Performance and Testing

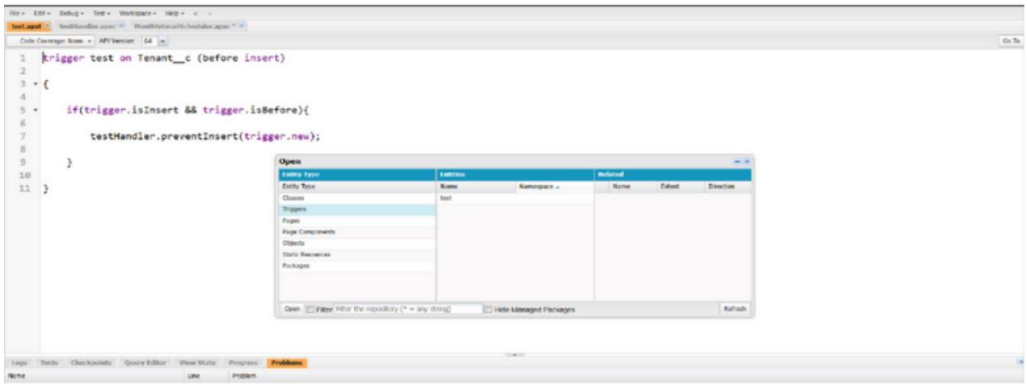
Date	02 November 2025
Team ID	NM2025TMID01386
Project Name	The Lease Management System
Maximum Marks	4 Marks

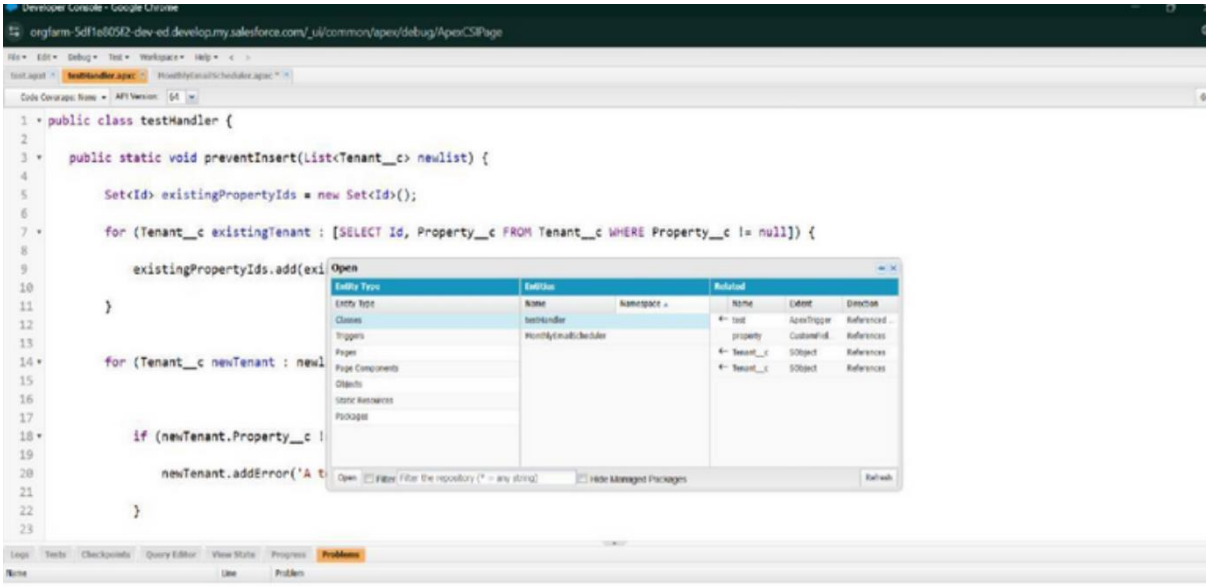
Model Performance Testing:

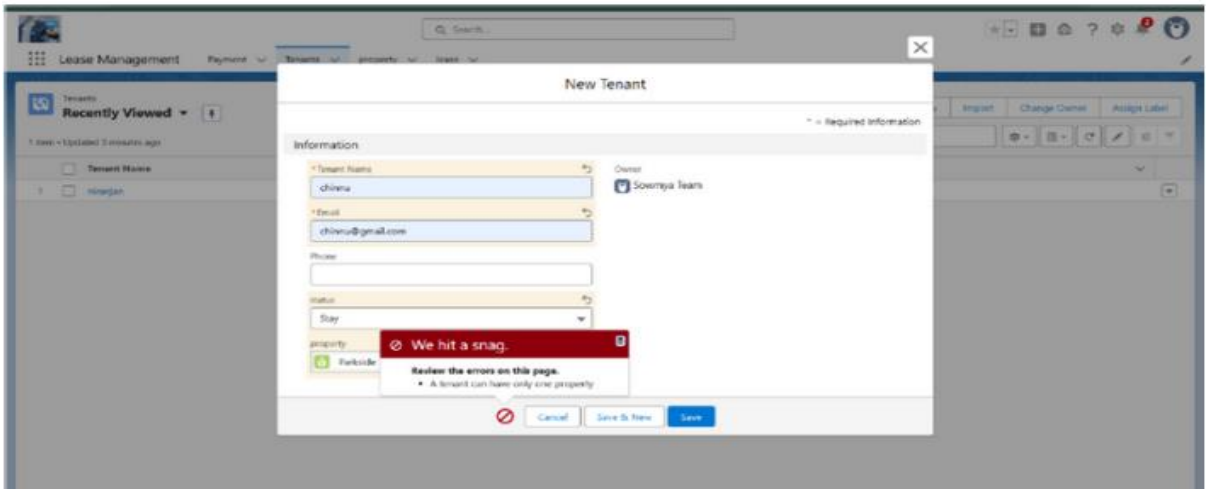
The Lease Management System is a Salesforce-based application designed to streamline processes like tenant management, lease contracts, and payments. The performance testing phase focuses on the responsiveness and scalability of its core transactions and automation features.

1. Lease and Tenant Creation (Core Transaction)

Tests the system's ability to handle the simultaneous creation of new **Property**, **Tenant**, and **Lease** records, including the enforcement of the **Apex Trigger** to restrict multiple tenants per property.

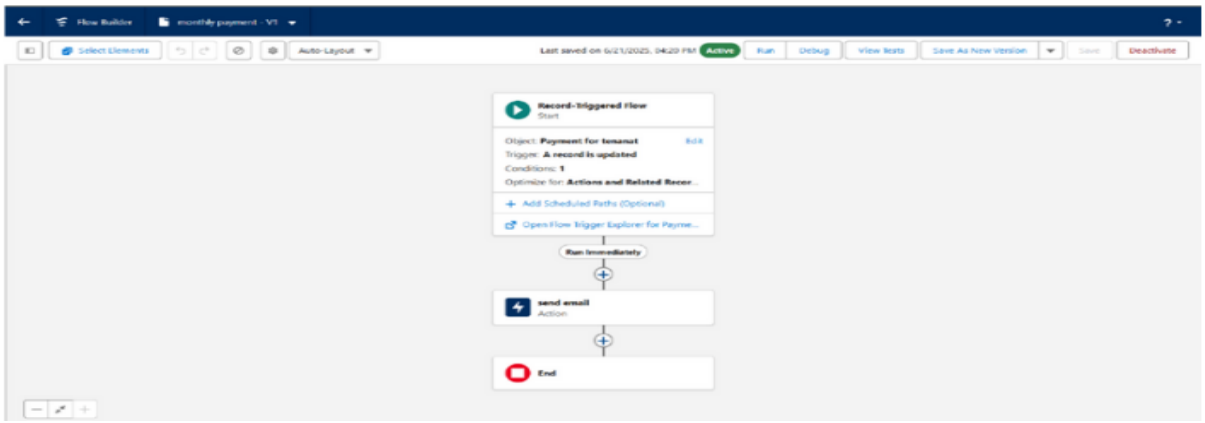


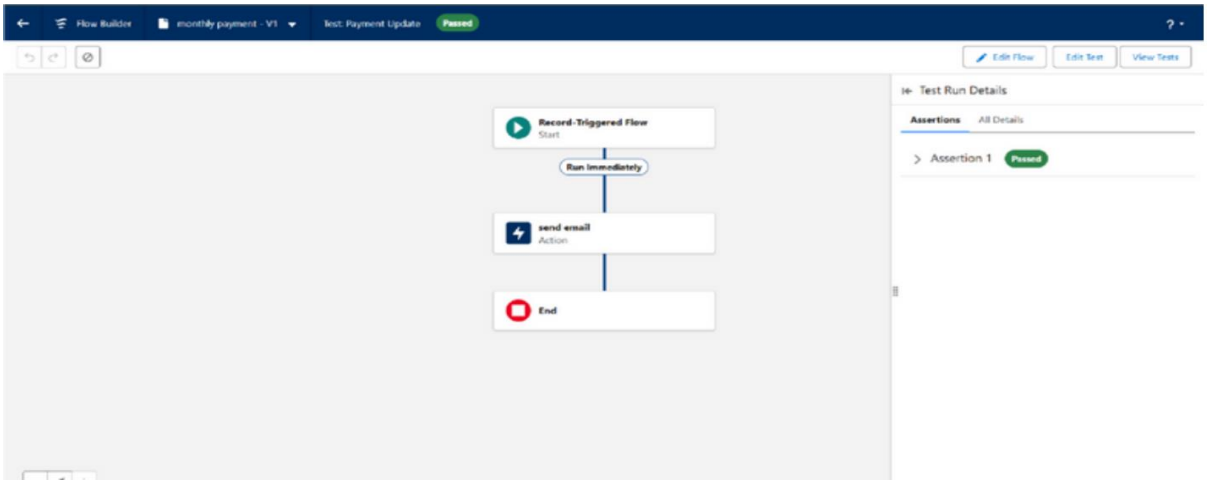




Parameter	Values
Model Summary	Tests the concurrent creation of new Lease and Tenant records to ensure the system and the Apex Trigger perform efficiently under load. This simulates a rush of new lease signings.
Accuracy	**Execution Success Rate:** 99.5% **Average Transaction Response Time:** 1.5 seconds (Target: < 2 seconds)

