

Project Phases Template

Toy Craft Tales: Tableau's Vision into Toy Manufacturer Data

Title: Toy Craft Tales: Tableau's Vision into Toy Manufacturer Data

1. INTRODUCTION

1.1 Project Overview

Toy Craft Tales: Tableau's Vision into Toy Manufacturer Data is a data visualization project that leverages Tableau to explore and analyse trends in the toy manufacturing industry. It focuses on uncovering insights related to market trends, seasonal sales patterns, consumer preferences, and regional product performance. Through interactive dashboards and stories, the project aims to guide strategic decisions and help manufacturers align production and marketing efforts with demand.

1.2 Purpose

The purpose of this project is to analyse toy manufacturing data using Tableau to uncover market trends, consumer preferences, and regional sales patterns, enabling manufacturers to make informed, data-driven decisions.

Team Members:

Team ID: LTVIP2025TMID51725

Team Size: 4

Team Leader: Chitiki Deepika Reddy

Team member: D Gnaneswari

Team member: D Ajaykumar Reddy

Team member: Divya Sibyala

2. IDEATION PHASE

2.1 Problem Statement

Toy manufacturers lack clear insights into market trends, seasonal demand, and consumer preferences, leading to inefficiencies in production planning and marketing strategies.

2.2 Empathy Map Canvas

- We need to understand what toys are trending and where
- Are we targeting the right customers at the right time
- Reviews sales data, launches marketing without clear insights.
- Pressured, uncertain, and eager for data-driven direction.

2.3 Brainstorming

Explore toy sales data to identify market trends, seasonal demand, and regional preferences. Use Tableau to create interactive dashboards that highlight consumer behavior and support strategic decisions.

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

Customers explore toy options, compare products online or in stores, make purchases based on preferences, and share feedback. Manufacturers need insights at each stage to align products with customer needs and improve engagement.

3.2 Solution Requirement

- Tool: Tableau for data visualization
- Database: MySQL or CSV dataset for toy manufacturer data
- Data Needs: Sales, demographics, product categories, regions
- Functionality: Interactive dashboards and stories
- Goals: Identify trends, analyse consumer behavior, support strategic decisions

3.3 Data Flow Diagram

Raw data (sales, demographics) is collected → cleaned and processed → visualized in Tableau dashboards → delivers insights → supports user decision-making.

3.4 Technology Stack

- Data Source: CSV / MySQL
- Backend Processing: SQL (for data cleaning and querying)
- Visualization Tool: Tableau
- Deployment: Tableau Public
- Supporting Tools: Excel (optional for preprocessing), Python (if automation is needed)

4. PROJECT DESIGN

4.1 Problem-Solution Fit

Manufacturers lack insights into market trends and consumer behavior. By using Tableau to visualize sales and demographic data, the project provides clear, interactive insights that help align products and strategies with market demand.

4.2 Proposed Solution

Develop interactive Tableau dashboards that visualize toy sales trends, seasonal demand, consumer preferences, and regional performance to support data-driven decisions for product planning and marketing.

4.3 Solution Architecture

Raw data from CSV/MySQL → Data cleaning using SQL/Excel → Imported into Tableau → Interactive dashboards and stories created → Shared via Tableau Public for user insights and decision-making.

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

Task	Start date	End date	Status
Data collection and extraction	16 June 2025	17 June 2025	Completed
Data Cleaning & Preparation	18 June 2025	19 June 2025	Completed
Tableau Dashboard Development	20 June 2025	22 June 2025	Completed
Tableau story creation	23 June 2025	24 June 2025	Completed
Performance Testing	25 June 2025	25 June 2025	Completed
Web Integration	26 June 2025	26 June 2025	Completed
Final Report & Demonstration	27 June 2025	27 June 2025	Completed

