

Math Path


$$E=mc^2$$

Mission Statement

- Math Paths goal is to enable students struggling in math to succeed.

Product Overview

We plan to provide a platform for teachers to share problems with students in an accessible manner.

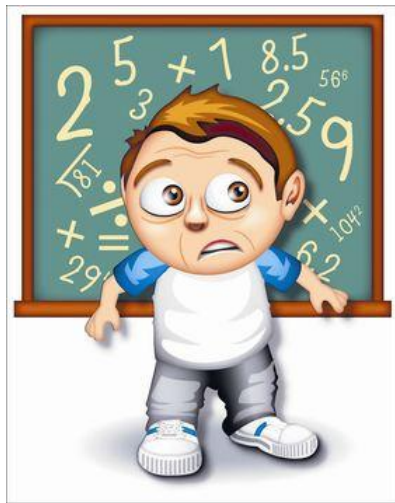
Ryan

Age: 11

Gender: Male

Bio:

Ryan struggles has dyscalculia and struggles to keep up in math. It is easy for him to mix up numbers and hard for him keep them in his working memory.



Math Path:

Because of Math Paths accessibility features, it is much easier for Ryan to follow along through our platform then through his teachers typical lectures. Math Path will read aloud the problems to him, to keep him from mixing up the numbers. It will also keep track of each step of the problem, so he doesn't have to keep as much information in his working memory. Math Path, helps Ryan to keep up in Math despite his disability.

Rachel

Age: 13

Gender: Female

Bio:

Rachel loves math. But lately, she has felt that the class is moving too fast for her. She needs more time to accept the core concepts before the class moves on.



Math Path:

Because of Math Path ability to allow students to move at their own pace, Rachel doesn't need to struggle to keep up. When she is confused about a concept she can always pause or replay the videos.

Riley

Age: 14

Gender: Male

Bio:

Riley is a bit of a class clown. Alone he can be a good student, but in groups he feels a need to be disruptive so that his peers view him as “cool”.



Math Path:

Because of Math Path separates Riley from his peers, he no longer acts out to impress others. This allows him to learn more about math, and grow an appreciation for the subject so that he doesn't act out in the classroom anymore.

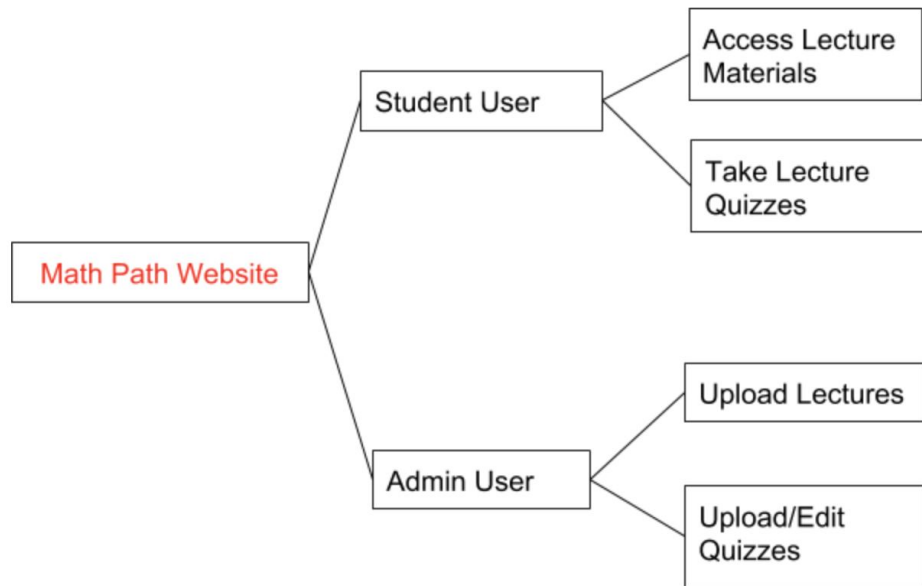
MVP

- Create web app that provides a structured lesson system that allows students to move on to new lessons after passing previous lesson's quiz
- Allow for 2 different forms of authentication (admin/student) with different permissions for each user
- admin permissions will include ability to post/view lectures/create quizzes for each lectures
- student permissions will include ability to view lectures/take quizzes

Stretch Goals

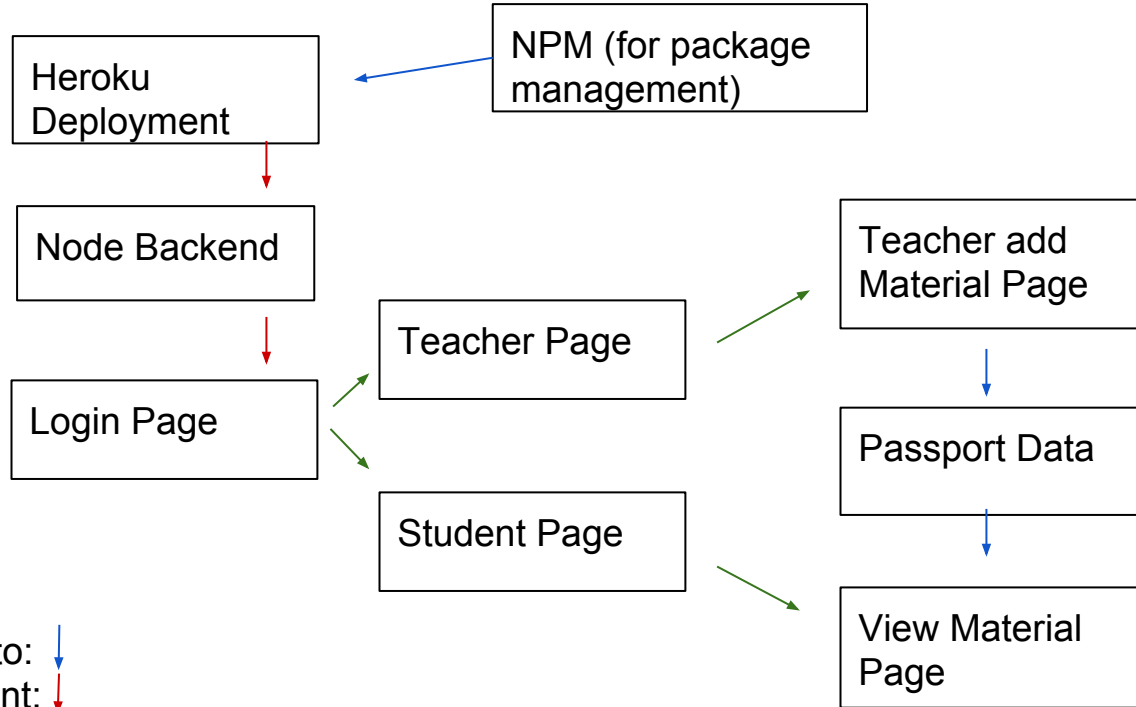
- Implement a chat function for students to chat with a math bot which will answer questions similar to the way Alexa would answer a math question
- Implement a mobile version of this web app

User Flow



Site hosted on Heroku, authentication handled by passport

Design Architecture



Technologies

-Heroku

Heroku will be used to manage deployment and testing.

-Node JS

Node js will be used for back end development

-Express

Express will be used as a framework for backend

-Passport

Passport will handle user auth and data storage.

-NPM

We are using npm as a package manager

Sprint 1 Plan

- Create User Stories
- Create architecture diagram
- Create barebone backend for web app
- Deploy alpha alpha version on Heroku (set up Heroku)