

Crowdsourcing-based evaluation of seminar exercises and test case development*

Attila Adamkó, Tamás Kádek, Lajos Kollár, Márk Kósa,
Tamás Szincsák^a, Anikó Vágner

Faculty of Informatics, University of Debrecen
{adamkoa,kadek.tamas,kollarl,kosa.mark,vagner.aniko}@inf.unideb.hu
^asztam89@gmail.com

Abstract

In this paper we present the idea of an application that can be used by instructors (or even students) when they want to provide the students some optional exercises (let them be programming, database, math or any other kind of exercises) to practise without any feedback from the instructor side (e.g., due to lack of time for preparing appropriate test cases). In such cases, by the help of the application, students can ask the crowd (other students) to validate their solutions. Therefore practising students can receive some feedback, even if these answers cannot be trusted. To deal with false positive feedbacks, it is important that not only the solutions but the people giving feedbacks should also be rated. Later, those people's ratings who regularly give wrong answers will count less.

Similar idea can be used in the field of test case development. On a voluntary basis, the members of the crowd can develop test cases for a given exercise. Test cases (and their developers) can then be rated according to the importance or number of errors that are revealed using the case. This crowd-based test case development procedure can help users in self-validation of their own solutions. If the quality of the developed test cases are good enough (from a statistical point of view) then they can serve as a member of a TaaS (Testing as a Service) process [1].

Keywords: Smart Campus, Crowdsourcing, Test case development

References

- [1] G. CANDEA, S. BUCUR, C. ZAMFIR, Automated software testing as a service, *Proceedings of the 1st ACM Symposium on Cloud Computing (SoCC)* (2010), 155–160.

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