

# Toy Craft Tales — Tableau's Vision into Toy Manufacturing Data Flow

## 1. Data Sources

- Production records (units produced, defects, batch numbers)
- Sales data (region, product, revenue)
- Inventory data (stock levels, warehouse data)
- Supplier data (raw materials, delivery time)
- Customer feedback and ratings
- Cost and profit reports
- CSV, Excel, and Database files

## 2. Data Collection Layer

- ERP systems
- Manufacturing logs
- Sales systems
- Excel sheets
- Online databases
- Machine or IoT data (if available)

## 3. Data Preparation and Cleaning

- Remove duplicate records
- Handle missing values
- Correct invalid entries
- Standardize product names
- Convert formats such as dates and currency
- Merge multiple datasets
- Tools used: Excel, SQL, Python, Tableau Prep

## 4. Data Transformation

- Join production, sales, and inventory tables
- Create calculated fields like profit margin and defect rate
- Create categories such as toy type and age group
- Aggregate metrics monthly, quarterly, and yearly

## 5. Data Loading into Tableau

- Import prepared dataset into Tableau Desktop or Tableau Public
- Use live connection or extract mode

## 6. Data Modeling in Tableau

- Create relationships between tables using IDs
- Define measures and dimensions

## **7. Visualization Layer**

- Production volume by toy type charts
- Sales trend analysis
- Best selling toys dashboard
- Defect rate dashboard
- Profitability by product
- Regional performance maps

## **8. Insights and Decision Support**

- Identify high demand toys
- Detect production issues
- Optimize inventory levels
- Improve supplier performance
- Reduce defects
- Increase profitability

## **9. Publishing and Sharing**

- Publish to Tableau Server or Tableau Cloud
- Share through Tableau Public
- Export as PDF or images
- Embed reports in portals