

Product name: Algebreezy

Team name: Algebreezy

Release name: Algebreezy Final

Release date: 10/22/2015

Revision number & Revision date: 1 & 10/9/2015

- **High Level Goals:**

- 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
- Users should be able to access the server so that they can use the service
- 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
- Users should be able to apply basic operations to their equations and expressions so that they can manipulate their equations
- 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
- Users should be able to log into a website to access the application instead of having to download it and run it on a local server so that the service is easy to find and use

- **User Stories for Release:**

- Sprint I
 - (5 Story Points) As a user, I want to be able to visit the Algebreezy website instead of having to download a computer program, to save space on my computer
 - (10 Story Points) As a user, I want to be able to type algebraic equations, so that I can see them visually and manipulate them
 - (5 Story Points) As a user, I would like to be able to see my equations rendered in MathJax, so that I can clearly understand them.
- Sprint II
 - (10 Story Points) As a user, I want to be able to create an account, so that I can maintain my profile using Algebreezy
 - (15 Story Points) As a user, I want to be able to save my work, so that it isn't lost in between sessions.
 - (25 Story Points) As a user, I would like to be able to apply basic (+, -, /, *) operations to my equations and expressions, so that I can manipulate and simplify them
- Sprint III
 - (30 Story Points) As a user, I would like to be able to apply complex (Inverse, Adding by zero creatively, etc.) operations to my equations and expressions, so that I can manipulate and simplify them

- (45 Story Points) As a user, I would like to be able to comment in between equations so that I can refer back to the comments to see why I made a decision at a certain time

- **Product Backlog:**

- As a gamer (and student), I want to fulfill achievements to motivate myself to keep working
- As a Help Desk Technician, I want a forum system to be implemented so that users and staff can interact in an organized fashion
- As a developer, I want to enable the user to have a better understanding of why they aren't allowed to make certain choices with equations
- As a teacher/professor, I want to be able to have a classroom where I can invite student accounts so that I can assign them work and check their progress digitally
- As a student, I want a page that explains all of these crazy rules about algebra and why things are the way they are so I'm not so damn confused and frustrated
- As a tutor, I want to be able to directly search for a profile/username and be able to invite them into a private, shared scratch pad so we can work on problems together
- As a tutor, I want to be able to talk to my students using my microphone so we don't have to type everything out
- As a researcher, when I've found a solution to an equation, I want to be able to graph it so that I can visually see the results of my work
- As a user, when I click on a sub-tree of the parsed equation tree, I want all similar trees to be highlighted so that I can quickly see equal quantities
- As a user I want to be told when I am solving an equation incorrectly so that I learn from my mistakes
- As a tutor, I want to be able to let multiple students participate while teaching them in real time

- **Product Presentation:**

- See Algebreezy Presentation.pdf on <https://github.com/ceadler/algebreezy/tree/Info/Info>