Project Report Format

1. INTRODUCTION:

1.1 Project Overview:

“ToyCraft Tales: Tableau's Vision into Toy Manufacturer Data” is a data visualization project focused on analyzing toy manufacturing and sales data using Tableau. It provides insightful dashboards and interactive visuals that help manufacturers, distributors, and stakeholders make data-driven decisions regarding product design, sales trends, supply chain efficiency, and consumer preferences.

1.2 Purpose:

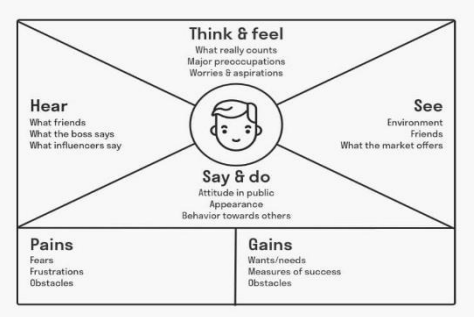
In the highly competitive toy industry, understanding market demand, seasonal trends, inventory flow, and product performance is essential. This project aims to transform raw toy manufacturing data into meaningful insights that support smarter business strategies through Tableau's intuitive visual analytics.

2. IDEATION PHASE:

2.1 Problem Statement:

Toy manufacturers often struggle with fragmented data across production, logistics, and sales departments. This project aims to create a unified, visual platform in Tableau to monitor: Sales performance by region, Inventory turnover, Popular toy categories and seasonal trends, Supply chain bottlenecks.

2.2 Empathy Map Canvas:



2.3 Brainstorming:

Key questions considered:

- Which toys perform best during specific seasons?

- What is the product return rate and why?

- How can we improve stock planning for holidays?

- Can we predict future toy trends from past data?

3. REQUIREMENT ANALYSIS:

3.1 Customer Journey map:

Toy idea → Design & Production → Distribution → Consumer purchase → Feedback & Return

Emotions: Excitement → Stress → Relief → Loyalty

Pain Points: Overstocking, delays, unclear demand signals

3.2 Solution Requirement:

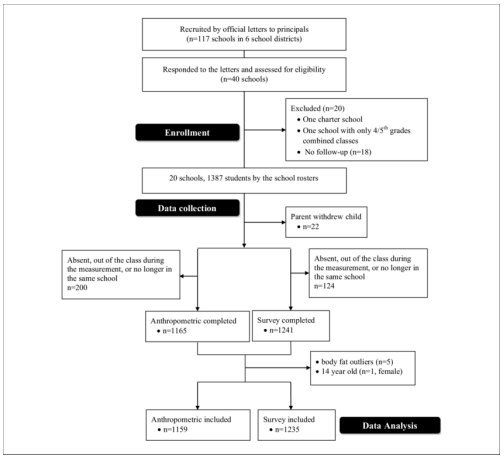
Reflect **real customer touchpoints** (e.g., discovery, purchase, usage, feedback).

Highlight **pain points and drop-offs** (e.g., during checkout or delivery).

Show **moments of delight** that lead to loyalty (e.g., product satisfaction, positive reviews).

Enable **personalized insights** to improve engagement strategies.

3.3 Data Flow Diagram:



3.4 Technology Stack:

1. Data Sources

- Excel / CSV files – for initial data
- ERP / CRM Systems – for sales, inventory, customer data
- Google Analytics / Website logs – for online behavior

2. Data Preparation

- Microsoft Excel / Google Sheets – quick cleaning or merging
- Tableau Prep – to clean, join, and format data before analysis

3. Data Visualization

- Tableau Desktop – for creating interactive dashboards
- Tableau Public / Server – to publish and share dashboards

4. Optional Tools

- Python / R (optional) – for advanced analytics or forecasting
- PowerPoint / Canva – for storytelling and presentation design

4. PROJECT DESIGN:

4.1 Problem Solution Fit:

The Problem

Toy manufacturers face challenges such as:

- Scattered and unorganized data across sales, inventory, and customer feedback.
- Limited visibility into the customer journey and pain points.
- Difficulty in identifying market trends, best-selling products, or customer behavior.
- Slow or uninformed decision-making due to lack of real-time insights.

