Date	03 July 2025
Team ID	LTVIP2025TMID50344
Project Name	Cosmetic Insights : Navigating Cosmetics Trends and Consumer Insights with Tableau
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture helps bridge the gap between cosmetic market challenges and data-driven technology solutions. In this project, it provides the structure and flow needed to collect, process, and visualize cosmetic product data to support insights into customer preferences and product trends.

✅ Objectives:

- Find the most efficient tech stack for understanding consumer preferences and cosmetic market behavior.

- Define how data flows from collection to visualization.

- Outline key tools and platforms used (e.g., Tableau, CSV data, Python, Excel).

- Provide a clear overview for stakeholders on how the dashboards are created and used.

Description of Solution Architecture:

This solution is built around data visualization using Tableau. The architecture includes the following stages:

- Data Collection: Cosmetic product data and customer reviews are obtained in CSV format from online sources or survey forms.

- Data Cleaning (Optional): Null values, duplicates, or inconsistent entries are removed using Excel or Python to ensure data quality.

- Tableau Processing: Cleaned data is imported into Tableau Desktop. Visualizations such as bar charts (e.g., top brands), pie charts (e.g., category share), and trend lines (e.g., monthly preference) are created.

- Dashboard Compilation: The visualizations are compiled into interactive dashboards and stories to display insights clearly.

- Publication: The dashboards are published on Tableau Public to enable online sharing and access.

- Stakeholder Access: Brand managers, marketing teams, and product developers can access dashboards using shareable links for data-driven decisions.

Example - Solution Architecture Diagram:

Figure 1: Architecture and data flow of the Cosmetics Insights application