About CPS
“Founded in 2006, Community Partnership School (CPS) is an innovative, independent elementary school, dedicated to providing an affordable, high-quality education to children from low-wealth, low-income backgrounds in North Philadelphia.

Located in North Central Philadelphia and serving one of the city’s lowest-income neighborhoods, CPS provides small class sizes; a 6:1 student to teacher ratio; state-of-the-art technology in the classroom; hands-on, inquiry based learning methods; and an enriching After School Program that offers instruction in martial arts, ballet, African dance, music, chess, and more. Now in its seventh year of operation, CPS serves 88 students spanning pre-kindergarten through fifth grade, 23 middle school alumni, and continues in its mission to shape curious, compassionate, resilient scholars who will be future leaders in their community.”

App Design
The main goal of our CPS app was to allow the school to send customized notifications to their different constituencies. This is not visible in the photos to the right, but new notifications are broadcast using Android’s standard push notification system. Users specify which type of notifications they wish to get in their preference settings. We also decided to include a map containing directions to the school as well as several places of interest, two XML feeds for news and classroom stories/teacher insights, and an about us page containing additional school, contact, and donation information.

Pre-Release Version
After another meeting with CPS, we set about making our final product. We included a more refined GUI, and took into account CPS’s final comments.

Challenges
Both of us were relatively new to the idea of multi-threading, so running a separate thread for the notification service as well as the asynchronous parsing task presented significant challenges for us. Event driven programming was also a new concept to us.

User Feedback
During our User Experience testing we discovered several minor user friendliness issues, as well as some new design considerations. We realized we needed to better introduce all the features of our app, as well as reduce user annoyance by including improved loading screens. Users also pointed out several appearance issues, which we are looking at addressing.

Evolution of App

Prototype
We started out this project by drawing out our app on notecards. We carried these around with us acting as though they were an actual app, to determine the practicality of our design. We then received feedback from CPS about their vision for the final product, and made suitable adjustments to our plan.

Prototype
Following this, we coded a very rough outline for our app in order to determine the practicality of all the features we wished to implement.

Pre-Release Version
After another meeting with CPS, we set about making our final product. We included a more refined GUI, and took into account CPS’s final comments.