Date	13 FEB 2026
TeamID	LTVIP2026TMIDS8565
ProjectName	ToyCraftTales:Tableau'sVisionintoToy ManufacturerData
MaximumMarks	4 Marks

Solution Architecture:

1. Data Sources Layer :

ToyCraftcollectsdatafrommultiplesources:

- ☐ SalesplatformslikeFlipkartandAmazon
- ☐ Inventorysystemsfromwarehouses
- ☐ Customerfeedbackviaonlinereviewsandsurveys
- ☐ ProductiondatafromERPtoolslikeSAPorOracle Thisensuresthatallcriticalbusinessoperationsaretracked.

2. Data Ingestion Layer :

Tools suchasTalend orTableau Prep are used to automate data collection. APIs and scheduled scriptsregularlypullnewsalesrecords,stockupdates,andcustomerfeedbackintothesystem, ensuring up-to-date information.

3. Data Storage Layer :

AllcollecteddataissecurelystoredinscalablecloudstoragelikeGoogleBigQuery,Snowflake,or AWSS3.Theseplatformsallowefficientqueryingandhigh-speedprocessingoflargedatasets.

4. Data Processing & Transformation Layer :

Dataiscleanedandorganizedforanalysis.Operationsinclude:

- ☐ Removingduplicatesornulls
- ☐ Joiningdatasets(e.g.,linkingtoyIDfromsalesandinventory)
- ☐ Calculatingkeyperformancemetricslikeaveragedailysalesorlow-stockalerts This makes the data ready for visualization.
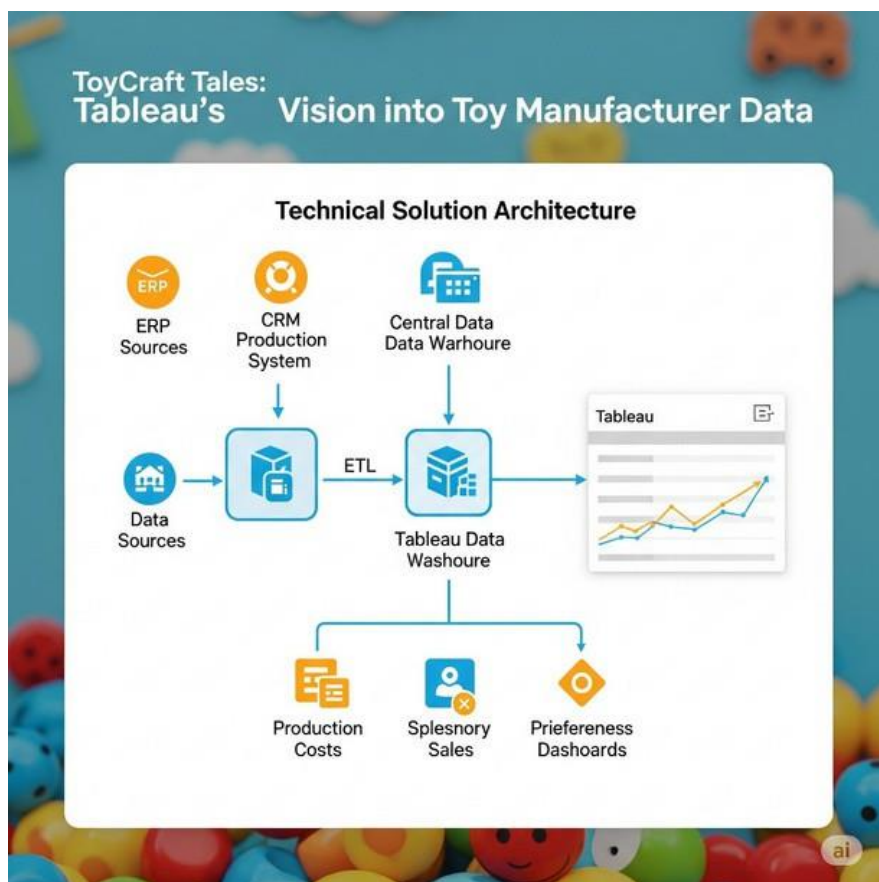
5. Visualization & Reporting Layer :

Using Tableau, interactive dashboards are created:

- □ □ *TopPerformingToysbyRegion*
- □ □ *Real-Time Inventory Dashboard*
- □ □ *CustomerSentimentfromReviews*
- □ □ *Salesvs.ProductionForecast*
  These dashboards help decision-makers monitor performance and spot issues quickly.

Example:

- □ Let's say ToyCraft wants to understand why a best-selling toy is suddenly underperforming.

- □ The sales data from Flipkart shows a 40% drop in the past two weeks.

- □ Inventory data reveals that the toy is out of stock in North India.

- □ Customer reviews indicate complaints about availability and delayed shipping.

- □ The Tableau dashboard clearly highlights this trend through red alerts on the sales-performance chart and a map showing stockouts.

As a result, the management team uses this insight to immediately shift stock from South India to North and work with logistics to fix the delivery gap — all in real time, thanks to the solution's architecture.

Example - Solution Architecture Diagram: