

Calculating Family Expense

Performance Testing Phase

1. Performance Testing Overview

Performance testing ensures the system runs efficiently under expected workloads. The goal is to verify response time, scalability, and system stability after deployment.

Testing Objectives:

- Validate that ServiceNow workflows execute smoothly.
- Ensure database queries respond within acceptable timeframes.
- Confirm that multiple users can access and record expenses simultaneously without delays.

Tools Used:

- ServiceNow Performance Analytics
- Browser Developer Tools (for load time checks)
- Sample Data Scripts for Load Testing



2. Test Scenarios and Metrics

Scenarios Tested:

1. User login response time (< 3 seconds).
2. Expense entry record creation (< 2 seconds).
3. Dashboard data refresh (< 5 seconds).
4. Concurrent users (50+) accessing the system simultaneously.
5. Report generation time (< 10 seconds).

Key Performance Metrics:

- **Response Time:** Average system load and query execution time.
- **Throughput:** Number of transactions handled per minute.
- **Error Rate:** Percentage of failed operations.
- **Resource Usage:** CPU and memory consumption under load.



3. Results and Analysis

The system passed all major performance tests within acceptable thresholds.

Test Metric	Expected Result	Actual Result	Status
Login Response Time	< 3 sec	2.5 sec	✓ Passed
Expense Entry Processing	< 2 sec	1.8 sec	✓ Passed
Dashboard Loading Time	< 5 sec	4.1 sec	✓ Passed
Report Generation	< 10 sec	8.6 sec	✓ Passed

All results indicated that the application performed efficiently without system crashes or major delays.

Minor optimizations were identified in database query indexing and cache management for future improvement.



Conclusion

The **Performance Testing Phase** confirmed that the *Calculating Family Expense* system is stable, responsive, and scalable for real-world use.

All critical functionalities met the expected performance standards, ensuring a reliable user experience post-deployment.