CS122 Project Proposal

Team Name: EdMoneyball
GitHub: https://github.com/siruif/cs2project.git
Team Members:

- Sirui Feng
- Turab Hassan
- Vi Nguyen

Clear Goal:

- Inform families who are looking for public elementary schools on what schools are available to them, and make it easier for them to compare the performance and budget priorities of those elementary schools with data visualization
    - Possibly make recommendation based on family priorities:
        - location/transportation
        - services available
        - diversity of students
        - pull in guidance for registration

Interesting Source(s) of data:

- Chicago public school performance from the Chicago Data Portal
- Chicago public school budget data from the Chicago Public Schools
- Chicago public school expenditure data from the Chicago Public Schools
- Chicago public school access data from Chicago Public Schools

Interesting new data structure/algorithm/programming technology per person:

1. Website technology to bring in merged data of budget, expenditure and performance, and school access
2. Heat map to display data
3. Data visualization technology to query our merge data set and display comparisons
4. Pop-up technology for when user is searching for specific zip code
5. (Possibly) Algorithm to make school recommendations for parents

Timeline (DUE DATE: 3/15/2016)

1. **Week of Mon 1/25: Datasets**
    - *Proposal due on Tues 1/26*
    - Gather and Merge Datasets
        - School Performance Data - Sirui
        - Budget & Expenditures - Turab
        - Access Information - Vi
        - Identifier information from Lingwei -Vi
    - Questions:
        - What identifiers can we use to merge all datasets?
        - What data columns do we have that might be useful?
        - What's the most up-to-date data that we can get?
    - (For teambuilding: Watch MoneyBall)
2. **Week of Mon 2/1**
    - *(PA due 2/2)*
    - Understand technology needed

        - Google Maps/Fusion
        - Website / Django / Flask / Ruby on Rails
            - Default view of all Chicago Public Schools
            - Input and track zip codes entered
            - Display performance and budget allocation
            - Visual comparison of performance and budget allocation
3. **Week of Mon 2/8: Build Site**
    - Google Maps Integration/Default View - Turab
    - User interface and display of select zipcodes - Vi
    - Comparison of schools - Sirui
4. **Week of Mon 2/15: Build Site**
    - *(PA due 2/16)*
    - Google Maps Integration/Default View - Turab
    - User interface and display of select zipcodes - Vi
    - Comparison of schools - Sirui
        - possibly algorithm that recommends schools based on user input priorities
5. **Week of Mon 2/22: Build Site**
    - Google Maps Integration/Default View - Turab
    - User interface and display of select zipcodes - Vi
    - Comparison of schools - Sirui
        - possibly algorithm that recommends schools based on user input priorities
6. **Week of Mon 2/29 -Prototype**
    - *(PA due 3/1)*
7. **Week of Mon 3/7 - Modifications of prototype & consider future use**

Resources:

- http://cps.edu/ScriptLibrary/Map-SchoolLocator2015/index.html
- http://cps.edu/SchoolData/Pages/SchoolData.aspx
- https://github.com/NUKnightLab/cpsbudget/tree/master/js/data
- https://pypi.python.org/pypi/geocoder/1.8.0

Team Meetings

- 2 Work Session a Week; 3/hrs; CIE
    - Wednesday Evenings (4-7pm)
    - Saturday Afternoons (2-5pm)