

# Final Project Report Template

## 1. Introduction

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

is a comprehensive project aimed at exploring the rich dataset of UNESCO World Toy Craft Tales Sites using Tableau. This project focuses on visualizing the distribution, trends, and key attributes of these sites to provide valuable insights. By leveraging the power of data visualization, stakeholders can gain a deeper understanding of the global Toy Craft landscape, identify patterns, and make informed decisions to enhance the preservation and promotion of these sites.

### 1.1. Project overviews

The dataset contains Transformed Toy Craft data and records including states, regions and category. There are a total of 22 columns, out of which Toy Craft can be supposedly taken as a variable. This project, "Toy Craft Tales : Tableau's Vision Into Toy Manufacturer Data ," aims to explore and analyze using the Transformed Toy Craft Tales dataset from Kaggle.

By leveraging the power of data visualization, stakeholders can gain a deeper understanding of the global toy craft landscape, identify patterns, and make informed decisions to enhance the preservation and promotion of these sites. The analysis will help in making data-driven decisions for stack Holders,.

### 1.2. Objectives

- Identify **key factors** influencing Toy Craft Sites by Country.
- Analyze the **effect of Sites at risk** on Toy Craft sites .
- Create **interactive Tableau dashboards** to present findings effectively.

## **2. Project Initialization and Planning Phase**

### **2.1. Define Problem Statement**

<b>Problem Statement (PS)</b>	<b>I am (Customer )</b>	<b>I'm trying to</b>	<b>But</b>	<b>Because</b>	<b>Which makes me feel</b>
PS-1	The Global Studies Student	Research on Toy Craft sites	It has interactive Platform	Most academic data is too fragmented or static	Stuck and overwhelmed when i want to be curious and analytics
PS-2	A regional coordinator	Identify which countries and regions need increased support for their at risk- toy craft sites	Fail to highlight comparative urgency across the globe.	Limited dashboards-based visibility	Frustrated that resource may not be going where they're most needed.
PS-3	UX designer	Craft visual stories That inspire global audience to care	Raw data lacks structure and doesn't translate easily into engaging visuals	Disconnect between the richness of history and how it's presented digitally.	Creatively blocked and disconnected from the emotional core of the mission
PS-4	Journalist	Reveal long-term cultural trends	Insights aren't easily discoverable	Most dashboards aren't built with storytelling	Missing the chance to turn facts into something impactful

## 2.2. Project Proposal (Proposed Solution)

### Project Overview:

Objective	The primary objective of this project is to analyze and visualize Toy Craft Tales: Tableau's Vision Into Toy Manufacturer Data Sites using Tableau. The Project aims to provide insights into Toy Craft Sites by Country
Scope	<ul style="list-style-type: none"><li>• <b>Geographical Coverage:</b> Focus on specific country, region</li><li>• <b>Data Source:</b> Utilize publicly available dataset (Kaggle)</li><li>• <b>Visualization Methods:</b> Interactive dashboards, story, pie chart, Bar charts and Histograms</li></ul>

### Problem Statement:

Description	The Toy Craft Tales is influenced by multiple factors, including countries. interactive representation of toy craft tales.
Impact	By leveraging the power of data visualization, stakeholders can gain a deeper understanding of the global toy craft landscape, identify patterns, and make informed decisions to enhance the preservation and promotion of these sites.

### Resource Requirements:

#### Hardware

Resource Type	Description	Specification/Allocation
Computing Resources	CPU/GPU specifications	Standard CPU
Memory	RAM Specifications	16GB
Storage	Disk space for data, models and logs	! TB SSD

#### Software

Resource Type	Description	Specification/Allocation
Frameworks	Data Visualization Frameworks	Tableau
Libraries	Additional libraries	Flask package
Development Environment	Visual studio code	Jira, GitHub

#### Data

Resource Type	Description	Specification/Allocation
Data	Source, size, format	Kaggle Dataset (Toy Craft Tales),10MB

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members	Sprint Start Date	Sprint End Date (Planned)
Sprint-1	Data Collection & Extraction from Database	USN-2	Downloading the dataset	2	High	Yogitha	24-6-2025	26-6-2025
Sprint-1	Data Preparation	USN-4	Explanation video links	1	High	Lakshmi Prasanna	24-6-2025	26-6-2025
Sprint-2	Data Visualization	USN-6	No. of Unique Visualizations	2	High	Yogitha	27-6-2025	28-6-2025
Sprint-2	Data Visualization	USN-7	Visualizations	2	High	Yogitha	27-6-2025	28-6-2025
Sprint-3	Dashboard	USN-9	Responsive and Design of Dashboard	1	Medium	Varshitha	28-6-2025	29-6-2025
Sprint-3	Story	USN-11	No of Scenes of Story	2	Low	Varshitha	28-6-2025	29-6-2025
Sprint-3	Story	USN-12	Utilization of Filters	1	Medium	Raja Rajeswari	28-6-2025	29-6-2025

