



Success Story.

Load & Performance Testing For College Student Registration Portal

About the Client

- Leading education university founded in 1961, offering undergraduate and graduate courses at 6 campuses in southeast Florida.
- Renowned as an outstanding teaching institution, the university is undergoing rapid development as a center of cutting-edge research, particularly in the biomedical arena.

Business Challenge

- The client wanted to check their student registration portal performance in anticipation of the new year cycle
- With rising number of students accessing the website, the client wanted to ensure the portal was geared up to handle the load
- The client wanted to simulate critical performance and load intensive scenarios on the portal
- Initial load testing to be conducted for 5 concurrent users, to be later expanded to 4000 users

Silicus Solution

The client engaged Silicus for our technology and domain expertise in automated, performance, load & security testing for web based & mobile applications. The testing team created a set of test cases and defined a QA strategy that was compatible with the testing needs of the client's application. The team also identified potential bottlenecks in the system, that were candidates for enhancements and upgrades.

The team created a configuration file with students, courses and other parameters that could be varied to simulate different scenarios. The team used Apache JMeter for the load testing, with the ability to analyze and measure the performance of services running on the web application. Test scripts were written on JMeter to capture performance measures for all transactions.

Documentation was provided for the test scripts, guiding client representatives on how to change the loads, configuration settings and time intervals between load spikes. Initial challenges related to executing the scripts and configurations were fixed, and the testing was simulated to up to approx. 4000 concurrent users.

JMeter was also configured for monitoring, the test engineering leveraged the functionality to get a clear picture on application and server behavior before load, on-load, and after-load.

Technologies Used



PLATFORM

Windows



TESTING TOOL

Apache Jmeter 3.1



PROJECT MANAGERMENTS

Basecamp

Client Benefits

IMPROVED RESPONSE TIMES

The client observed improved response times after acting on the recommendations provided by Silicus. Silicus was able to identify the slowest transactions in JMeter, and data access patterns were modified to boost the portal performance.

OPTIMIZED SERVER CONFIGURATIONS

The testing also shed light on the server loading, helping the client get a clear vision about server performance and taking steps to optimally configure the hardware.

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