

DataCollectionandPreprocessingPhase:

Date	18June2025
TeamID	CosmeticInsights:NavigatingCosmeticsTrendsandConsumerInsightswithTableau
ProjectTitle	LTVIP2025TMID51415
MaximumMarks	10 Marks

DataExplorationandPreprocessingTemplate:

Section	Description
DataOverview	Cosmetic is defined as a product that is applied to the human body for cleansing, beautifying,promotingattractiveness,oralteringtheappearancewithoutaffecting the body structure or functions. Cosmetics are substances used to enhance the appearanceorOdorofthehumanbody. Cosmeticsincludeskin-careproducts, fingernailandtoenailpolish,eyeandfacialmakeup,andpermanentwavesolution. Todevelopacomprehensiveanalyticalframeworkusingdataanalysisand visualizationtechniques,specificallyleveragingTableau,toprovideactionable insights into current and emerging cosmetic trends and consumer behaviors.
DataCleaning	When diving into cosmetic insights using Tableau, robust data cleaning is paramountfocusedlookathandlingmissingvalues,duplicates,anderrors.Wegrid the data to remove the null values. We removed the duplicate rowsto ensure each record represents a unique entity. We find the errors and removed those errors to represent the quality data to present the prefect visualization.
Data Transformation	FilterName: "Brand" Purpose: To categorize and compare brands based on their suitability for sensitive skin. Calculationfield: SUM(Rank) Purpose: Thisindicatesthatthe"Rank"field isbeingaggregatedusingtheSUM function.

	<ul style="list-style-type: none"> Transforming imagedata into numerical data for facial recognition or skin analysis. Organizing raw sales numbers into usable reports.
Column Splitting and Merging	We never used Column splitting and merging because website original data is perfect to create visualization so we did not use this column splitting and merging.
Data Modeling	When working with "Cosmetic Insights: Navigating Cosmetics Trends and Consumer Insights with Tableau," defining relationships between tables is crucial for accurate and insightful analysis. Tableau offers powerful features to manage these relationships. Those are Connect to Your Data, Drag Tables to the Canvas, Define Relationship Conditions etc.
Save Processed Data	Save the Tableau workbook (.xls) file. This file contains all your data connections, worksheets, dashboards, and formatting. Publish the Workbook to Tableau Server. This allows you to share the workbook with others and collaborate on the analysis in real-time. saving our data depends on our specific needs and how we are intending to use the data in the future. Considering factors such as accessibility, collaboration, and the need for ongoing updates when making your decision.
Data Type Conversion	<p>cosmetics trends and consumer insights, brands should focus on data-driven personalization, leveraging AI for insights, and understanding emerging consumer preferences like sustainability and inclusivity. When we working with cosmetic insights and consumer trends in Tableau, data conversions are crucial for accurate analysis and visualization.</p> <ul style="list-style-type: none"> Tracking trends over time requires proper date/time data type, to convert the data string into date time format to create time-series charts to analyzing the time-of-day consumer purchased. Converting text data into numerical data for sentiment analysis.

