

Teamwork

We want to develop a web application which can help teachers to form teams and then assess the contributions from team members during the process of task fulfillment in a course project, e.g., software development projects. This application has two kinds of users: teacher and student.

Teacher

A teacher can use this system to

- import students' information (student name, ID, email, GPA??) for a course. The information is imported as an excel file.
- generate user name (student's email) and initial password (same for all) for each student whose name is in the list.
- add the submission items of the course. Each submission includes a title (description) and an assessment percentage. The name and percentage for each submission can be modified. The sum of all submission percentages should be 100%.
- form teams for this course

The number of members in a team is decided by teacher. When the total number is not the multiple of this number, suggestion should be given. e.g. there are 76 students, and teacher wants 4 in a group, then he can decide that some groups have 3 or 5 members.

This application can offer several choices to form teams for students.

- i. All the members are chosen by students themselves.
 - ii. The members are decided by system automatically.
 - iii. A student can choose one friend and others are given by system randomly
 - iv. GPA might be considered in ii and iii. It is decided by teacher.
- export a file which lists the contribution for each student in the whole class.

Student

Each student who takes this course can

- login the system and change his password.
- choose his friend for his team or confirm when his friend chooses him as a friend if teams are formed using choices i and iii.
- vote to choose the project leader of the team.

The project leader has right to assess member's contribution in EACH submission if he likes. The contribution is classified in four levels: A better description maybe: (a) full, (b) fair, (c) little or none.

Each member has right to give the OVERALL assessment on the project leader after the project is finished (very good, good, fair, bad, very bad).

The system will

- summarize the contributions from non-leader member using the following formula.

```
fullScore=1.0, fairScore=0.67, littleScore=0.33, noneScore=0.00
```

```
Contribution = %full * fullScore + %fair * fairScore + %little * littleScore + %none * noneScore.
```

- count the bonus for the leader: average assessment.

It is assumed that the exported contribution file will be used in another existing Grading system.