

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	31 January 2025
Team ID	LTVIP2025TMID47573
Project Name	ToyCraft Tales: Tableau's Vision into Toy Manufacturer Data
Maximum Marks	4 Marks

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Data Integration and Preparation	The system shall connect to various toy manufacturer data sources (e.g., sales, production, consumer demographics).The system shall allow for data cleaning and transformation to ensure data quality.
FR-2	Market Trend Analysis Dashboards	The system shall provide interactive dashboards for visualizing historical sales data over time.The system shall enable identification of emerging market demands and sales patterns across different seasons and holidays (e.g., holiday season, summer).The system shall allow users to filter and drill down into sales data by product category, region, and time period.
FR-3	Consumer Preference Analysis Dashboards	The system shall provide interactive dashboards for analyzing consumer behavior and preferences based on demographic data (e.g., age, gender, location).The system shall visualize how toy preferences vary among different demographic groups (e.g., electronic toys for teenagers in urban areas, traditional toys for younger children in rural areas).The system shall enable filtering by popular toy categories and purchasing patterns.
FR-4	Product Performance Comparison Dashboards	The system shall provide interactive dashboards to compare toy category performance across different regions or countries.The system shall visualize regional differences in demand for specific toy categories (e.g., educational toys in education-focused regions, outdoor toys in favorable weather regions).
FR-5	Interactive Visualization and User Experience	The system shall allow users to interact with visualizations through filters, parameters, and drill-

		down capabilities.The system shall display key performance indicators (KPIs) relevant to market trends, production, and consumer preferences.
FR-6	Export and Reporting Capabilities	The system shall allow users to export dashboards or data to various formats (e.g., PDF, image, CSV).The system shall support printing of dashboards for reporting purposes.

### Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The Tableau dashboards shall be intuitive and easy for product managers and other stakeholders to navigate and understand, even without extensive technical knowledge. The visualizations shall be clear, concise, and effectively convey insights.
NFR-2	<b>Security</b>	Access to the Tableau dashboards and underlying data shall be secured to prevent unauthorized access. User roles and permissions shall be implemented to ensure data confidentiality and integrity.
NFR-3	<b>Reliability</b>	The Tableau dashboards shall consistently display accurate data and perform as expected without frequent errors or crashes. Data connections shall be stable and maintain integrity during data refresh cycles.
NFR-4	<b>Performance</b>	The dashboards shall load and refresh quickly, typically within 5-10 seconds for standard views, even with large datasets, to ensure a smooth user experience and efficient decision-making. Complex calculations and visualizations should not significantly impede performance.
NFR-5	<b>Availability</b>	The Tableau dashboards shall be accessible to authorized users whenever needed, with minimal downtime. The underlying Tableau Server (if applicable) and data sources should be highly available.
NFR-6	<b>Scalability</b>	The Tableau solution shall be able to handle increasing volumes of data and a growing number of users without significant degradation in performance. The design should allow for the

		addition of new data sources or reports as business needs evolve.
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