Team: Gaurav Bishnoi, Rabin Ranabhat, Daniel Malmer

Title: Phone Application for Monitoring Troubled Students in the Denver Public School System

Description:

We'll be developing a phone application for collecting data while monitoring troubled students in a classroom environment. Rabin has a friend in the Denver Public School system who works with troubled students and needs a system for collecting data in real time while monitoring students. The application will give options for various criteria and allow the user to select/rate multiple students at a given time. For example, while monitoring, if a student begins moving around in his chair, has a verbal outburst, or hits another student, the user can mark the time with a simple click. Then, the app user can rate how the student reacted to teacher intervention in terms of amount of listening, acceptance of having done something wrong, etc. After the monitoring session is over, the user will be able to add descriptions to the various timestamps collected during the session.

The app will require that all the data be stored on a database either locally or on a remote server. Because this app will be used by the Denver school system, a remote server would require that the data be encrypted before being transferred. Because of this, we will begin writing the app with a local database, but we may add remote databases in the future. We'll also add functionality to transfer the data from the phone to a computer. Additionally, we want to add the ability for the user to access the database in real time while monitoring students in order to look at past behavior.

In addition, Rabin's friend suggested that the app be able to take video as well. While this will not be part of our initial product, we may be able to implement it in later iterations.

Platform/Environment:

We will use PhoneGap, which is framework for developing cross-platform (Android, iOS) mobile applications in JavaScript

Programming languages:

Programming Language	Rabin Ranabhat	Gaurav Bishnoi	Daniel Malmer
JavaScript	Intermediate	Beginner	Intermediate
SQL	Beginner	Beginner	Intermediate

Functionality:

- Allows the user to mark particular instances predefined categories (Anger, Violent, etc.) of multiple students being observed
- Can add notes to the marked instances after the session
- Compare the behavior of two subjects in real-time
- Uploads the data into a local database
- Can simultaneously access previously recorded data in real time

Stretch Functionality:

- Simultaneously records video
- Uploads the data into a remote database