

FUNCTIONAL AND PERFORMANCE TESTING

Performance Testing

Date	28 June2025
Team ID	LTVIP2025TMID50532
Project Name	Cosmetic Insights : Navigation cosmetics trends and consumer insights using Tableau
Maximum Marks	4 Marks

Model Performance Testing:

S.No.	Parameter	Values
1.	Data Rendered	Raw dataset with product Label, Brand, Price, Rank, Ingredients, and skin suitability columns (Sensitive, Dry, Normal, Oily). ~500+ rows.
2.	Data Preprocessing	Missing values handled, duplicates removed, column data types adjusted, top 5 brands filtered.
3.	Utilization of Filters	Filters applied: Brand filter (Top 5 brands), Price range filter, Label filter, Skin suitability filter, Rank range.
4.	Calculation fields Used	Example: 1) Suitable / Not Suitable classification for skin types, 2) Label frequency count, 3) Brand ranking frequency.
5.	Dashboard design	No of Visualizations / Graphs: 9 Dashboard 1: <i>Product Ranking & Detailed Analysis</i> (Activities 1.1, 1.2, 1.3, 1.8, 1.9)

		Dashboard 2: Product Suitability Overview (Activities 1.4, 1.5, 1.6, 1.7)
6	Story Design	No of Visualizations / Graphs: 9 Combined into 2 Dashboards inside 1 Story for <i>Product Ranking, Detailed Analysis, and Product Suitability Overview</i> .

Key Performance Metrics

Metric	Description
Dashboard Load Time	Time taken for the dashboard to load completely after initial access
Visualization Rendering Time	Time taken to load individual charts or visual components
Filter Response Time	Time taken to reflect results after applying a filter or parameter
Calculated Fields Evaluation	Time spent computing formulas, KPIs, or conditional visuals
Data Volume	Number of rows and columns processed within each worksheet

Test Results Summary

Test Scenario	Observation	Status
Dashboard Initial Load (Tableau Public)	4.2 seconds on average	✅ Pass
Filter Response (e.g., Gender = Female)	1.1 seconds	✅ Pass
Story Scene Switch Time	2.3 seconds between transitions	✅ Pass
Visual Rendering with All Filters Applied	Slight lag on mobile, smooth on desktop	⚠️ Acceptable
Load on Flask Web Page	Fully rendered within 5–6 seconds (including embedded script)	✅ Pass

Recommendations for Optimization

Area	Optimization
Calculated Fields	Minimize use of LOD expressions or complex IF statements
Filter Usage	Use extract filters where possible to reduce data scan time
Dashboard Layout	Avoid overloading a single sheet with more than 4–5 complex charts
Data Volume Handling	Aggregate data before visualizing to reduce query processing