

Project Design Phase

Solution Architecture

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| Date | 16 February 2026 |
| Team ID | LTVIP2026TMIDS62105 |
| Project Name | ToyCraft Tales: Tableau's Vision into Toy Manufacturer Data |
| Maximum Marks | 4 Marks |

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.

Goals of the Architecture

1. Find the best tech solution to visualize how product position, price, promotions, and customer demographics affect sales volume.
2. Define the system's structure and behavior using Tableau Public for dashboards and Python/Tableau for preprocessing.
3. Outline features, components, and development phases clearly for visualization and interaction.
4. Provide technical specifications for implementation and scaling.

Architecture Components

| Layer | Component Description |
|--------------------|---|
| Data Layer | Source: Product Positioning.csv file with fields like Sales Volume, Foot Traffic, Demographics, Promotion, etc. |
| Processing Layer | Data cleaning, formatting, and calculated fields in Tableau or via Python (optional). |
| Application Layer | Tableau logic engine for filters, calculations, and chart rendering. |
| Presentation Layer | Final dashboard built in Tableau with interactive visuals: bar, funnel, donut, waterfall, etc. |
| Users | Retail managers, marketing executives, analysts – accessing via Tableau Public or PDF reports. |

Solution Architecture Diagram:

