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

Date	16 February 2026
Team ID	LTVIP2026TMIDS90954
Project Name	Toycraft Tales: Tableau's Vision Into Toy Manufacturer Data
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Table-1 : Components & Technologies:

S.No	Component	Description	Technology / Tool
1	User Interface	Interface to view dashboard and interact with visuals	Tableau Public / Tableau Desktop
2	Application Logic-1	Data preprocessing and transformation	Python (Pandas), Tableau prep tools

3	Application Logic-2	Creating calculated fields and data filters	Tableau Calculated Fields
4	Application Logic-3	Visualization logic and chart rendering	Tableau Visualization Engine
5	Database	Local storage of CSV dataset	Flat File (.CSV)
6	Cloud Database	(Optional) Hosting dataset on cloud for Tableau Cloud usage	Google Sheets / Tableau Cloud
7	File Storage	Where source dataset is stored before uploading to Tableau	Local Filesystem / Google Drive
8	External API-1	Not used (N/A for this dashboard)	N/A
9	External API-2	Not used	N/A
10	Machine Learning Model	Not used in current scope	N/A
11	Infrastructure	System used for dashboard design and publishing	Local (Windows/MacOS) / Tableau Public

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology / Tool

1	Open-Source Frameworks	Tableau Public is free to use; Python libraries used for preprocessing	Tableau Public, Pandas
2	Security Implementations	Local file privacy maintained; Tableau public link access can be controlled	Google Drive Permissions, Tableau's sharing controls
3	Scalable Architecture	Tableau dashboards can be extended with additional datasets and new visuals	3-Tier Design (Data → Logic → UI)
4	Availability	Tableau dashboards are highly available via Tableau Public or Cloud links	Tableau Public, Google Drive
5	Performance	Dashboards optimized by reducing unused fields, applying filters carefully, and using extracts	Tableau Extract Engine, Preprocessed CSVs