Data Collection and Preprocessing Phase

Date	11 Feb 2026
Team ID	**LTVIP2026TMIDS61400**
Project Title	Cosmetic Insights: Navigating Cosmetics Trends and Consumer Insights with Tableau
Maximum Marks	2 Marks

Data Collection Plan Template:

Section	Description
Project Overview	This dataset represents a collection of skincare products, including moisturizers, cleansers, treatments, face masks, eye creams, and sun protection. Each product is characterized by its brand name, price, user rating (Ranking), key ingredients (Ingred Combination), and suitability for different skin types (Dry, Normal, Oily, Sensitive). To develop an interactive Tableau dashboard that provides actionable insights into cosmetic trends and consumer behavior, enabling businesses to make informed decisions regarding product development, marketing strategies, and sales optimization.
Data Collection Plan	The Data is collected from the "KANGGLE". Cosmetic Insights: Navigating Cosmetics Trends and Consumer Insights with Tableau. LINK https://www.kaggle.com/datasets/kingabzpro/cosmetics-datasets
Raw Data Sources Identified	By gathering and integrating these raw data sources, you'll have a comprehensive foundation for building insightful Tableau dashboards that reveal cosmetics trends and consumer behaviors. This raw data potential sources contain Sales & Transactional Data, E-commerce Platforms, Distributor/Wholesale Data, Customer Demographics & Behavior, Social Media Analytics, Market Research Surveys, Product & Inventory Data, External Market Data etc..

Raw Data Sources Template

Source Name	Description	Location/URL	Format	Size	Access Permissions

	- Transforming image data 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 prefect to create visualization so we did not used 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	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. - Tracking trends over time requires proper date/time datatype, to convert the data string into datetime format to create time-series charts to analyzing the time-of-day consumer purchased. - Converting text data into numerical data for sentiment analysis.