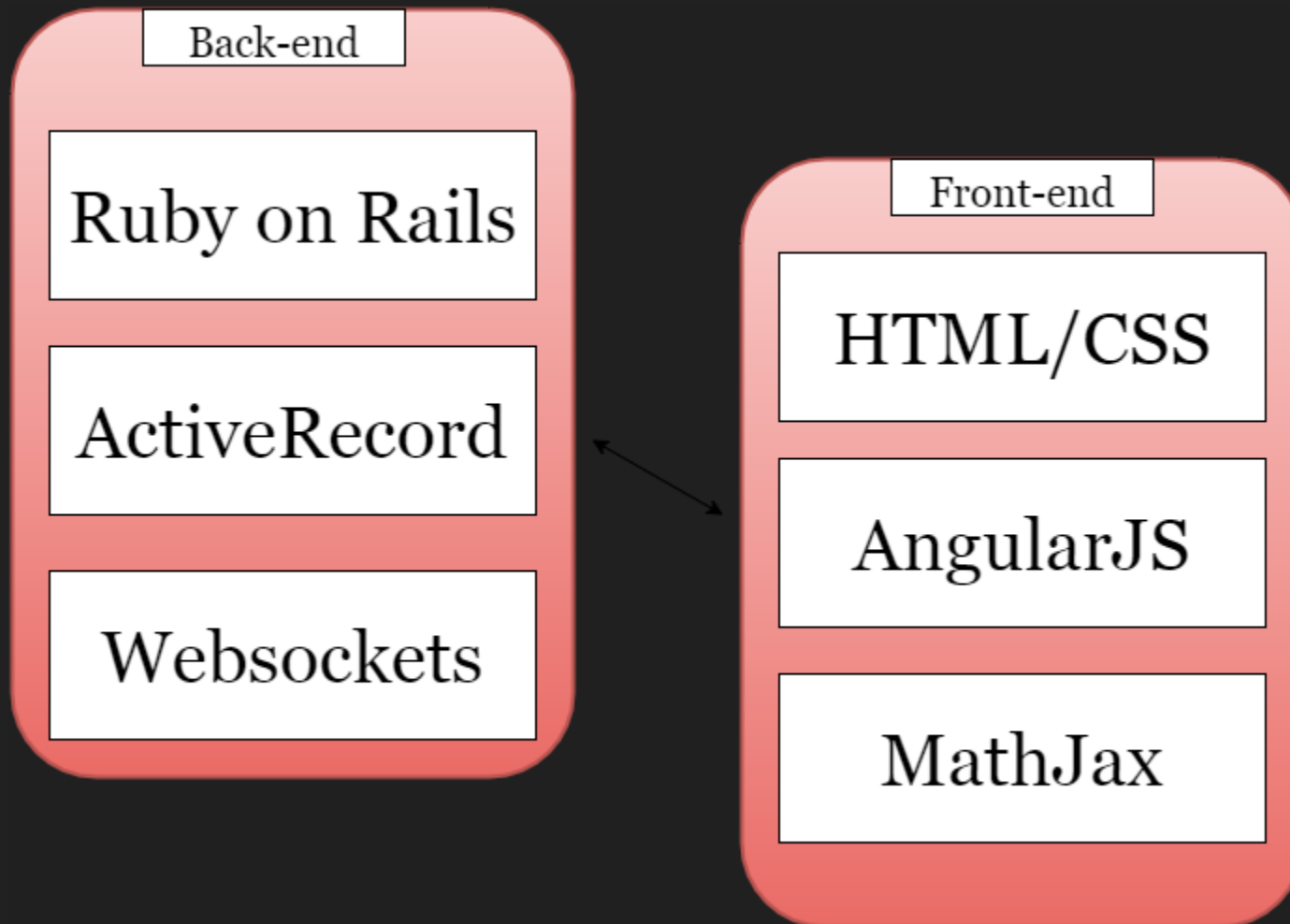
- Users should be able to fully manipulate an equation so that they can use the service to its full potential
- Users should be able to add comments between operations steps so that they can clarify or explain why they chose to do an operation

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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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## Algebreezy

- Working in many unfamiliar frameworks
- Not sure how to integrate user interaction
- Finding a time to meet multiple times a week and get work done together