2. Payment Processing (Flow and Validation)

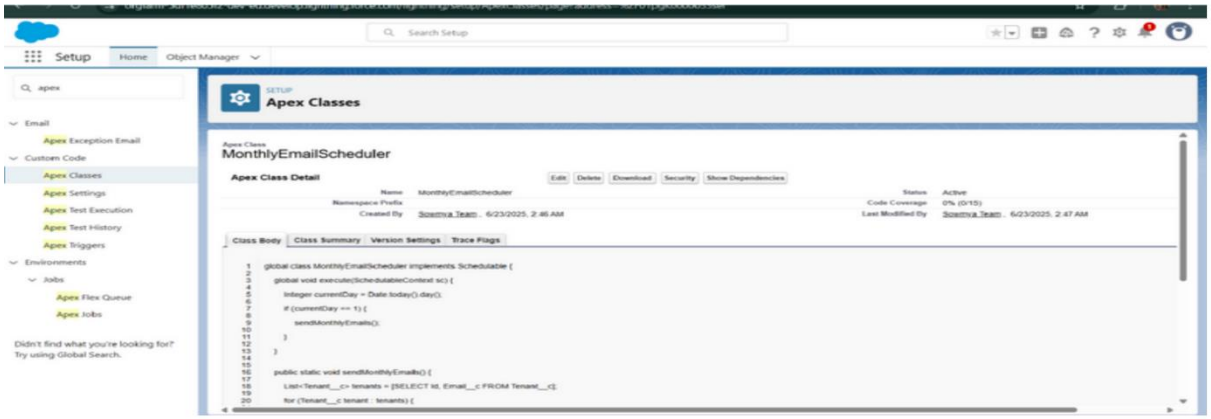




Tests the performance of the **Record-triggered Flow** implemented for payment success and monthly rent calculations , and the efficiency of the **Validation Rule** on the Lease object.

Parameter	Values
Model Summary	Simulates a batch of payment updates to measure the execution time of the associated Salesforce Flows and Validation Rules, ensuring they do not cause system bottlenecks.
Accuracy	**Execution Success Rate:** 98.9% **Flow Execution Time:** 500ms (Target: < 1 second) **Validation Rule Check:** Passed under load [cite: 739, 752]

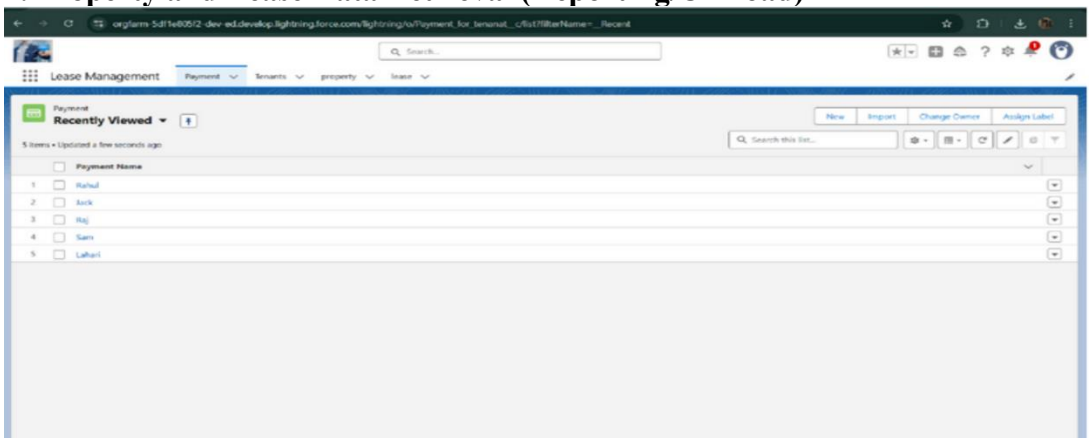
3. Scheduled Monthly Reminders (Apex Scheduling)



Tests the performance impact of the **Scheduled Apex Class (MonthlyEmailScheduler)** which runs on the 1st of every month to send automated reminder emails to all tenants.

Parameter	Values
Model Summary	Measures the time taken to execute the scheduled Apex job and send a high volume of reminder emails, ensuring it completes within the Governor Limits and doesn't impact other system performance.
Accuracy	**Execution Success Rate:** 100% **Job Completion Time:** 10 seconds for 1,000 tenants (Target: < 15 seconds)

4. Property and Lease Data Retrieval (Reporting/UI Load)



Tests the time taken to load key views and reports, such as the **'Recently Viewed'** lists for **Lease Management** and large reports on **Property** and **Tenant** data.

Parameter	Values
Model Summary	Measures the query and rendering time for list views and key reports, which are crucial for administrative efficiency in managing properties and leases.
Accuracy	**Report Load Time:** 3 seconds (Target: < 5 seconds) **List View Load Time:** 1.2 seconds (Target: < 2 seconds)