PENGUJIAN *LOAD TESTING* WEBSITE JURUSAN TEKNIK INFORMATIKA POLITEKNIK NEGERI BENGKALIS

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ABSTRACT

Jurusan Teknik Informatika Politeknik Negeri Bengkalis has a public website that contains academic information, study programs, and other information related to the department. However, since its construction in 2019, the website has not undergone any testing or performance measurement. A study was conducted to test the performance of the website using load testing method with Apache JMeter. Load testing is used to evaluate the system's ability to handle high workloads. The study began with testing scenario modeling and performance testing using Apache JMeter. The test results include observations on system performance, load time, latency, throughput, error rate, and response time. Based on the load testing results, recommendations for server usage (localhost, shared hosting, and VPS hosting) can be made. The results showed that the website can perform better after optimization, which affects the number of users tested. Before optimization, shared hosting services can be tested up to 50 users, and after optimization, it can be tested up to 300 users. This testing can run smoothly up to 1000 users on localhost and VPS hosting services, and any load above that will always result in an error.

Keywords: Performance Testing, Load Testing, Website, Informatics Engineering, Politeknik Negeri Bengkalis, Apache JMeter.