Sprint-4	Web integration	USN-14	Go to Dashboard/story, click on share button on the top ribbon	2	Medium	Raja Rajeswari	28-6-2025	30-6-2025
Sprint-4	Web integration	USN-15	Dashboard and Story embed with UI With Flask	2	Low	Lakshmi Prasanna	28-6-2025	30-6-2025

3. Data Collection and Preprocessing Phase

3.1. Data Collection Plan and Raw Data Sources Identified

Section	Description
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Project Overview	<p><b>TOYCRAFT TALES:TABLEAU’S VISION INTO TOY MANUFACTURER DATA:</b></p> <p><b>AN In-Depth Analysis of UNESCO World TOYCRAFT TALES</b></p> <p>is a comprehensive project aimed at exploring the rich dataset of UNESCO World toy craft Sites using Tableau. This project focuses on visualizing the distribution, trends, and key attributes of these sites to provide valuable insights. By leveraging the power of data visualization, stakeholders can gain a deeper understanding of the global toy craft landscape, identify patterns, and make informed decisions to enhance the preservation and promotion of these sites.</p> <ul style="list-style-type: none"> <li>• <b>Geographical Coverage:</b> Focus on specific country, region</li> <li>• <b>Data Source:</b> Utilize publicly available dataset (Kaggle)</li> </ul> <p><b>Visualization Methods:</b> Interactive dashboards, story, pie chart, Bar charts and Histograms</p>
Data Collection Plan	<p>The Data is collected from the “KAGGLE”</p> <p><b>TOYCRAFT TALES : TABLEAU’S VISION INTO TOY MANUFACTURER DATA USING TABLEAU</b></p> <p>Data Set Link:- (<a href="#">click me</a>)</p>

Raw Data Sources	Transformed Toy Craft sites Data 2 from KAGGLE.
Identified	This dataset contains sites records with various attributes such as <b>category, region, states, unique_id, longitude, latitude</b> . The data has been pre-processed and transformed for analytical purposes. There are a total of 22 columns, out of which Sites can be supposedly taken as a dependent variable. The other variables are different features.

**Raw Data Sources Template**

Source Name	Description	Location/URL	Format	Size	Access Permissions
Transformed Housing Data 2	This dataset contains  Toy Craft sites sale records with details such as category, regions, states, and other property features.	<a href="#"><i>Kaggle data set link</i></a>	CSV	10 MB	Public



### 3.2. Data Exploration and Preprocessing

Section	Description
Data Overview	can be supposedly taken as a variable. This project, "Toy Craft Tales: Tableau's Vision Into Toy Manufacturer Data," aims to explore and analyze using the Transformed Toy Craft dataset from Kaggle.
Data Transformation	<p>Applied filtering, sorting, pivoting, and created calculated fields such as (Top 25), Inscribed sites(Top 10) and Most Toy Craft Sites.</p> <p>Converted multiple binary zip code group columns into a single categorical variable. Removed or adjusted potential outliers.</p>
Data Type Conversion	Corrected data types, ensuring numerical fields are properly formatted. Ensured that numerical fields are in the correct format. Converted categorical variables like Zipcode Groups into appropriate data types.

Data Modeling	Data modeling is a critical step in organizing, cleaning, and structuring the dataset to ensure accurate analysis and seamless visualization in Tableau. For the ToyCraft Tales project, the modeling process focused on creating a clean schema that supports filtering, aggregation, and comparison across multiple dimensions.
Save Processed Data	-

## 4. Data Visualization

### 4.1. Framing Business Questions

1. What is the average year of inscription for Toy Craft Tales?
2. Which category (Cultural, Natural, Mixed) is associated with the most recently inscribed sites?
3. Which decade had the lowest number of site inscriptions?
4. How many different toy craft categories are represented?

