

Teammates: A Cloud-Based Peer Evaluation Tool for Student Team Projects

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Abstract

'Teammates' is a cloud-based peer evaluation tool for student team projects.

1. Introduction

Student team projects pose many challenges to educators, in particular because of possible inequality of contributions from different team members. Frequent peer-evaluation can be a big help in addressing the two following challenges:

1. Evaluating how much was contributed by each team member.
2. Giving feedback to students on their contribution to the project.

However, most educators do not have access to a peer-evaluation system that gets the job done without adding too much overhead to students' workload or their own workload. *Teammates* is an online peer-evaluation system we built to fill this gap.

2. Product features

Teammate's two main functions are that it allows students to: 1. pass to the instructor quantitative estimates and qualitative comments about the contribution from each teammate. 2. pass anonymous feedback to teammates about their work. *Teammates* can be used in any course that has a team project component.

Given below are some salient features of the system.

a) Easy set-up and operation: The system leverages existing cloud infrastructure and follows the 'Software as a Service' model so that users are spared the hassle of setting up and operating the system in-house.

b) Simple and flexible peer-evaluation criteria: Since project courses differ widely, our system tries to keep the evaluation system simple and flexible enough to be applicable to a wide variety of course structures. The current version allows students to submit three data items about each teammate: A quantitative estimate of the contribution (e.g. [fair share]+10%), justification of the estimate, and anonymous feedback to the teammate.

c) Focused feedback to students and teachers: Once the evaluation is over, students are informed of the *perceived contribution* (the average contribution rating received by the student) and the anonymous feedback received from teammates.

d) Optimised report formats to highlight problem cases: Our system offers different report formats such as 'by reviewer', 'by reviewee', 'by team' that highlight problem cases and help to find relevant information quickly.

e) Full flexibility to moderate: The system allows the instructor to moderate peer-to-peer feedback. This is useful when a student submit peer-to-peer feedback that goes against the spirit of the course.

f) Minimizes overhead caused by student non-compliance: Our system reduces the impact of typical student behavior such as waiting until the last minute to submit peer-evaluations and complaining of 'the Internet going down' by using mechanisms such as in-built alerts and hidden grace periods.