# Classroom+

-- A Multi-Language Interactive System to Boost Classroom Engagement in Developing Countries

CS 6460 – Intermediate Milestone 1 Report

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# 1 - Project Overview

In order to foster the classroom engagement and learning experience in developing countries, we proposed developing a multi-language application to use in classrooms so teachers can submit quizzes and questions while they are in the lecture. Those quizzes encourage every student to pay attention to lectures so they can participate and don't stay behind. We will achieve such interactive mechanism utilizing the devices that students already use in their daily lives and often within the classroom, mobile phones.
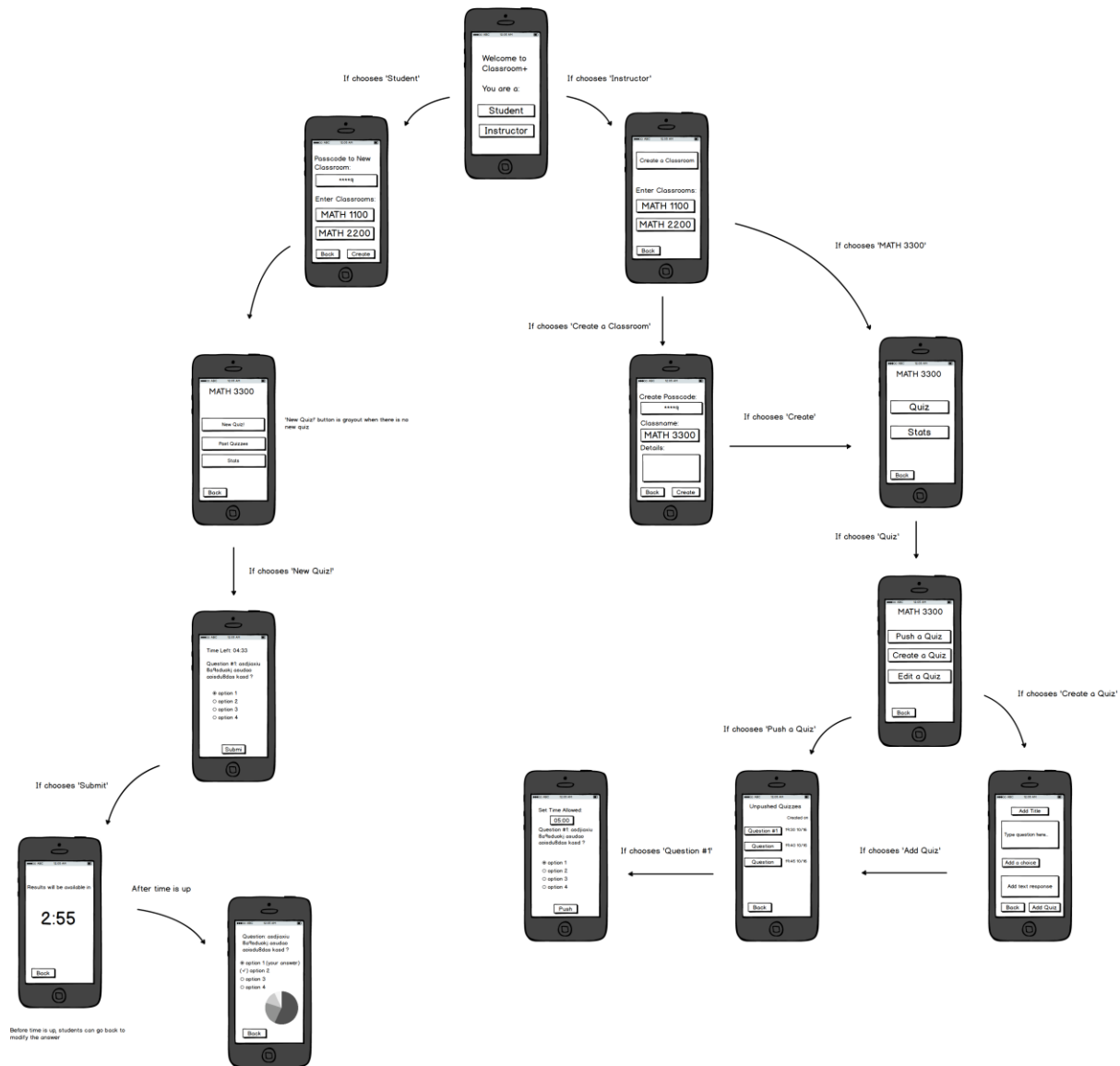
## 1.1 - Mockup

Figure 1: Mockup for Classroom Plus

# 2 - Deliverables

As we specified in our project proposal, the application is a lightweight web app (HTML5) that allows students to take quizzes and polls with no student's user required. Its backend, we build it in Python (Flask) as main backend end framework and the Google Cloud Platform as web hosting and data storage. The app will be straightforward and light enough for it to run on any mobile phone that supports HTML5 even in a slow connection. At the same time, it's simple to use, so teachers with low technical ability can implement it in their classrooms. For the milestone 1, we delivered the following features.

## 2.1 - Student / Teacher

Upon opening the app, the user will be asked if he/she is a student or instructor. Then based on the answer, the app will take the user through each process accordingly.
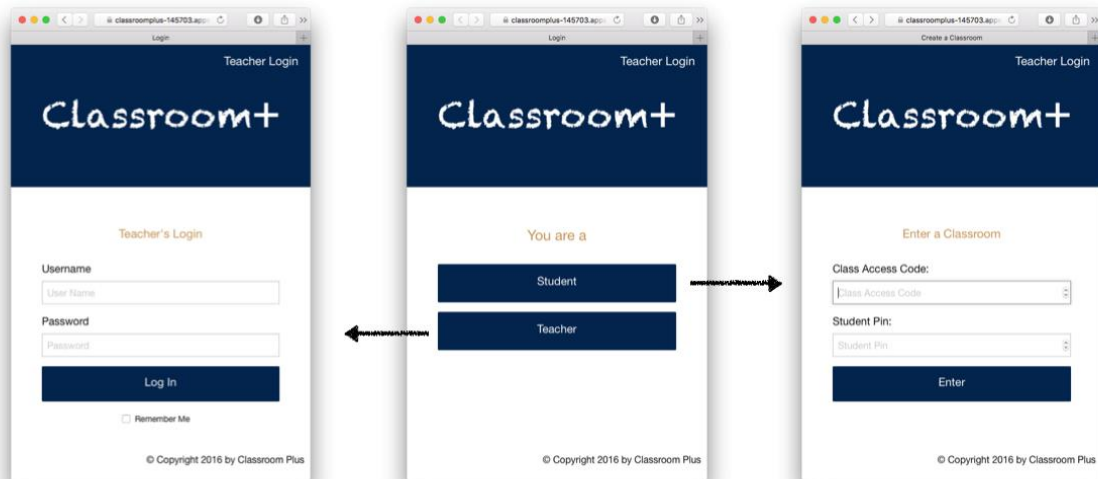


Figure 2: Identity Confirmation to Start Using the App

## 2.2 - Teacher Workflow

For users who choose "Teacher", they will be redirected to the page where a classroom can be created or entered. Upon creating the classroom, the teacher will create a list of students, and the system will generate a passcode for each student to enter the classroom. After a classroom is created, the teacher will be asked to create polls / quizzes which can be pushed to students later, as shown in the figure below.
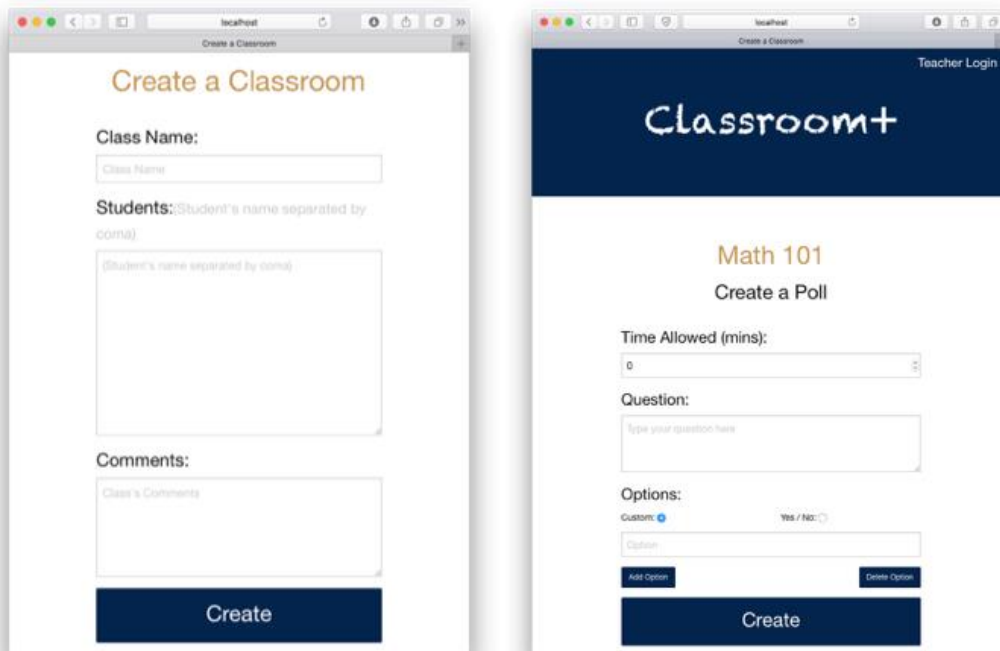
Figure 3: Teacher Creates a Class & Creates a Poll

## 2.3 - Student Workflow

Students who entered a classroom will receive polls pushed from the teacher, as shown in the figure below.
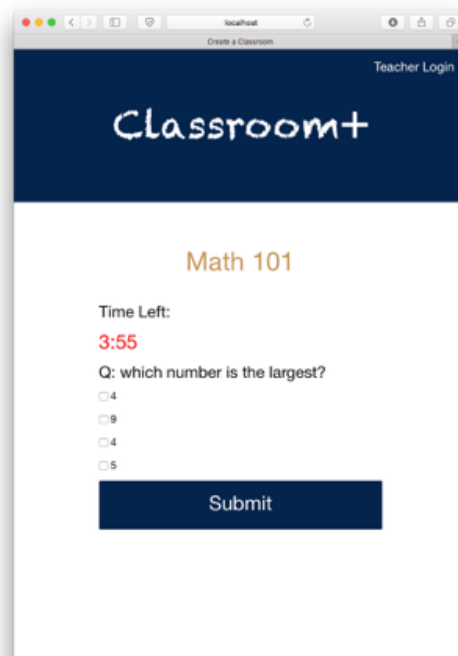
Figure 4: Student Submits a Poll / Quiz

Students need to submit the answer before time runs up. Results will be collected and generalized from teacher's view.

# 3 - Next Milestone

The next milestone is expected to deliver by 11/21/2016. We expect the system to meet following requirements:

- The system will look nice and perform efficiently.
- The polls will support custom answers instead of just yes/no.
- It will have the capacity to form quizzes ahead of time and submitted them to the students
- Teachers will see all the responses and the summaries for the classes
- The system will have a user-friendly interface.

# 4 - Prototype

The current prototype can be found at https://classroomplus-145703.appspot.com

Teacher Username: test_teacher

Teacher Password:  password1

Any feedback is appreciated