Software Testing of an ATM Equipment Management Website with Selenium

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***Abstract*—This thesis tests an ATM equipment management website using manual cases and Selenium-based automation. The report introduces software-testing methods, describes website functions such as login, ATM-tree management, search, user management, and equipment management, and prepares test cases for selected workflows. Its practical chapters document Selenium IDE and Grid concepts, automated browser cases, and JMeter performance-test examples. The conclusion says many functions were exercised, while acknowledging that deeper branches were not fully tested and WebDriver was not yet practiced. The separate cover document in the same source archive identifies the student, supervisor, title, and year; the body PDF begins with acknowledgements. This summary therefore uses the cover for bibliographic metadata and the body for methods and results. The source does not substantiate complete coverage or a general website-quality certification.**

***Index Terms*—software testing, Selenium, ATM equipment, JMeter, web application**

I. Introduction

An ATM equipment management website handles operational records and user actions that should be checked before routine use. This thesis examines its functions through both manual and automated testing. It reviews test levels, methods, case design, and automation, then focuses on the selected website. The aim is to describe representative scenarios and compare testing workflows. The source does not claim that every possible branch or failure condition was covered [1]. Earlier ICTU student work on related designs is included here for context [2], [3], [4], [5], [6], [7], [8], [9], [10]. These contextual works were selected for this English summary; they are not asserted to appear in the original thesis bibliography.

II. Methods

The author first analyzes login, ATM-tree management, search, user management, and equipment functions and constructs manual test cases. A later chapter explores Selenium IDE and related automation concepts and records browser test execution for selected scenarios. JMeter is used for performance-test examples with concurrent users. The archived source includes scripts and test files alongside the body PDF. The author explicitly says WebDriver was not yet practiced [1].

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III. Results

The report contains test-case tables, screenshots of manual and Selenium execution, and JMeter output for selected loads. The conclusion says most website functions were tested and results were recorded. It also states that deeper branches were not fully exercised. The evidence supports a substantial testing exercise, but it does not demonstrate full coverage, a stable defect rate, or lasting performance under production traffic [1].

IV. Discussion

Manual cases make expected behavior explicit, while Selenium can repeat browser steps and JMeter can probe load behavior. These methods answer different questions and depend on well-designed cases and environments. The author recognizes that WebDriver practice and broader branch testing remain future work. Performance examples should be interpreted within the reported local setup, not as a guarantee about production capacity. A later suite could track defects, retests, and coverage systematically [1].

V. Conclusion

The thesis documents manual and Selenium-based tests for an ATM equipment management website, with additional JMeter examples. It presents cases and results for selected functions. The author states that deeper feature branches and WebDriver practice remain incomplete. The source therefore supports a testing project rather than complete certification of the website. Continued case design, retesting, and environment documentation would strengthen the evidence [1].

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