

Project Development Phase  
Model Performance Testing Report for "Book A Doc"

Field	Details
Date	10 April 2025
Team ID	SWTID1743701170
Project Name	Book A Doc

Model Performance Testing Overview

Aspect	Details
Purpose	To evaluate the performance of a hypothetical Salesforce integration in "Book A Doc" for managing patient/doctor data and syncing appointments.
Scope	Testing the accuracy, sync time, and scalability of Salesforce data integration within the MERN framework.
Team Members	- Param Yadav (22BCY10165) - Testing Lead   - Vibhushit Bhat (22BSA10132) - Performance Analyst   - Tushar Chahar (22BCY10231) - Salesforce Tester   - Saurabh Yadav (22BCY10165) - Reviewer

Model Performance Testing Template

Test Scenarios & Results

Test ID	Scenario	Description	Metric	Expected Value	Actual Value	Status
SFT-001	Data Sync Accuracy	Sync 100 patient records from MongoDB to Salesforce.	Accuracy	100%	98%	Fail
SFT-002	Sync Time per Record	Sync 50 records in a batch.	Latency	< 1s per record	1.3s per record	Fail
SFT-003	Concurrent Sync Performance	20 users syncing data simultaneously.	Response Time	< 2s per user	2.4s per user	Fail
SFT-004	Scalability with Data Volume	Sync 1000 records.	Sync Time Increase	< 10%	12%	Fail

Test Environment

Component Details

Hardware	16GB RAM, 4-core CPU, 256GB SSD
Software	Node.js v18, MongoDB v6, Salesforce API, Postman
Dataset	100 synthetic patient and appointment records (expandable to 1000)

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**Observations & Recommendations**

Observation	Details
Accuracy Discrepancy	98% accuracy indicates minor data mismatch during sync.
Sync Time Exceeded	1.3s per record exceeds 1s target; may be due to API latency.
Latency Under Load	2.4s per user exceeds 2s target; network or server bottleneck.
Scalability Issue	12% sync time increase with 1000 records suggests performance limits.
Recommendation	Details
Data Validation	Add error checking and retry logic for failed syncs.
Performance Optimization	Use bulk API or optimize Salesforce queries to reduce latency.
Load Balancing	Implement AWS load balancer or increase Salesforce API call limits.
Scalability Plan	Test with Salesforce Shield for larger datasets and better performance.

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**Conclusion**

Aspect	Details
Summary	The hypothetical Salesforce integration for "Book A Doc" requires improvements in accuracy, sync time, latency, and scalability. All tests failed to meet targets.
Next Steps	Address failures (SFT-001 to SFT-004) by implementing recommendations before submission on April 12-14, 2025. If no Salesforce is used, document as a future feature.