

Project Design Phase-II

Data Flow Diagram & User Stories

Date	13 FEB 2026
Team ID	LTVIP2026TMIDS85654
Project Name	ToyCraft Tales: Tableau's Vision into Toy Manufacturer Data
Maximum Marks	4 Marks

Data Flow Diagrams:

1. Raw Dataset

- Input Sources:
 - Inventory records, production logs, customer orders, supplier databases
- Contents:
 - Raw data about toy models, materials, production dates, delivery times, defects, pricing, customer feedback, etc.

2. Data Cleaning & Preprocessing

- Tools Used:
 - Python (data formatting, missing values)
 - Excel (initial cleanup and sorting)
 - Tableau Prep (merge & filter data from multiple sources)
- Processes Include:

- Removing duplicates or errors
 - Formatting dates, prices, categories
 - Filtering out irrelevant data
 - Merging production and customer records for better insights
-






3. Processed Dataset

- State:
 - Clean and structured manufacturing data, ready for analysis
 - Characteristics:
 - Organized, reliable, and meaningful
 - Attributes like product type, defect rate, region-wise demand, delivery delays
-

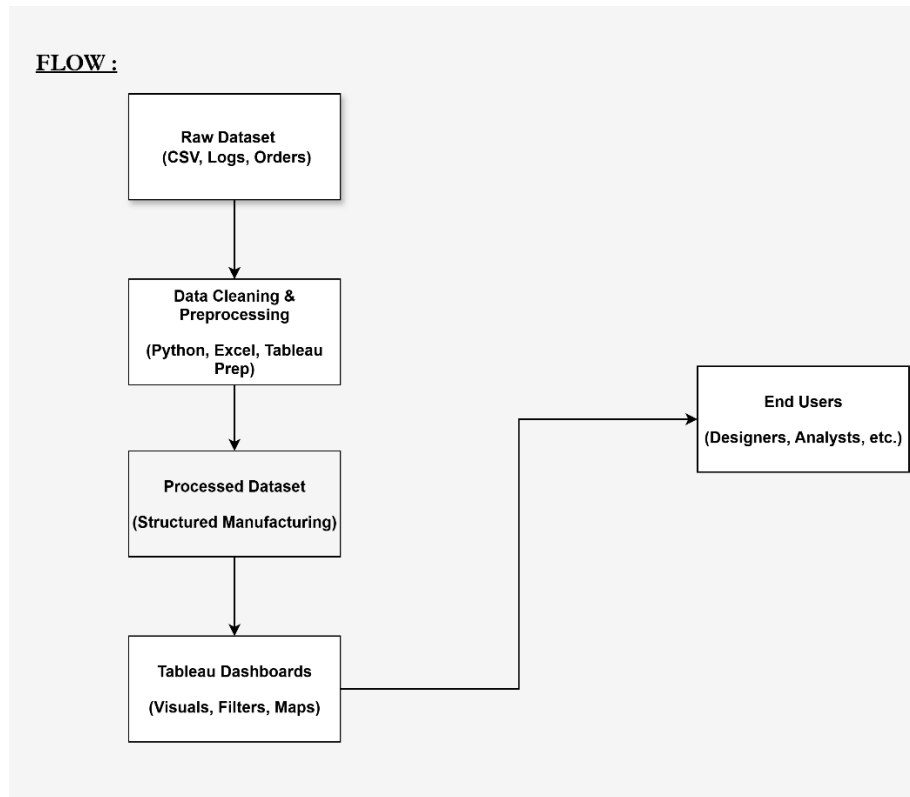
4. Tableau Dashboards

- Contents:
 - Visuals: Line graphs, bar charts, heat maps, KPIs
 - Filters: Toy type, factory location, price range, quality rating
 - Maps: Sales distribution, production efficiency by region
- Purpose:
 - Turn raw manufacturing data into interactive, visual insights for business teams

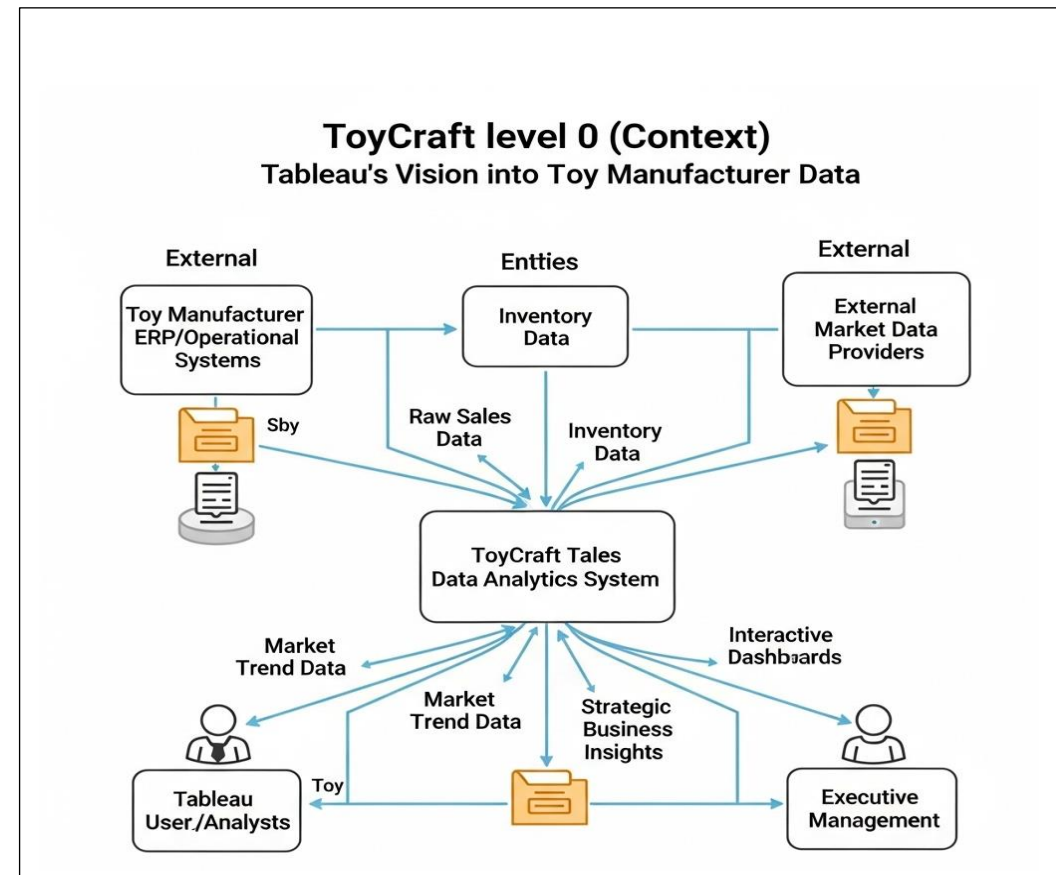
5. End Users

- Types of Users:
 -  Toy Designers – analyze customer preferences
 -  Production Managers – track delays, improve processes
 -  Marketing Teams – study sales trends by location
 -  Distributors – plan inventory based on demand
 -  Business Analysts – forecast production and profit
- Interaction:
 - All users explore insights using Tableau dashboards

Example: (Simplified)



Example: DFD Level 0 (Industry Standard)



User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Sales Analyst	Sales Performance Monitoring	USN-1	As a Sales Analyst, I can view overall sales performance by product, region, and time period.	I can see total sales revenue, units sold, and average selling price.	High	Sprint-1
				I can filter data by product category, geographic region, and date range.		
		USN-2	As a Sales Analyst, I can analyze sales trends over time to identify growth or decline.	I can view line charts showing sales trends monthly, quarterly, and annually.	High	Sprint-1
				I can compare current period sales against previous periods.		
		USN-3	As a Sales Analyst, I can identify top-performing and underperforming products.	I can view bar charts ranking products by sales volume and revenue.	High	Sprint-2
				I can drill down into product details to see individual SKU performance.		
Inventory Manager	Inventory Optimization	USN-4	As an Inventory Manager, I can view current inventory levels across all warehouses.	I can see stock quantities for each product SKU at each warehouse location.	High	Sprint-1
				I can identify products with low stock levels.		

		USN-5	As an Inventory Manager, I can track inventory turnover rates.	I can view inventory turnover ratios for different product categories. I can identify slow-moving or obsolete inventory.	High	Sprint-2
Production Planner	Production Efficiency	USN-6	As a Production Planner, I can monitor production volumes by product line and factory.	I can view daily, weekly, and monthly production output. I can filter data by specific production lines or manufacturing facilities.	High	Sprint-2
		USN-7	As a Production Planner, I can identify bottlenecks or inefficiencies in the production process.	I can view data on production cycle times and machine utilization rates. I can compare actual production against planned production targets.	Medium	Sprint-3
Marketing Manager	Marketing Campaign ROI	USN-8	As a Marketing Manager, I can assess the impact of marketing campaigns on sales.	I can view sales data correlated with specific marketing campaign periods. I can compare sales before, during, and after a campaign.	High	Sprint-3
		USN-9	As a Marketing Manager, I can analyze customer demographics associated with product purchases.	I can view customer age groups, locations, and other demographic data linked to popular products.	Medium	Sprint-4
Executive/CEO	Overall Business Performance	USN-10	As an Executive, I can view a high-level overview of key business performance indicators (KPIs).	I can see dashboards with summarized sales, profit margins, inventory health, and customer satisfaction.	High	Sprint-1

				I can quickly identify areas requiring attention.		
		USN-11	As an Executive, I can compare actual performance against budget and strategic goals.	I can view variances between actual and budgeted figures for key metrics. I can assess progress towards long-term strategic objectives.	High	Sprint-2
Data Administrator	Data Management & Quality	USN-12	As a Data Administrator, I can monitor the data refresh status and data quality.	I can see the last successful data refresh timestamp for all data sources. I can view reports on data quality issues or anomalies.	High	Sprint-1
		USN-13	As a Data Administrator, I can manage user access to specific dashboards and data sets.	I can assign or revoke user permissions for different Tableau workbooks. I can view a list of all users and their assigned roles.	Medium	Sprint-2