### 4.2 Developing Visualizations

Visualizations are essential for exploring and communicating insights from Toy craft Tales data. They help reveal patterns, regional distributions, category dominance, and other meaningful trends. Below are key types of visualizations used in this project:

- **Bar Charts** – Compare the number of toy craft sites by country or region to identify which nations have the highest representation.
- **Scatter Plots** – Explore relationships between year of inscription and number of sites, or between population and toycraft site density (when integrated with external datasets).
- **Histograms** – Show the distribution of toycraft sites based on their year of inscription, helping to identify periods of increased global recognition.
- **Heatmaps** – Visualize correlations between site categories (Cultural, Natural, Mixed) and other features like site size, risk status, or region.
- **Box Plots** – Detect outliers in site area (hectares), year of inscription, or other numeric fields, offering insights into extreme cases or anomalies.
- **Geospatial Maps** – Display the geographic spread of toycraft sites globally, enabling users to explore location-based trends and regional clusters.

## 5. Performance Testing

### 7.1 Utilization of Data filters

Selected Top (10) Most tSites Selected Top

(10) Inscribed Sites

## Selected Top (10) Toy Craft Sites (by Year of Inscription)

No of Calculation Field

- - -

### 7.2 No of Visualization

- Bar Chart
- Pie Chart
- Bubble Chart
- Donut Chart
- Text Table
- Word Cloud
- Horizontal Chart

## 6. Conclusion/Observation

The Toy Craft Tales project offers a comprehensive visual analysis of Toy Craft Tales Sites, uncovering patterns in their global distribution, classification, and historical trends. The data highlights the dominance of cultural sites, the regional concentration in Europe and Asia, and the leadership of countries like Italy and China in toy craft recognition. Insights into yearly inscription trends and endangered sites further emphasize the dynamic nature of toycraft conservation and the need for ongoing global efforts.

By leveraging Tableau's interactive capabilities, the project makes toy craft data more accessible and engaging for a wide audience, including educators, researchers, and policy-makers. It not only fosters a deeper appreciation for the world's cultural and natural assets but also provides a valuable foundation for future enhancements such as predictive modelling, real-time updates, and integration with external datasets to support toycraft preservation and education.

## 7.Observations

1. **Site Distribution** –ToyCraft Sites are not evenly distributed across the globe. Regions like Europe and Asia show a higher concentration, reflecting historical and cultural density in these areas.
2. **Category Influence** – Cultural sites dominate the listings, while natural and mixed-category sites are fewer.

Cultural toycraft appears to be more widely recognized and documented by US Toy Manufacturers.

3. **Country Trends** – Countries such as Italy, China, and Spain consistently have the highest number of toycraft sites, likely due to rich historical legacies and proactive preservation efforts.
4. **Yearly Inscriptions** – The number of sites inscribed each year varies, with noticeable spikes around international toycraft conferences or major anniversaries. Recent years show increasing interest in diversifying toycraft representation.
5. **Risk and Preservation** – A subset of sites is marked as endangered, indicating threats from urbanization, climate change, or conflict. These outliers highlight the need for urgent conservation action and international support.

## 8. Future Scope

The Toy Craft Tales project presents a strong foundation for exploring and understanding Toy Manufacturers in US States. To further enhance its functionality, user engagement, and analytical depth, several future enhancements can be considered:

### 1. Advanced Predictive Analytics

Implementing machine learning models and statistical techniques can enable forecasting and trend analysis. For example, predicting which sites are at risk due to climate change or geopolitical factors could support preservation efforts. Models could also identify patterns in site inscription criteria or forecast future toycraft site nominations.

### 2. Enhanced Interactive Visualizations

Tableau dashboards can be further enriched with dynamic filters, storyboards, drill-down features, and real-time data updates. User-centric enhancements, such as mobile-optimized dashboards and multilingual tooltips, can improve accessibility and user experience across different audiences.

### 3. Integration with External Data Sources

Connecting the Tableau dashboards to external APIs and real-time datasets such as global climate data, tourism statistics, or historical archives can provide deeper insights. This integration allows for contextual analysis, enabling users to compare heritage sites against external variables like visitor footfall, weather

patterns, or local economic impact.

#### 4. **Web Application Enhancements**

Transforming the Tableau analysis into a fully functional web application can widen its reach. Embedding dashboards within an interactive website, adding user logins, personalized site recommendations, or feedback modules can make the tool more participatory and engaging for educators, researchers, and travellers alike.

### **9. Appendix**

#### 9.1 Source Code (if any)

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#### 9.2 GitHub & Project Demo

[GitHub Link:](#)

[Project demo link](#)