Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	15 February 2026
Team ID	LTVIP2026TMIDS83686
Project Name	ToyCraft Tales – Tableau's Vision into Toy Manufacturer Data
Maximum Marks	4 Marks

Technical Architecture:

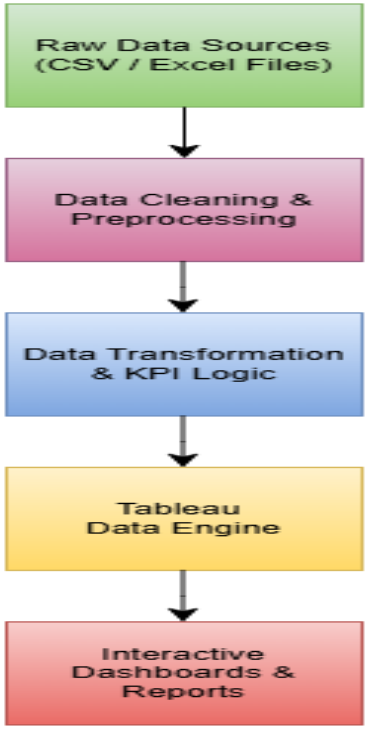

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Interactive dashboard where users analyse toy manufacturer data by state and year.	Tableau Desktop
2.	Application Logic-1	Data preprocessing logic: cleaning, filtering, grouping manufacturer data.	Tableau Data Preparation / Built-in Functions
3.	Application Logic-2	Custom calculated fields for KPI calculations (Top State, Peak Year, Total Manufacturers).	Tableau Calculated Fields
4.	Application Logic-3	Trend analysis and comparison logic across years and states.	Tableau Table Calculations
5.	Database	Stores structured toy manufacturer dataset (2005–2016).	CSV / Excel Dataset
6.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
7.	Visualization Layer	Charts, maps, KPI cards, growth analysis visuals	Tableau Visualization Engine
8.	Reporting Layer	Exporting dashboards as PDF/PNG and sharing insights.	Tableau Export Features
9.	Security Layer	Data access control when published; role-based access (if deployed).	Tableau Security Features
10.	Infrastructure Layer	Local deployment environment for development and execution.	Local System (Windows / Mac)
11.	Deployment Option	Dashboard can be published for public access or organizational sharing.	Tableau Public / Tableau Server

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Tableau is a proprietary BI tool; no open-source framework used.	Tableau
2.	Security Implementations	Data handled locally; Tableau supports authentication and data-level security if published.	Tableau Security Features
3.	Scalable Architecture	Can scale by adding more years or states to dataset.	Tableau Extract / Data Model
4.	Availability	Available locally; can be published to Tableau Server/Public.	Tableau Desktop / Tableau Public
5.	Performance	Optimized using filtered datasets and efficient calculated fields.	Tableau Optimized Data Engine