💡 The Solution: ToyCraft Tales (with Tableau)

- A centralized Tableau dashboard system that:
    - Integrates data from different sources (sales, inventory, customer feedback).
    - Maps the full customer journey to reveal insights at each touchpoint.
    - Provides clear, interactive visualizations for different departments.
    - Supports data-driven decisions in marketing, sales, and product strategy.
- User Need: Teams need fast, visual, and actionable data insights.
- ToyCraft Tales Provides: A story-driven, intuitive Tableau solution tailored to toy manufacturer data.
- It transforms raw data into strategy through visuals, journey mapping, and storytelling.

4.2 Proposed Solution:

ToyCraft Tales is a Tableau-based dashboard system that helps toy manufacturers:

- Understand the full **customer journey**
- Track **sales**, **inventory**, and **product performance**
- Segment customers for better marketing
- Forecast trends using past data

It turns complex data into easy visuals for faster, smarter decisions.

4.3 Solution Architecture:

Technical Architecture:

5. PROJECT PLANNING & SCHEDULING:

5.1 Project Planning:

Week 1 – Collect and clean data

Week 2 – Design dashboard layout

Week 3 – Build Tableau dashboards

Week 4 – Test and improve

Week 5 – Final presentation/report

6. FUNCTIONAL AND PERFORMANCE TESTING:

6.1 Performance Testing:

Dashboard Load Time – Ensure dashboards open quickly (under 5 seconds).

Filter Response – Check that filters and interactions work smoothly.

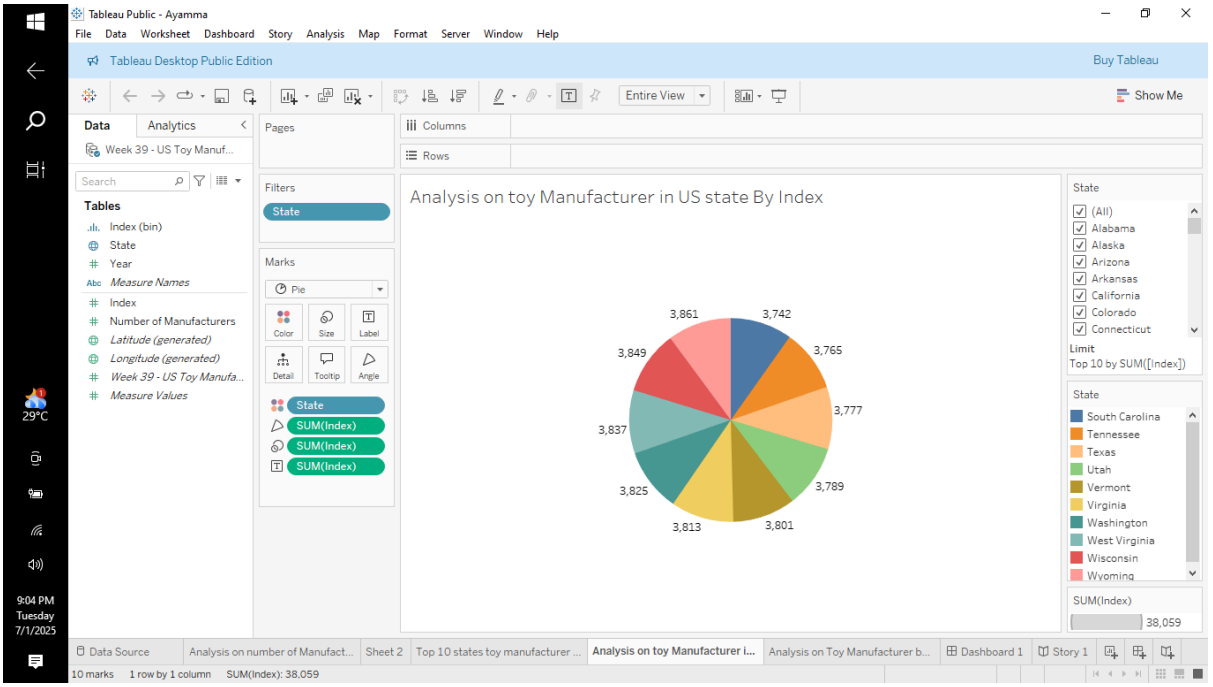
Data Refresh – Test how fast data updates in Tableau after changes.

Device Compatibility – View dashboards on laptop, tablet, and mobile.

User Feedback – Ask users if the dashboard is clear and responsive.

7. RESULTS:

7.1 Output Screenshots: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SUM(Index)
SUM(Index)
SUM(Index)
Analysis on toy Manufacturer in US state By Index
3,861
3,742
3,765
3,849
3,777
3,837
3,789
3,825
3,801
3,813
State
(All)
Alabama
Alaska
Arizona
Arkansas
California
Colorado
Connecticut
Limit
Top 10 by SUM([Index])
State
South Carolina
Tennessee
Texas
Utah
Vermont
Virginia
Washington
West Virginia
Wisconsin
Wyoming
SUM(Index)
38,059
Data Source
Analysis on number of Manufact...
Sheet 2
Top 10 states toy manufacturer ...
Analysis on toy Manufacturer i...
Analysis on Toy Manufacturer b...
Dashboard 1
Story 1
10 marks
1 row by 1 column
SUM(Index): 38,059
29°C
9:04 PM
Tuesday
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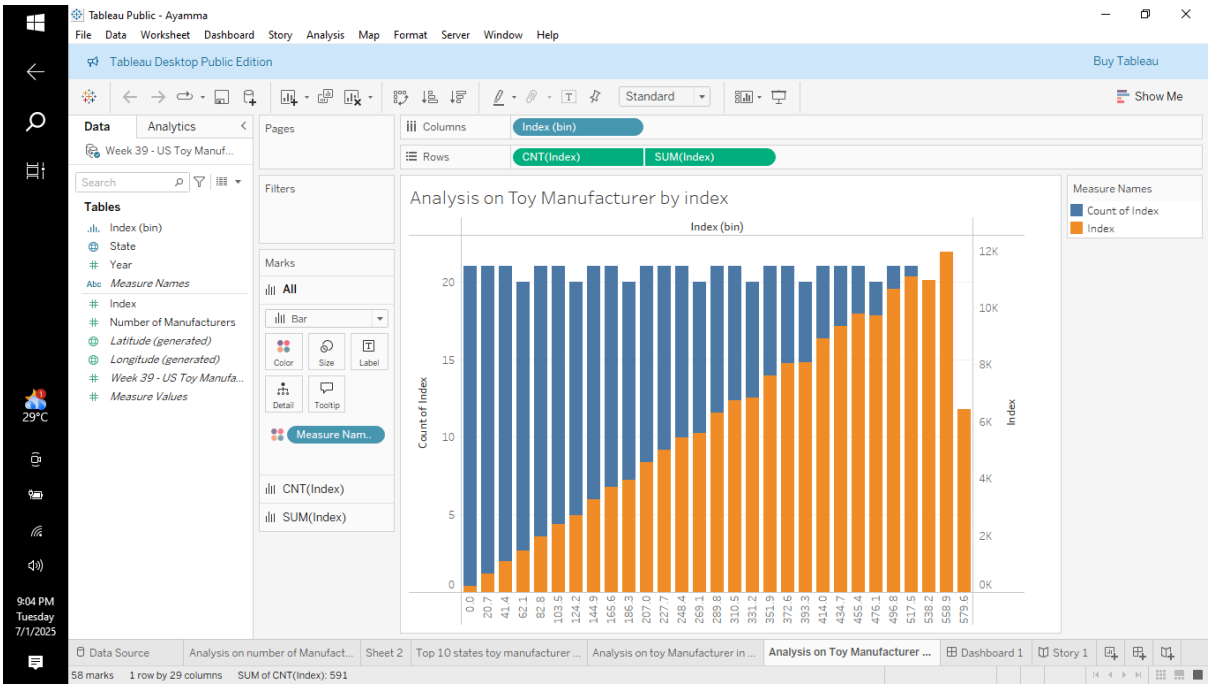
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Index
Data Source
Analysis on number of Manufact...
Sheet 2
Top 10 states toy manufacturer ...
Analysis on toy Manufacturer in ...
Analysis on Toy Manufacturer ...
Dashboard 1
Story 1
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SUM of CNT(Index): 591
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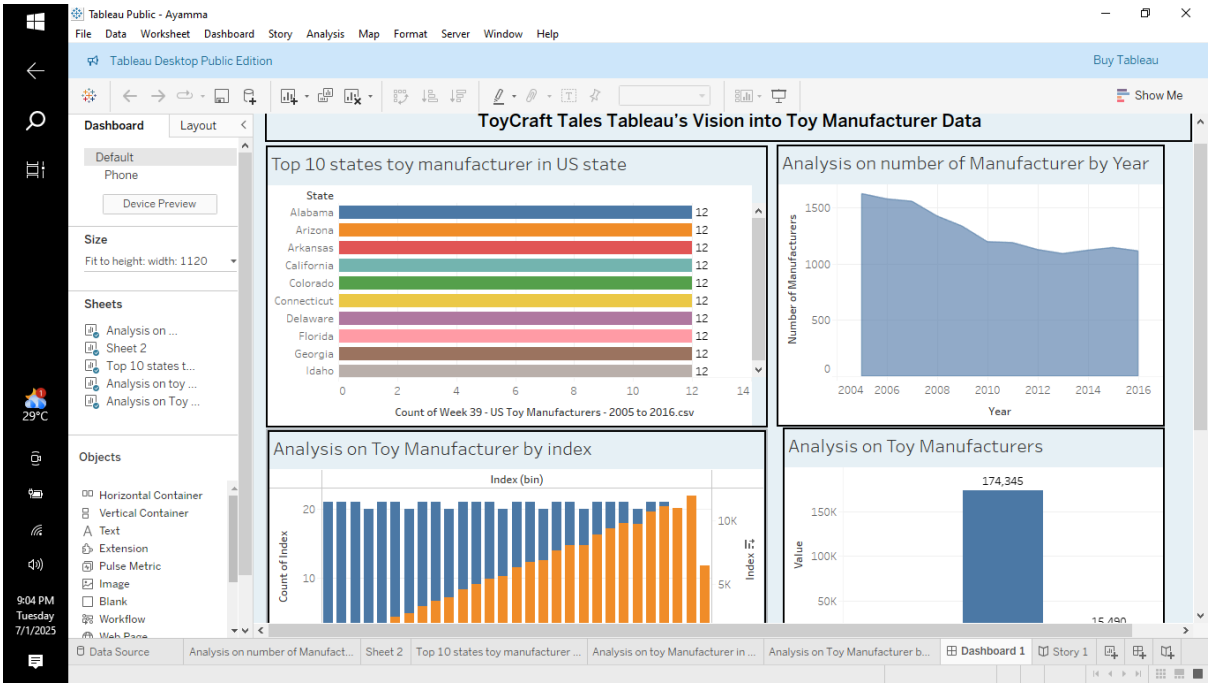
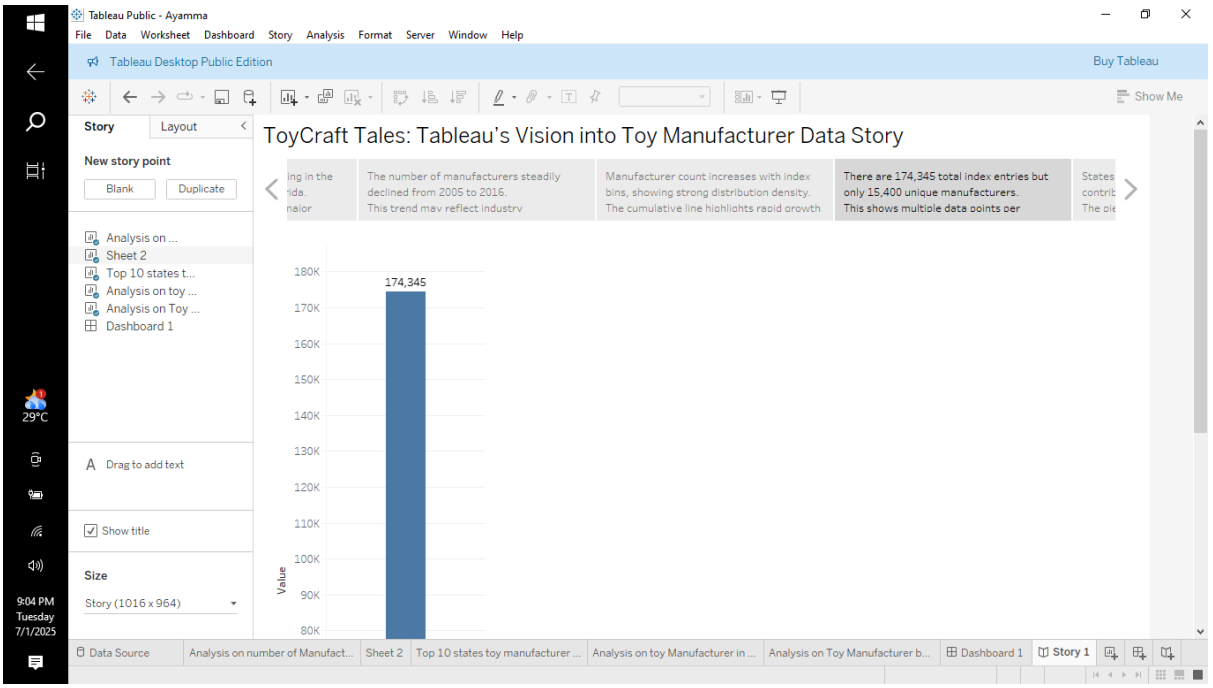
7/1/2025





