Phone and Web Based Clicker Project

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Summary
The goal of this project is to create an interface for Android, iOS, and Windows Phone smartphones, as well as a web interface that will act as a “clicker”. The instructors will be able to send out questions, and the students will be able to answer the questions, and get feedback if the instructor wants them to have it. The teacher can decide whether the feedback is instant or manually initiated, and what format the response will be, whether it includes the correct answer, and what type of chart, if any, indicating the most commonly selected answer(s). There will be several question types, including (but not limited to), multiple choice with single answers, multiple choice with several answers, short answer, fill-in-the-blank, and matching. The instructor will also see several other question types that will create a question with predefined answers (for example, true-false questions will be a multiple choice question with two answers predefined, one being true and the other false. Ideally, there will also be another device that will be for sale or rent for students that do not own a smartphone.

The design of the application will be a backend on a UND controlled server, including a database of users. There will be a light, frontend application for each of the desired platforms that will integrate with the backend, making a seamless application. Ideally, time and ability permitting, the application will be able to integrate with Blackboard services and update grades by teacher request based on a single or series of questions.

Design Considerations
When thinking about creating new software, the first thing I thought of is why this software, and why create it this way? Well, in short, the clicker software stemmed from the need for the Computer Science classes to be able to poll their students in a similar fashion to how the rest of the campus does, but more suited to being on a computer at the time. This stemmed the idea of a web-based interface. When starting off thinking about what it would best look like, I also realized it would be incredibly useful if students could use their smartphones or tablets to respond, not just a web browser. This way, not only would the Computer Science department benefit from the software, but the entire campus. As I interviewed users of another polling software, I asked them about things they liked and disliked. I quickly realized that the current polling solution isn’t much of a solution at all; it’s buggy, slow, and can be difficult to connect to for first-time use. Knowing this, I can make my software the opposite of that – stable, quick, and easy to use.

Goal: Enable Faster Use for Repeat Users
PollSoft is simple enough for the non-technical-savvy user to understand and use, but powerful enough for the advanced and frequent users to get things done quickly, and with the customization they want and need.

Goal: Support Use for Testing and Quick (Unscored) Quizzes and Polls
Whether the project goes scored or unscored is up to the user. Everyone scores their questions and tests differently. PollSoft makes it possible to score the question however it needs to be scored.

Goal: Ease of Use
With a step-by-step guide to creating the right project, anyone can figure out how to make their presentation exactly the way they want it. As users grow accustomed to how the software works, they will sometimes want to create a question quickly and with fewer clicks. With Quick Mode, it’s faster to create questions, and each page includes more options.

Goal: Support for All Types of Questions Needed
With 7 different common question types, there will be no question un-asked. And with a clear and concise option for each question type, there will be no wondering how to create the right question.

Goal: Best-of-Breed Solution
With PollSoft, creating a presentation for a class with questions and information alike is easier and simpler than ever. By combining some of the unique and appreciated polling methods of other software and the input from users, PollSoft will have the most desired set of features in a way that fits each user’s skill set.

Figure 1. Choose weight of question

Figure 2. Initial menu screen for instructors

Figure 3. Create Project Wizard

Figure 1. Choose question type to create new question