CSC542– SOFTWARE ENGINEERING CONCEPTS– FALL '17
PROJECT DESCRIPTIONS & BASIC REQUIREMENTS

Since you will have limited contact with the users, the Project Executive started working compiling requirements for each project. This list is based on a quick brainstorming session with the product owner at the client site. These requirements must be incomplete and preliminary. Very little of the implementation details are specified; like all customers, they are hiring you to handle the details of the development of this project. The hope is for this to serve as a starting point for your brainstorming and project conceptualization.

CLIENT: SOFTWARE ENGINEERING INSTRUCTORS

At large U.S. universities, software engineering courses often enroll in excess of 100 students. As befits the material, most or all of the course depends on a large, team-developed project. But this creates an important mismatch: each individual student should be graded on her/his contribution, but the team will receive a single grade. Since there are always students who will regularly miss class, be unable/unwilling to perform expected tasks, or otherwise not complete their share of the work (also known as the "free rider" problem), an even division of grades is not fair and rewards poor behavior. With large numbers of student groups, however, it is impossible for the instructors and TAs to really understand each group's dynamics and thereby find an appropriate splitting of points.

Given these difficulties, software engineering instructors often use peer- and self-evaluations to divide points within a team. These peer- and self-evaluations include a numerical survey on the efforts and results of all team members. An example evaluation is shown on the following page. Combining the results from across the entire team provides insight into team dynamics that enables fairer grade outcomes. Because these evaluations are used for grading, many complications arise. Issues these projects will need to address include:

- Students should only be able to view and submit grades for themselves. Students must log in to a system to verify their system before use. While students can REVISE their evaluation, they should not be allowed to submit multiple sets of evaluations.

- Students often write a teammate's nickname or misspell a teammate's name. This makes it difficult to combine the results to generate the team score. To simplify the results, your system will need to read a list of the team member names that it automatically fills in to the survey. Saved results should similarly be associated with those formal names.

- While the scores are numeric, there is no guarantee that students agree on the standards for each score. Training students on standards would be difficult, so submission are normalized, instead. Normalizing scores first requires calculate the total of the all the scores entered by the student. Each score in the evaluation is then stored as the percentage of that total that it equals. So if all the scores totaled 50, a score of 0 remains a 0, a score of 1 is normalized to 0.02 (1 / 50), a score of 2 would be stored as 0.04 (2 / 50), and a score of 5 becomes 0.1 (5 / 10).

- This will need to be used by teams of instructors in the future, so any deliverables must be clear and the concepts well documented.

- Teams must accept a strict budget of $0 for this project. This should not prevent students from using software they already own or any free or open source software and libraries. Any use of outside resources MUST be clearly documented and be in keeping with the University at Buffalo's Intellectual Integrity Policy.

CSE542 Project Self & Peer Evaluation

Name: _____

List the main 3 contributions you personally made to this phase of the project. Be specific here, e.g., wrote user stories, created the UML class design diagrams, etc. If work was performed in collaboration with someone, please be certain to mention this fact.

Fill in the names of all the students in your group. **Be sure to include yourself and all your teammates**. On a scale from 0 to 5 (0 being the lowest score and 5 the highest), evaluate each group member's performance in each category. Please be honest and fair. These forms are confidential and helps make sure each person gets credit for, and has a grade reflecting, the work they actually did.

1. The **Professionalism** score is for showing up on time and prepared to all work sessions and meeting, staying on task, treating all teammates with respect, and behaving in an appropriate manner.
2. The **Meeting Participation** score is for contributing to discussions in your meetings, continuing discussions from past meetings, and completing work along with the group during these meetings.
3. The **Work Evaluation** score is for contributing to the completion of the project. This includes preparing and editing documents, reviewing documents created by others, maintaining your repository, helping finalize the work for submission, and completing any tasks assigned to them between meetings.

Group Members *(Including Yourself)*	**Professionalism (Score 0-5)**	**Meeting Participation (Score 0-5)**	**Work Evaluation (Score 0-5)**