Project Design Phase-II
Data Flow Diagram & User Stories

Date	31 January 2025
Team ID	LTVIP2025TMID48331
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

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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

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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)

FLOW :

Raw Dataset
(CSV, Logs, Orders)
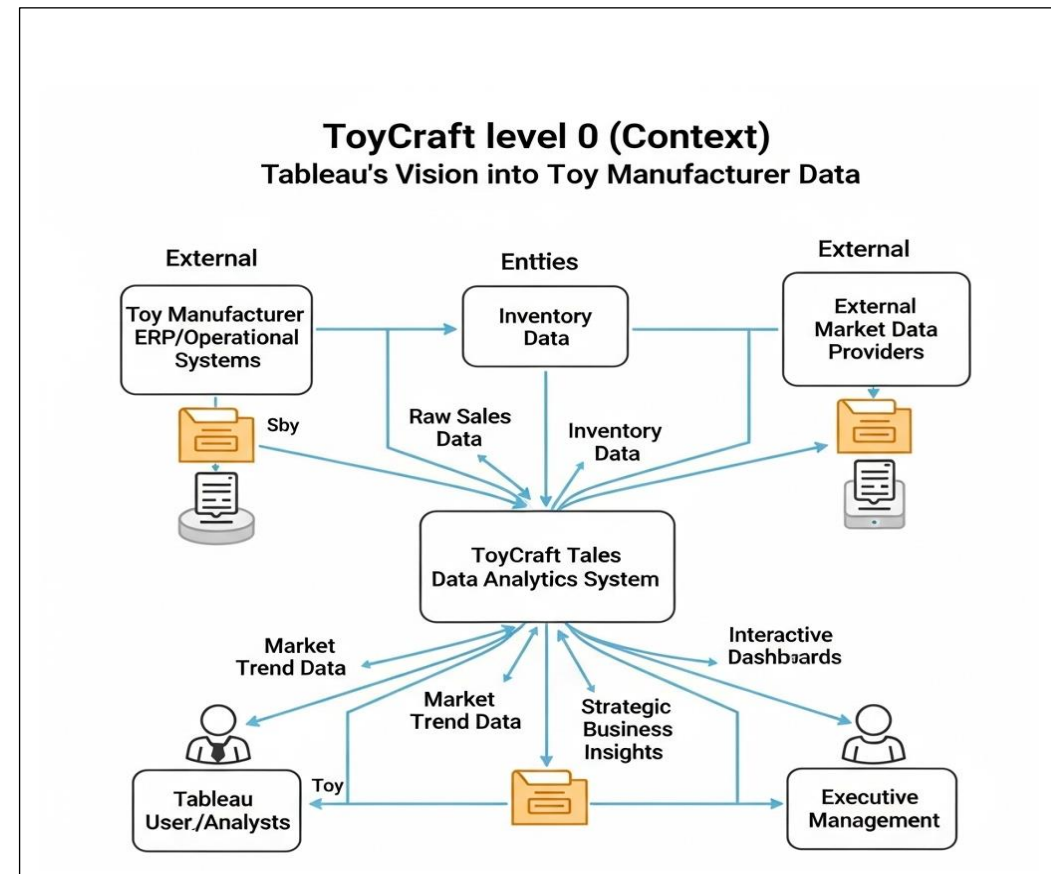
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Data Cleaning &
Preprocessing

(Python, Excel, Tableau
Prep)

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Processed Dataset

(Structured Manufacturing)

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Tableau Dashboards

(Visuals, Filters, Maps)

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End Users

(Designers, Analysts, etc.)
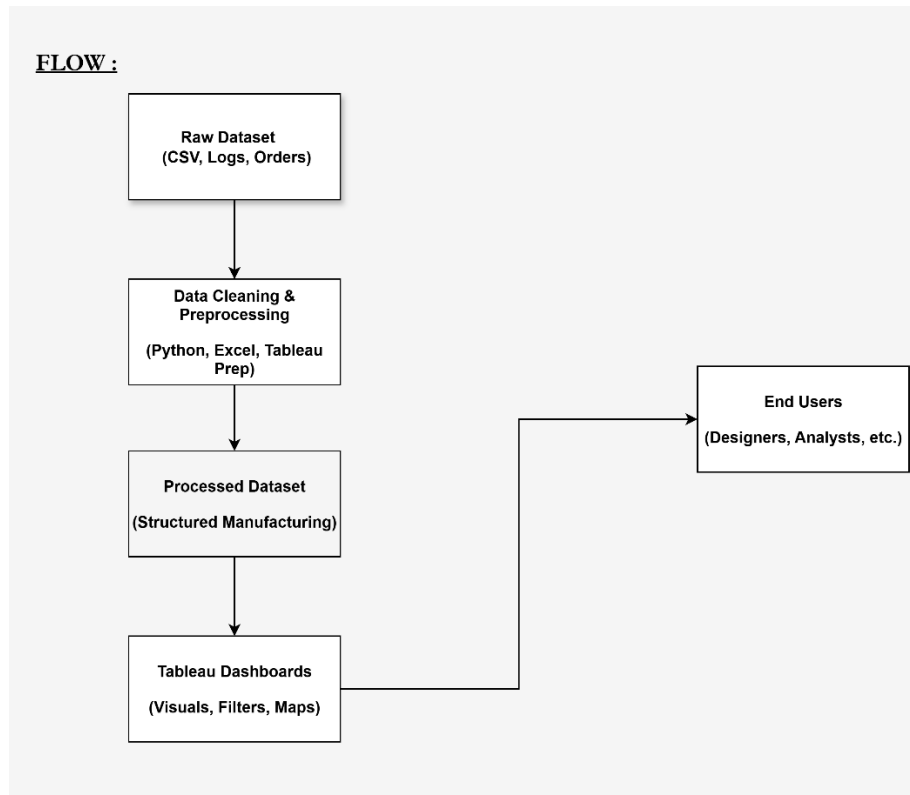
Example: DFD Level 0 (Industry Standard)

ToyCraft level 0 (Context)
Tableau's Vision into Toy Manufacturer Data

External

Toy Manufacturer
ERP/Operational
Systems

Entties

Inventory
Data

External

External
Market Data
Providers

Sby

Raw Sales
Data

Inventory
Data

ToyCraft Tales
Data Analytics System

Market
Trend Data

Interactive
Dashboards

Market
Trend Data

Strategic
Business
Insights

Tableau
User./Analysts

Toy

Executive
Management

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. I can filter data by product category, geographic region, and date range.	High	Sprint-1
		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. I can compare current period sales against previous periods.	High	Sprint-1
		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. I can drill down into product details to see individual SKU performance.	High	Sprint-2
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. I can identify products with low stock levels.	High	Sprint-1

				I can view inventory turnover ratios for different product categories.	High	Sprint-2
		USN-5	As an Inventory Manager, I can track inventory turnover rates.	I can identify slow-moving or obsolete inventory.		
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.	High	Sprint-2
				I can filter data by specific production lines or manufacturing facilities.		
		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.	Medium	Sprint-3
				I can compare actual production against planned production targets.		
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.	High	Sprint-3
				I can compare sales before, during, and after a campaign.		
		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.	High	Sprint-2
				I can assess progress towards long-term strategic objectives.		
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.	High	Sprint-1
				I can view reports on data quality issues or anomalies.		
		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.	Medium	Sprint-2
				I can view a list of all users and their assigned roles.		

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