

Data Collection and Preprocessing Phase

Date	21 March 2025
Team ID	LTVIP2025TMID26719
Project Title	Cosmetics Insights : Navigating cosmetic trends and consumer insights with tableau
Maximum Marks	10 Marks

Data Exploration and Preprocessing :

Identifies data sources, assesses quality issues like missing values and duplicates, and implements resolution plans to ensure accurate and reliable analysis.

This structured approach ensures high-quality data for accurate cosmetic trend analysis and visualization in Tableau.

Section	Description	Application in Cosmetic Insights
Data Overview	Short description about dataset	Collect customer reviews, product sales, and social media trends.

Data Cleaning	Handle missing values, duplicates, and correct errors.	Remove duplicate product entries, handle missing ratings, and correct inconsistent brand names.
Data Transformation	Use of filtering, sorting, pivoting, and creating calculated fields	Sort products by popularity, filter skincare products by ingredients, and calculate trend scores.
Data Type Conversion	Rectifying Datatype	Convert price columns to numeric, standardize date formats for trend analysis.
Column Splitting and Merging	Split or merge columns as needed.	Separate product names into brand and type; merge region-wise sales data.
Data Modeling	Define relationships between tables	Connect consumer demographics with purchasing behavior, linking sales data to marketing campaigns.
Save Processed Data	Save the cleaned and processed data for future use.	Save data in a Tableau-compatible (SQL) for visualization.