**Rocket Math**

Team Members: Kelly Markaity, Samuel Arseneault, John Luu

**Project Overview**

This project is focused on the Common Core State Standards (CCSS) for mathematics for school age children from kindergarten through fifth grade. Our application is designed to approach mathematical problems that have been laid out by CCSS and integrate them with an interactive environment via iPad.  According to the standards of the CCSS content, students should know from memory all the sums of two one-digit numbers by the end of second grade. By third grade, students should know from memory all products of two one-digit numbers. Although there are current applications on the market that exercise students’ basic math skills, there isn’t application that constantly logs their progress and allows their teachers to view it.

**Project Purpose, Scope, Objective**

The goal of this project is to create an IOS application which will exercise the basic math skills of first grade students while constantly logging data. The data extrapolated from these students will then be sent to the teacher where they can assess their student’s current progress. This will allow the teacher to determine where their students are struggling and excelling.

This project will cover the full implementation of the front end. This is the side the first grade students will use. It will contain the levels which contain solvable math problems.

The project will also cover the full implementation of the back end. This is the side where the teacher will log into to view the progress of their students, and view or change settings on the IOS application.

**Team Organization (Roles and Responsibilities)**

Team lead: Samuel Arseneault

The team lead is responsible for organizing client meetings, team meetings, and following up with team members to ensure the team is synchronized. The team lead is also responsible for quality assurance.

Team members: Kelly Markaity, John Luu

Roles: each team member is required to work on all domains of this project, however domain leads will ultimately be responsible for their domain.

* Documentation: John Luu
* Front end: Kelly Markaity
* Back end: Samuel Arseneault
* Testing/Debugging: John Luu
* Architecture planning: Kelly Markaity
* Quality Assurance: Samuel Arseneault

**Problem Resolution Policies**

Our team will be using a three strike rule. A strike is considered absent work, poor quality of work, or poor communication. If a team member receives a strike, this means the rest of the team will have to make up the work the violating member did not deliver. Once a team member receives three strikes, we will inform the instructor and TA of the incident. If a team member is still uncooperative after three strikes, we will ask them to leave the team and will potentially have to drop the class.

**Project Plan (iterations, project schedule)**

Our team has scheduled weekly meetings with our client. Since our client is located in far proximity, most of our meetings will be held via Skype. The meetings will be held every Tuesday at 7:45pm.

Project introductory meeting: Saturday, January 24th

* Meet client for first time
* Understand scope of project
* Determine Technologies to be used

Requirements Meeting: Tuesday, February 3rd

* Gather requirements from client
* Understand specific functions, non-functions, and UI
* Prioritize functionality/nonfunctional, need/wants

Team Requirement Deadline: Tuesday February, 10th

* Team should have the requirements done 1 week ahead of schedule
* Have mentors review requirements document

Requirement Presentation: Tuesday February, 17th

* Present gathered requirements

Team First Prototype Deadline: Tuesday February, 24th

* Team should have the first prototype done 1 week ahead of schedule
* Have the front end submitted for acceptance on the Apple store
* Begin testing and creating test plan

First Prototype Deadline: Tuesday March, 3rd

* Have most of the front end completed
* Have back end laid out
* Have design specification done 1 week ahead of schedule

Design Specification Presentation: Tuesday March, 10th

* Present design specifications

Team Test Plan Deadline: Tuesday March, 17th

* Have the test plan done 1 week ahead of schedule
* Have mentors review test plan document

Test Plan Presentation: Tuesday March, 24th

* Present project test plan
* Have project mostly completed

Second Prototype Deadline: Tuesday March, 31st

* Have most of the project completed
* Present prototype

Final Project Presentation: Tuesday April, 21st

* Project must be completed before this date

**Configuration management plan**

Our team will be using a private repository on GitHub to manage our project, and for source control.

**Technologies**

* Objective C (front end)
* MySQL Database (backend)
* PHP (backend)
* HTML, JavaScript (backend/portal)