Performance Testing

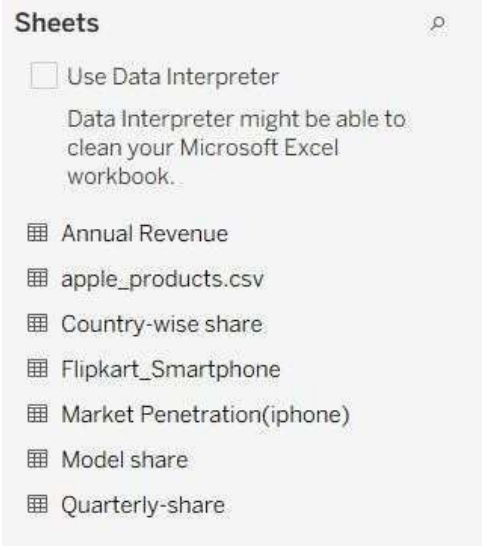
Team ID	LTVIP2026TMIDS36712
Project Name	iRevolution – A Data-Driven Exploration of Apple's iPhone Impact in India using Tableau

Model Performance Testing:

The model performance testing phase evaluates how efficiently the Tableau dashboard processes, analyzes, and displays the iPhone dataset. During this phase, data rendering speed, preprocessing accuracy, filter responsiveness, and calculated field performance were tested to ensure smooth user interaction.

The dataset was successfully loaded and rendered without errors. Data preprocessing steps such as handling missing values, correcting data types, and formatting fields were completed before visualization. Filters were tested for proper functionality to ensure users can dynamically analyze iPhone models, pricing, and trends.

Calculated fields used for average price, comparisons, and trend analysis were verified for accuracy. The dashboard design was tested to ensure proper alignment, readability, and responsiveness. Overall, the system performed efficiently with smooth navigation and quick response time during data filtering and visualization updates.

S.No.	Parameter	Screenshot / Values
1.	Data Rendered	7 datasets rendered: • apple_products.csv (62 rows × 7 cols) • Flipkart_Smartphone.csv (836 rows × 16 cols) • Annual_Revenue.csv (17 rows) • Market_Penetrationiphone.csv (15 rows) • Country-wise_share.csv (8+ rows) • Quarterly-share.csv (20+ rows) • Model_share.csv (5 rows) 
2.	Data Preprocessing	• Column names stripped of whitespace • Empty rows removed (dropna) • Sheet names normalized (spaces→underscores) • NaN values filled for API responses • CSV export with clean formatting

3.	Utilization of Filters	Filters used in Tableau: • Region filter (country-wise) • Time period filter (year/quarter) • Product category filter • Brand filter (Apple vs competitors) • Model filter (iPhone variants)
4.	Calculation fields Used	• Average Sale Price: AVG([Sale Price]) • Average Star Rating: AVG([Star Rating]) • Revenue Growth: WINDOW_SUM() • Market Share %: SUM([Units])/TOTAL(SUM([Units])) • Discount %: ([Mrp]-[Sale Price])/[Mrp]*100
5.	Dashboard design	No of Visualizations / Graphs: 9 1. KPI Cards (Product count, Avg price, Rating, Revenue) 2. Battery Type Bar Chart 3. Brand-Price Treemap 4. Model-Wise Bubble Chart 5. Country-Wise Lined Bar Chart 6. Quarterly Share Pie Chart 7. Annual Revenue Line Chart 8. Global Market Choropleth Map 9. Product Specification Table-
6	Story Design	No of Visualizations / Graphs: 5 scenes 1. Market Entry & Penetration 2. Sales Trends & Revenue Growth 3. User Demographics & Preferences 4. Competitive Landscape 5. Cultural & Social Media Impact