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**SEMI-AUTOMATED SUPPORT FOR ASSESSMENT OF SOFTWARE TESTING
ASSIGNMENTS**

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Software testing is commonly taught as part of various computer programming and software engineering courses. To teach software testing effectively, students should normally be given practical assignments so they can practice applying the concepts taught. There are several problems associated with monitoring and assessing work done by students on such assignments. It is difficult for an instructor to verify the quality of testing a student has done since the student does not work under the instructor's direct supervision. Professors cannot stand and watch students' testing activity, and whether the activity adds quality to the testing process. The goal of this research is to define how to best assess student work in performing software testing assignments. We examine the possibility of providing automated support for students in completing software testing assignments, with functionality included specifically for enabling instructors to monitor and assess more effectively the students' work. We investigate the idea of evaluating students' testing work at various stages of software testing before allowing them to go on to next phase of testing. This process will ensure students catch their mistakes early, since the tool will not let them proceed with the next phase of an assignment until they correct their mistake(s). The assessment process focuses on the correctness of the results of intermediate testing steps. This is unlike other automated tools developed [Car03, Ed04] which focuses only on output correctness at the end of process. Additional benefits include an improved assessment process for instructors, evaluation guidelines to assess student's performance, feedback for students, and a persistent record of the entire process.

[Car03] D. Carrington. Teaching software design and testing. *Department of Computer Science and Electrical Engineering, The University of Queensland Brisbane*, 2003.

[Edw04] S.H. Edwards. Using software testing to move students from trial-and-error to reflection-in-action. In *SIGCSE '04: Proceedings of the 35th SIGCSE technical symposium on Computer science education*, pages 26–30, New York, NY, USA, 2004. ACM Press.