

Project Initialization and Planning Phase

Date	15 March 2025
Team ID	LTVIP2025TMID25146
Project Title	Cosmetic Insights
Maximum Marks	3 Marks

Project Proposal (Proposed Solution) template

This project proposal outlines a solution to address a specific problem. With a clear objective, defined scope, and a concise problem statement, the proposed solution details the approach, key features, and resource requirements, including hardware, software, and personnel.

Project Overview	
Objective	The primary objective of this project is to analyze cosmetic product data to help consumers and businesses make informed decisions. By leveraging data visualization and analysis techniques, this project aims to categorize cosmetics based on their suitability for different skin types and evaluate product rankings and market trends.
Scope	This project covers the analysis of various cosmetic products, their rankings, pricing, and suitability for different skin types. The data is visualized using dashboards to provide insights into product performance, brand dominance, and potential market gaps.
Problem Statement	
Description	Consumers often struggle to choose the right cosmetic products due to the vast number of brands and formulations available. Finding the most suitable products based on skin type, price, and ranking is challenging.
Impact	By providing clear data-driven insights, this project helps consumers select suitable products and assists brands in understanding their market positioning. It also identifies gaps in product offerings for underserved skin types.
Proposed Solution	

Approach	<ul style="list-style-type: none"> • Data collection and preprocessing from cosmetic product sources. • Data visualization using Tableau to display rankings, brand suitability, and product count per skin type. • Analysis of product trends and gaps in the market. • Recommendations based on consumer preferences and product effectiveness.
Key Features	<ul style="list-style-type: none"> • Label Ranking: Visualization of different product categories and their rankings. • Product Suitability Analysis: Identification of suitable and non-suitable brands for different skin types. • Market Trend Analysis: Insights into the most popular products and brand performance. • Price vs. Performance Correlation: Analysis of whether higher prices correlate with better product suitability.

Resource Requirements

Resource Type	Description	Specification/Allocation
Hardware		
Computing Resources	Processing power for data analysis	2 x NVIDIA V100 GPUs
Memory	RAM for smooth processing	16 GB
Storage	Disk space for data storage	500 GB SSD
Software		
Frameworks	Data analysis frameworks	Python, Tableau
Libraries	Additional libraries	Pandas, NumPy, Matplotlib
Development Environment	IDE & Version Control	Jupyter Notebook, Git

Data

Data Type	Source	Format
Cosmetics Data	Provided dataset	CSV
Dashboard Visuals	Tableau Dashboards	PNG

