

# Project Report

---

## 1. INTRODUCTION

### 1.1 Project Overview

This project uses Tableau to visualize toy manufacturing data and reveal business insights.

### 1.2 Purpose

The goal is to build dashboards that help identify underperforming toy categories.

---

## 2. IDEATION PHASE

### 2.1 Problem Statement

How can we find underperforming toy categories to improve inventory and production?

### 2.2 Empathy Map Canvas

Parents want safe, educational toys; they see ads, compare products, and value happy children.

### 2.3 Brainstorming

The team generated ideas around toy sales, returns, stock levels, and seasonal trends.

---

## 3. REQUIREMENT ANALYSIS

### 3.1 Customer Journey Map

Customers see ads, explore options, purchase toys, use them, and give feedback.

### 3.2 Solution Requirements

We need filters, sales-inventory comparison, and category insights in dashboards.

### 3.3 Data Flow Diagram

Data flows from CSV files to Tableau through cleaning and visualization.

### 3.4 Technology Stack

We used Tableau, Excel, and optionally Python for preprocessing.

---

## **4. PROJECT DESIGN**

### **4.1 Problem Solution Fit**

The dashboards reveal weak toy categories to improve stock planning.

### **4.2 Proposed Solution**

Dashboards include sales trends, inventory heatmaps, and category filters.

### **4.3 Solution Architecture**

Users interact with Tableau dashboards powered by cleaned toy data.

---

## **5. PROJECT PLANNING & SCHEDULING**

### **5.1 Project Planning**

The project included four weekly stages: data prep, brainstorming, building, and testing.

---

## **6. FUNCTIONAL AND PERFORMANCE TESTING**

### **6.1 Performance Testing**

Dashboards were tested for speed, filter response, and visual clarity.

---

## **7. RESULTS**

### **7.1 Output Screenshots**

Dashboards show sales by toy category, inventory heatmaps, and trends by month.

---

## **8. ADVANTAGES & DISADVANTAGES**

Advantages include clarity and interactivity; disadvantages depend on data quality.

---

## **G. CONCLUSION**

The dashboards helped find low-performing toys and guided better planning.

---

## **10. FUTURE SCOPE**

Future ideas include real-time data, forecasting, and customer sentiment analysis.

---

## **11. APPENDIX**

The appendix includes data samples, team roles, empathy maps, and brainstorming notes.