

Project Development Phase
Model Performance Test

Date	23/06/25
Team ID	LTVIP2025TMID51568
Project Name	ToyCraft Tales: Tableau's Vision into Toy Manufacturer Data
Maximum Marks	

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Screenshot / Values
1.	Data Rendered	The dataset used contains historical toy manufacturing data from 2005 to 2016. Key fields include Year, State, Index, and Number of Manufacturers. The original data was provided in CSV format and imported into MySQL for cleaning and preprocessing. Additional derived fields such as Index Bins, Top States, and Annual Aggregates were created to enable effective trend analysis and interactive visualizations in Tableau.
2.	Data Preprocessing	<p>Before importing the data into Tableau, preprocessing was performed using MySQL Workbench. The following steps were executed:</p> <ul style="list-style-type: none">• Removed null or missing values from the dataset.• Renamed columns for consistency and clarity (e.g., Number of Manufacturers retained cleanly).• Created calculated fields such as Index (Bin) to group data for analysis.• Rounded numeric values for visual clarity using ROUND() function in SQL.• Ensured data types were properly assigned for smooth Tableau integration. <p>The final cleaned dataset was either exported as CSV or directly used for visualization in Tableau Desktop.</p>
3.	Utilization of Filters	<p>Multiple filters were implemented in Tableau to enhance interactivity and enable user-driven exploration of toy manufacturing trends. These include:</p> <ul style="list-style-type: none">• Year• State• Index (Bin)• Top N States by Manufacturer Count

		<p>These filters allow users to drill down into specific timeframes, compare regions, and analyze manufacturer distribution patterns more effectively. They also support dynamic updates to all connected charts and dashboards, improving the overall user experience.</p>
4.	Calculation fields Used	<p>Several calculated fields were created in Tableau to support deeper analysis and interactivity across manufacturing trends:</p> <ul style="list-style-type: none"> • Index Bin → Groups the Index field into bins (e.g., size 10) for distribution analysis • Top N States → Ranks states by total number of manufacturers • % of Total → Calculates the percentage contribution of each state or year to the total manufacturers • Running Total → Tracks cumulative manufacturer count over time • Highlight Filter → Used to visually emphasize selected states or bins <p>These calculated fields allow for dynamic visualizations, segmented comparisons, and enhanced storytelling across dashboards and stories.</p>
5.	Dashboard design	

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Story Design

