CASE STUDY

US-BASED ED-TECH COMPANY LEVERAGES PERFORMANCE TESTING TO ENHANCE USER EXPERIENCE AND SLASH COST

CCS technologies

ABOUT CLIENT

Our client is a leading US-based ed-tech company, at the forefront of delivering cutting-edge learning solutions tailored for schools and organizations.

BUSINESS CHALLENGE

In the fiercely competitive landscape of ed-tech, scalability and reliability are non-negotiable. Our client faced a dual challenge:

- **Scalability:** Meeting the demand of a growing number of schools and organizations required a platform capable of seamless expansion.
- **Reliability:** As an educational lifeline, the digital platform had to ensure uninterrupted access to resources. Any downtime or failure risked eroding trust and reputation.

CCS SOLUTION

Our approach was methodical and comprehensive, addressing these challenges at every step:

Planning Phase:

- Developed a comprehensive test plan and strategy.
- Selected the appropriate testing tool (Apache JMeter).
- Identified critical scenarios.
- Designed workloads, test data, and custom scripts to replicate real user behavior.
- Conducted a rigorous test readiness review.

Environment Setup:

- Configured a testing environment mirroring the production setup.
- Established multiple virtual machines, installed necessary tools, and ensured seamless environment access.

Execution Phase:

- Fine-tuned concurrency ramp-up configurations.
- Implemented result monitoring through listeners.

- Executed a battery of performance test scenarios.
- Mined the test results for insights, identifying bottlenecks and breaking points.
- Determined the maximum user load that could be supported without compromising the user experience.
- Delivered a comprehensive performance analysis report with key performance attributes.

BUSINESS BENEFITS

Our mission was clear: to empower the edtech company's growth journey by ensuring cost optimization. Our efforts fortified their educational platform, ensuring scalability and reliability, which in turn enhanced the user experience. The benefits reaped included:

- **Cost Efficiency:** Elimination of tool licensing costs.
- **Early Issue Detection:** Timely identification and resolution of performance bottlenecks during development, significantly reducing overall costs.
- **Enhanced User Experience:** Proactive mitigation of potential bottlenecks, safeguarding user satisfaction.

TECHNOLOGIES OR TOOLS USED

- Apache JMeter

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