8. ADVANTAGES & DISADVANTAGES:

8.1. Advantages:

- Data-driven decision making
- Visual clarity for non-technical users
- Real-time insights for faster action
- Customizable reports for each department

8.2. Disadvantages:

- Initial setup cost and training
- Tableau licensing (if not using Tableau Public)
- Dependence on data cleanliness and ETL accuracy

9. CONCLUSION:

ToyCraft Tales demonstrates how powerful visual storytelling through Tableau can elevate decision-making in the toy manufacturing sector. By combining real-time data with strategic dashboards, companies can better forecast trends, optimize production, and meet market demand more effectively.

10. FUTURE SCOPE:

Integration with external market trend APIs

- Machine learning models for predictive sales forecasting
- Mobile dashboards for on-the-go analytics
- Sentiment analysis from customer reviews
- Automated weekly report generation for stakeholders

11. APPENDIX:

Phase	Duration	Key Activities
Data Collection	week 1	Surveys, focus groups, and analysis of current offerings.
Data Visualisation	week 1	Collaborate with nutritionists and chefs to create menu.
Application Development	week 2	Develop and test the mobile app.
Tableau Execution	week 2-3	Create promotional materials and organize events.
Program Conclusion	week 3-4	Implement new menu and app; train staff.
Feedback and Improvement	week 4	Collect feedback and make adjustments.

Source Code:

Dataset Link:

GitHub & Project Demo Link: