

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

Date	29 May 2025
Team ID	LTVIP2025TMID48256
Project Name	Cosmetic Insights – Navigating Cosmetics Trends and Consumer Insights with Tableau
Maximum Marks	4 Marks

Technical Architecture:

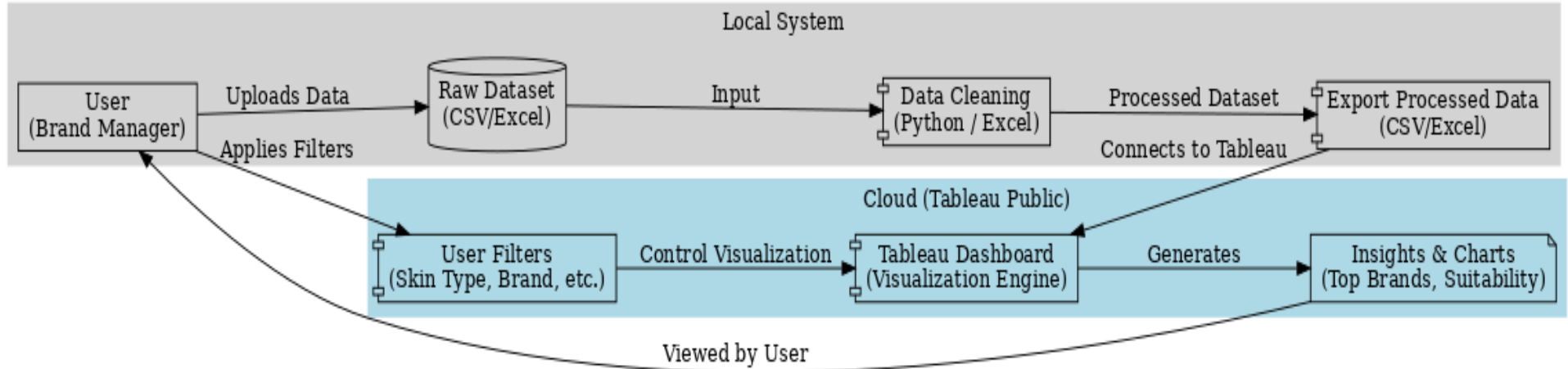


Table-1: Components & Technologies:

S.No	Component	Description	Technology Used
1.	User Interface	Dashboard UI for interacting with visualizations	Tableau Public / Tableau Desktop
2.	Application Logic-1	Data filtering and rendering logic	Tableau Worksheets & Dashboards
3.	Application Logic-2	Data cleaning and transformation	Python (Pandas), Excel preprocessing
4.	Application Logic-3	Data ranking, grouping, suitability mapping	Tableau Calculated Fields
5.	Database	Local dataset storage	CSV / Excel
6.	Cloud Database	Optional for online data access	Google Sheets (optional)
7.	File Storage	Local storage for datasets	Local File System
8.	External API-1	Not used in this project	—
9.	External API-2	Not used in this project	—
10.	Machine Learning Model	Not included in current scope	—
11.	Infrastructure	Run locally or through Tableau Public	Local System / Tableau Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology Used
1.	Open-Source Frameworks	Data preprocessing, basic plotting (if done before Tableau)	Python (Pandas, Matplotlib)
2.	Security Implementations	File security ensured through local file handling	OS-level controls (local)
3.	Scalable Architecture	Can scale with larger data using Tableau Prep / Tableau Server	Tableau Cloud / Tableau Server
4.	Availability	Published dashboards accessible online via Tableau Public	Tableau Public
5.	Performance	Fast rendering with Tableau optimization and filters	Tableau filters & extract mode