* Team description
  + Joseph Gentile: Planning, organizing, data visualization
  + Isaac Wasserman: Hardware guy, database storage
  + Shi Jie Samuel Tan: Data Extraction
* Project title
  + CS107 Classroom Student Assessment Kit
* Description of the project

1. Attendance system. We will use an RFID scanner to scan students’ OneCards as they enter the classroom. This scan will sign them in to the class. All data will be stored in a remote database that can be accessed by a front-end data visualization layer.
2. Piazza participation. We will crawl the CS107 Piazza page to gather data from each and every thread. Each thread will be assigned a numeric value that will contribute to the corresponding student’s overall participation grade. Criteria that influence this score will be number of words, number of questions, number of responses. We will also attempt to perform sentiment analysis on the post’s responses so that it may influence a post’s score. This data will also be able to be visualized.

* Why is the project topic suitable for this class?
  + Firstly, it is a practical tool for use in future versions of the class; Prof. Kumar can use this for taking attendance (which he has hereto struggled with), and he can use the participation tool to see how active the students are in collaborating and possibly incorporate that into a portion of the grade for future classes.
  + Secondly, it incorporates a lot of the data structures and topics we have covered thus far. It would include sorting algorithms (to rank the students), trees/tree traversals (to store posts, comments, replies, likes) and dictionaries (to store the data of students).
* Timeline:
  + Week 1, 11/19-11/26:
    - Isaac: Find materials for OneCard reader, set it up so that when it reads the card it sends the data to our program. Take 4-5 hours.
    - Joseph: Data visualization, how to interface with that data. Mess with Python Data Visualization tools, research, come up with features (i.e. visualize attendance for any given class (current and recent), add a new class, add/remove students from a class. Participation, find some way to express the data in some graphs). Furthermore, find package for sentiment analysis. 3-5 hours.
    - Sam: Figure out how to extract data from piazza. 3-5 hours.
  + Week 2, 11/26 - 12/3
    - Sam: Set up dataTree for piazza data, data organization.
    - Joseph: Implement user functions in Pycharm, tell Sam/Issac what is needed from there.
    - Isaac: Testing databases, help Sam.
  + Week 3, 12/3-12/10
    - Sam: Debugging; Building UI.
    - Joseph: Debugging; Testing, work on final report.
    - Issac: Debugging; Building UI.
* Has any foreseen or unforeseen risk?

1. Need to actually get our hands on some physical materials, which shouldn’t be a problem but could be.
   1. Possible mitigating measure: Work with VCAM and internet tutorials
2. Since this is something new for us, we might run into trouble pulling the data from Piazza.
   1. Possible mitigating measure: Construct our own JSON structure and work with it as the input