

**DEVELOPMENT AND ANALYSIS A SIMULATION TEST APPLICATION
BASED ON MOBILE APPLICATION USING A PROGRAMMING LANGUAGE
OF JAVA MICRO EDITION, PHP, AND MySQL**

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ABSTRAK

The aims of this research were (1) to develop a simulation test application based on mobile application using a programming language of JAVA MICRO EDITION, PHP, and MySQL, (2) to find out the quality of the practice test based on McCall's Software Quality including the aspects of correctness, reliability, efficiency, integrity, usability, maintainability, flexibility, testability, reusability, interoperability. Research methods that used in this research were Research and Development (R&D). The findings were (1) the development of the practice test application based on mobile application using a programming language of JAVA MICRO EDITION, PHP, and MySQL was done by employing NetBeans IDE 7.0.1 software and finished by using several steps which were the analysis (need analysis, material analysis and software analysis), design (system and interface designs), and the development (development of interface design and program design), (2) the test result of the quality of Practice Test Application based on mobile application gained the correctness value of 11.8, 7.58, and 8.29 which was in the span of 0-40 error per KLOC, the reliability of 91.29%, flexibility of 92.50 %, testability of 89.33 %, reusability of 90.00 %, interoperability of 80.00 % and usability producing Alpha Cronbach value of 0.965 (very good)

Key words: simulation test, mobile application, McCall's software quality