

## **ABSTRACT**

The Data Protection application is a web-based system designed to assist companies in regulatory compliance management, identifying deficiencies, and monitoring data. To ensure the quality and security of this application, testing was carried out using various methods, including Manual Testing, Automated Testing using Selenium, Stress Testing using Apache JMeter, and Penetration Testing. Testing was carried out with scenarios determined by the mentor and using the Decision Table Testing method, which includes valid, invalid, and blank input testing. The test results showed bugs or defects in the system, and security holes were found in the form of Cross Site Scripting (XSS) in the penetration test. Meanwhile, in terms of performance, the application remains stable and reliable under predetermined load conditions. The outputs from this testing are then compiled into a User Acceptance Testing (UAT) Report document and submitted to the internship mentor for further analysis. This information will be used by the student intern development team to fix system deficiencies, improve application quality, and strengthen security from potential cyber

Keywords: Data Protection, Web-based System, Manual and Automated Testing, Stress and Penetration Testing, Decision Table Testing, User Acceptance Testing (UAT)