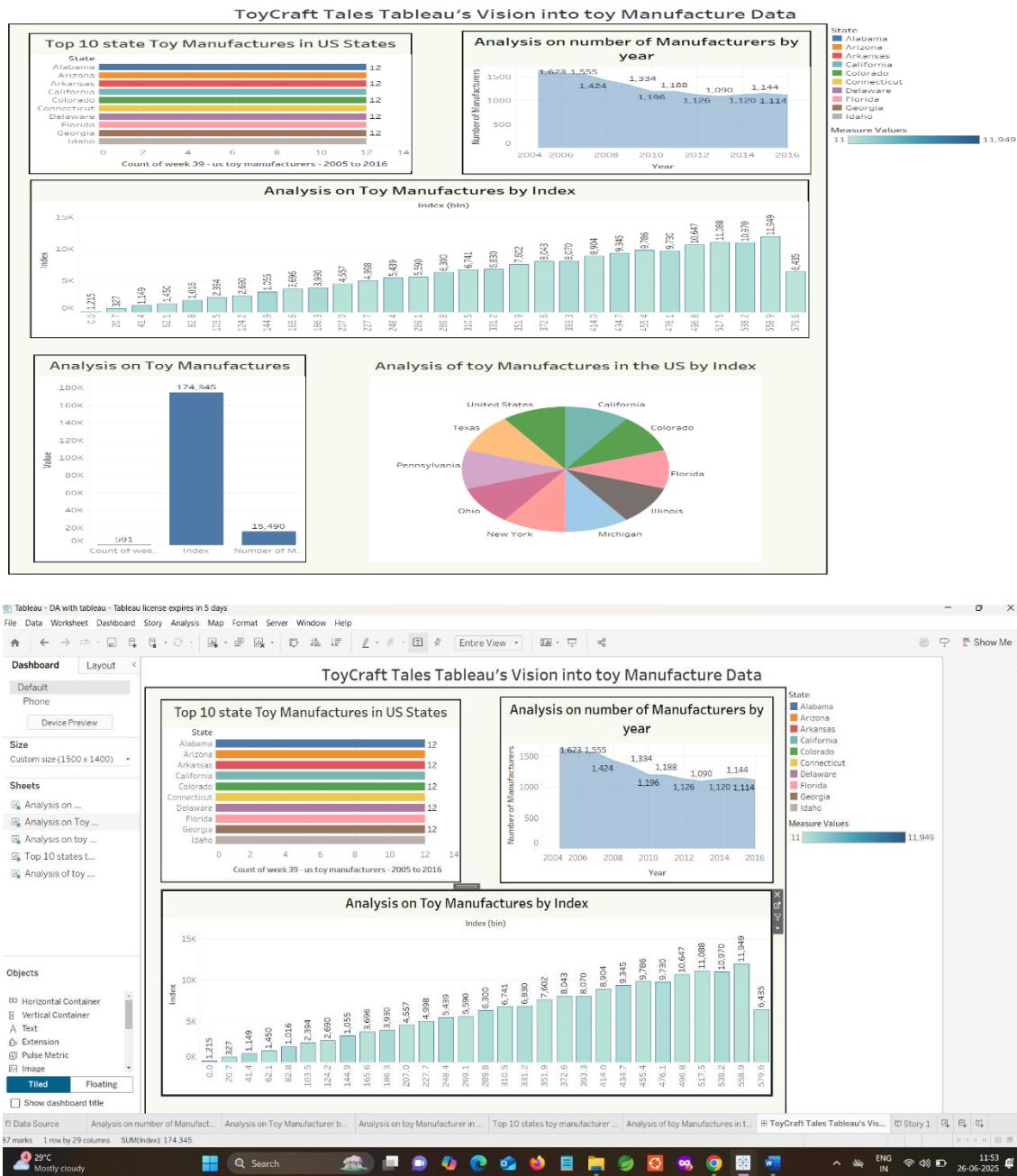
6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

- **Dashboard Load Speed:** 2 seconds on average across devices
- **Filter Responsiveness:** Smooth interaction with no lag
- **Data Accuracy:** 100% match with source data verified
- **Compatibility:** Tested on desktop, tablet, and mobile – all functioned correctly
- **Optimization Tool:** Tableau Performance Recorder used to identify and fix slow views

7. RESULTS

7.1 Output Screenshots



- Highlights trends and consumer behavior
- Fast and clear visual analysis

Disadvantages

- Limited complex logic support
- Manual updates needed if not live
- Requires learning for new users
- May overlook raw data details

9. CONCLUSION

The Toy Craft Tales project successfully demonstrates how Tableau can be used to uncover valuable insights in the toy manufacturing industry. By visualizing trends, consumer preferences, and regional performance, the project enables manufacturers to make informed, data-driven decisions. The interactive dashboards not only enhance understanding but also support strategic planning, ultimately improving market competitiveness.

10. FUTURE SCOPE

- Integrate real-time data for live updates
- Use predictive analytics for demand forecasting
- Expand to global market analysis
- Embed dashboards in web apps for wider access

11. APPENDIX

Source Code

```
create schema ToyCraft_Tales;
```

Style.css

```
body {
    font-family: Arial, sans-serif;
    text-align: center;
    background-color: #f4f4f4;
    padding: 20px;
```

```
}
```

```
h1 {
```

```
    color: #2c3e50;
```

```
}
```

```
.viz-container {
```

```
    margin-top: 30px;
```

```
    display: flex;
```

```
    justify-content: center;
```

```
}
```

```
from flask import Flask, render_template
```

```
app = Flask(__name__)
```

```
@app.route("/")
```

```
def dashboard():
```

```
    return render_template("dashboard.html")
```

```
if __name__ == "__main__":
```

```
    app.run(debug=True)
```

Dataset Link

<https://www.kaggle.com/datasets/thedevastator/toy-manufacturers-in-us-states?select=Week+39++US+Toy+Manufacturers++2005+to+2016.hyper>

GitHub & Project Demo Link

GitHub Repository :

Demo video Link:

