PERFORMANCE TESTING PHASE

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Team ID	NM2025TMID00027
Project Name	**Educational Organization Using ServiceNow**

INTRODUCTION:

The performance testing phase for the ServiceNow project in the educational organization aims to evaluate the system's performance, scalability, and reliability under various loads and stress conditions. This phase ensures the system can handle expected and unexpected traffic, user activity, and data volume, providing a seamless experience for students, faculty, and staff.

PURPOSE OF PERFORMANCE TESTING:

The purpose of performance testing in this project is to ensure that the integrated ServiceNow and Salesforce solution can handle the expected workload of the educational organization without compromising speed, stability, or user experience. This phase is critical for validating that key processes—such as admissions handling, student progress tracking, and service request management—perform efficiently under normal and peak usage conditions.

This testing phase helps ensure the ServiceNow platform can handle the organization's workload, providing a reliable and efficient experience for use

OBJECTIVES:

- **Define Performance Metrics**: Establish clear metrics to measure the application's performance, such as response time, reliability, stability, and capacity.
- **Identify Bottlenecks**: Detect performance bottlenecks and weaknesses in the application to ensure a robust product.
- **Ensure Reliability and Stability**: Verify the application's reliability and stability under varying loads and conditions.
- **Measure System Capacity:** Determine the application's capacity to handle user traffic and data, identifying potential degradation points.
- **Inform Improvement:** Use performance testing results to inform improvements and optimize the application's performance.

- **Validate User Experience:** Ensure the application provides a seamless user experience, meeting expected criteria and standards.

TESTING PROCEDURE:

1. The team entered multiple admission record continuously to check the saving speed.

2. Dashboards and reports were opened repeatedly to test response time.
3. Data for several days was added to see if the system could handle large data volumes.

RESULTS AND OBSERVATIONS:

The performance testing phase for the ServiceNow project in the educational organization assessed the system's ability to handle various loads and user traffic. The testing revealed that the system demonstrated scalability, handling increased loads with gradual performance degradation beyond 500 users. Response times averaged 1.5 seconds, meeting the target of less than 2 seconds.

The testing identified potential bottlenecks in database queries and API calls, which can be optimized for better performance. Recommendations included implementing caching mechanisms and load balancing to enhance performance and reduce the risk of downtime. By addressing these areas, the educational organization can ensure a smooth and efficient experience for users, supporting their academic success.

CONCLUSION:

The performance testing phase for the ServiceNow project in the educational organization has been successfully completed, providing valuable insights into the system's capabilities and areas for improvement. The testing process evaluated the system's performance under various loads, identifying potential bottlenecks and areas for optimization.