

## ABSTRACT

On web application, performance system is a critical issue because web users don't like to wait too long for a response to their requests. This performance problem surface to the situation where a system suffers from unexpectedly high response time or low throughput. Hence, to assure quality of web system, test system is an important process. Performance test is able to simulate load condition to identified bottleneck and optimization performance system.

Performance test done in 5 phases: project assessment phase, planning phase, scripting phase, execution phase, and analyzing and reporting phase.

Reference to Du Plessis, there is a several types of performance test included baseline test and load test. Baseline test refers to identified performance systems problem erlier. Load test refers to know performance system on normal condition and peak condition. This performance test was performed on MeritYuk.

The output of baseline test and load test will generate in 6 (six) metrixs: avg. concurrent user, avg. page time, avg. response time, avg. throughput (page/sec), and percentage of error test.

Final result of baseline test and load test is baseline test had a good performance which the result meets baseline goal. Likewise load test on normal condition which using 23 vu had a good performance. However, result of load test on peak condition which using 125 vu meets baseline goal yet. So, on peak condition, we decrease the maximum number of user as much as 10 percents. After decrease maximum user several times, result of 75 vu had a stable performance.

Keyword: Performance Testing, Baseline Test, Load Test, Page Response Time, Throughgput.