Android Mobile Development Team Project

Proposal

Members:

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Idea:

* Investigate “Internet of Things” concepts with hands-on development via a WICED SMART sense TAG.
  + Tag can sense:
    - Gyroscope- Device orientation
    - Accelerometer- speed sensor
    - eCompass- digital compass
    - pressure
    - humidity
    - temperature

Goal:

* Learn how to use “Internet of Things” concepts and integrate them into a fully functional app.
  + Create an application which can read sensor information (with minimal display). ***This is our core function and minimum implementation.***
  + Store read data inside the app.
    - Will likely hold a week’s worth of data.
    - Perhaps gather an average of acquired data for each hour.
    - Any hours with no sensory information will display as “NA” or something similar.
  + Output stored data into a clean and easy to read UI.
    - Potentially have a tab for each type of sensory information?
    - Potentially allow user to configure UI to their liking in some manner?
  + If we have time, potentially attempt to use the data in some way other than data output.
    - Make estimations of “total change this week” in each data category?
      * IE: “Total distance traveled” or “Highest temperature Vs Lowest temperature”

Tasks:

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| Tasks | Description | People | Date |
| Research:  Become accustomed with device. | Determine how to connect to device and read data in a way that can be used for android applications. | Jeffrey  Brandon | Thur, Oct 1st  Friday, Oct 16th |
| Design program. | Design Layout of UI and Base Functionality of code. | Brandon  Jeffrey | Thur, Oct 1st  Friday, Oct 16th |
| Implementation:  UI | Create basic UI to display read data. | Jeffrey  Brandon | Sat, Oct 17th  Sat, Oct 24th |
| Implementation:  Data | Implement data-reading into the application. | Brandon  Jeffrey | Sun, Oct 25th  Sun, Nov 8th |
| Report Update: | Progress report on what accomplished so far. | Brandon | Thur, Nov, 5th  Mon, Nov 9th |
| Research:  Become accustomed with database management? | Determine the best method to dynamically store a week’s worth of sensory data. | Jeffrey | Thur, Nov, 5th  Mon, Nov 9th |
| Implementation:  Database | Implement storage system and modify UI to properly display new functionality. | Jeffrey  Brandon | Tues, Nov 9th  Monday Nov 23rd |
| Testing:  Debug program | Capture test data and fix any problems. | Jeffrey | Tues, Nov 24th  Monday Nov 30th |
| Final Report:  1st draft | Write first draft of final report and presentation. | Brandon | Tues, Nov 24th  Monday, Nov 30th |
| Implementation:  Data manipulation | Implement further functionality based on manipulating data captured. | Jeffrey  Brandon | Tues, Dec 1st  Mon, Dec 7th |
| Data Collection | Capture at least 5 days of data (preferably 7). | Brandon | Tues, Dec 1st  Sat, Dec 7th |
| Final Report:  Final Draft | Add to and finish report and presentation. | Jeffrey | Mon, Dec 7th  Sat, Dec 11th |
| Testing:  Final Debugging | Last minute fixes/tweaks to program, if necessary. | Brandon | Mon, Dec 7th  Sat, Dec 11th |
| Practice presentation | Practice the presentation. | Jeffery  Brandon | Sun, Dec 12th  Mon, Dec 14th |