

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 Power BI model integrated into "Book A Doc" for visualizing appointment and earnings data.
Scope	Testing the accuracy, load time, and scalability of Power BI dashboards within the project ecosystem.
Team Members	- Param Yadav (22BCY10165) - Testing Lead - Vibhushit Bhat (22BSA10132) - Performance Analyst - Tushar Chahar (22BCY10231) - BI Model Tester - Saurabh Yadav (22BCY10165) - Reviewer

Model Performance Testing Template

Test Scenarios & Results

Test ID	Scenario	Description	Metric	Expected Value	Actual Value	Status
PBT-001	Dashboard Load Time	Load dashboard with 100 appointment records.	Load Time	< 3s	3.5s	Fail
PBT-002	Data Accuracy	Verify appointment counts match database.	Accuracy	100%	98%	Fail
PBT-003	Concurrent User Performance	20 users accessing dashboard simultaneously.	Response Time	< 2s per user	2.2s per user	Fail
PBT-004	Scalability with Data Volume	Test with 1000 records.	Load Time Increase	< 10%	15%	Fail

Test Environment

Component Details

Hardware 16GB RAM, 4-core CPU, 256GB SSD

Component Details

Software Power BI Desktop v2.12, Node.js v18, MongoDB v6, API Connector

Dataset 100 synthetic appointment and earnings records (expandable to 1000)

Observations & Recommendations

Observation	Details
Load Time Exceeded	3.5s exceeds 3s target; may be due to unoptimized queries.
Accuracy Discrepancy	98% accuracy indicates minor data sync issues with MongoDB.
Latency Under Load	2.2s per user exceeds 2s target; server or network bottleneck.
Scalability Issue	15% load time increase with 1000 records suggests performance limits.
Recommendation	Details
Optimization	Optimize Power BI queries and use DirectQuery mode for real-time data.
Data Sync Fix	Ensure API syncs accurately with MongoDB; add validation checks.
Load Balancing	Deploy on AWS with load balancer to handle concurrent users.
Scalability Plan	Upgrade to Power BI Premium for larger datasets and better performance.

Conclusion

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