**Project Design Phase**
**Solution Architecture**

| Date | 21/06/25 |
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| Team ID | LTVIP2025TMID51568 |
| Project Name | ToyCraft Tales: Tableau's Vision into Toy Manufacturer Data |
| Maximum Marks | 4 Marks |

## Solution Architecture – ToyCraft Tales

Solution architecture bridges the gap between business needs and technical implementation. It outlines how the system's components interact to deliver data-driven insights in a scalable and maintainable way.

### Key Architectural Highlights:

- Layered Design: The solution cleanly separates data preprocessing (MySQL), storage, visualization (Tableau), and presentation (Flask web app), ensuring flexibility, maintainability, and scalability.
- Data Flow: Cleaned and processed data from a MySQL database is visualized through interactive Tableau dashboards. These visualizations offer region-wise, year-wise, and seasonal insights with dynamic filters.
- Web Integration: The Tableau dashboards (or their image equivalents) are embedded into a Flask-based web interface, offering an intuitive portal for users to interact with the data.
- Future Ready: The architecture allows for future integration of forecasting models (e.g., via machine learning), and deployment options include local servers or cloud platforms such as Heroku or AWS.

**Solution Architecture Diagram:**