Problem Definition

The vast discipline of music can be sub-categorized into two domains: theory and practice. During music lessons, children pre-dominantly learn theory, leaving less time for practice with the instructor. Children are *told* to practice their instruments independently at home.

Children can play exercises at home but they primarily struggle relative pitch and perfect pitch detection. There are no free devices that exist to help verify that a music student is detecting a pitch right. There are multiple desktop applications that provide pitch detection but they are complex, dated and expensive.

The problem is children do not have the resources to practice these two essential skills, and owing to the complexity of manual, independent exercises, they neither have the motivation.

Solution

The solution is an interactive music practice website to motivate students to practice at home. We offer an interactive experience along with performance reports to give students incentive to continue to practice at home.

Product Backlog

Tasks	Date
Code signup page	30/05/2014
Create and interface db with signup page	02/06/2014
Create Account View Page	02/06/2014
Create Landing Page	04/06/2014
Create Games Page	09/06/2014
Enable Pitch Detection	18/06/2014
Code game 1	20/06/2014
Code game 2	24/06/2014
Code game 3	01/07/2014

Sprint Backlog: Assignment 1: Front End

Sprint	Hours
Page Layout Designs	1
Home page	
User registration page	
User profile/progress page	
Games page	

Navigation Bar	1
Code About Us Page Html and css formatting	2
Code Games Page html and css formatting	2
Code Home(Index) Page HTML/CSS formatting	5

Code Login Page
    HTML, CSS coding
    Bootstrapped forms layout
	5

Code Profile Page
    displays user progress for each game and
        user information(name, etc)
    html layout
    CSS positioning
    user progress graph displays:
        html/CSS
	5

Code Registration Page
    Jquery/JavaScripting for background
    rotating images
    Bootstrapped forms layout
    HTML/CSS layout
	2

Fix page resizing issues	10
Code Readme Page	1

Sprint Backlog: Assignment 2: Back End

Sprint	Hours
Link Database to Register page using MongoDB	6
Link Database to Login Page	3
Code Login Page	4
Code Game 1	5
Code Game 2	5
Code Game 3	5

Sprint Backlog: Assignment 3: Security, Scalability, Performance

Sprint	Hours
Ensure security in user's data	6
Encrypt user's password as they log in	6
Ensure users logging in are actual users	5
Make database scalable	7