

## Project Initialization and Planning Phase

Date	25-03-2025
Team ID	LTVIP2025TMID28445
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	To develop an AI-powered platform that provides insights into cosmetic products, helping users make informed decisions based on ingredients, sustainability, and suitability for their skin type.
Scope	<ul style="list-style-type: none"> <li>Analyze cosmetic product ingredients and their effects.</li> <li>Provide personalized recommendations based on user preferences and skin type.</li> <li>Offer transparency in sustainability practices of cosmetic brands.</li> <li>Use AI and data analytics to generate insights from product databases.</li> </ul>
Problem Statement	
Description	Consumers struggle to find reliable, personalized information about cosmetic products. Most product descriptions are generic, and ingredient lists can be confusing. There is also a lack of transparency regarding the sustainability of brands.
Impact	<ul style="list-style-type: none"> <li>Helps users choose safer and more effective products.</li> </ul>

	<ul style="list-style-type: none"> <li>• Enhances transparency in the cosmetics industry.</li> <li>• Reduces the risk of allergic reactions and unsuitable product usage.</li> </ul>
<b>Proposed Solution</b>	
Approach	<ul style="list-style-type: none"> <li>• Utilize AI/ML for ingredient analysis and personalized recommendations.</li> <li>• Develop a web-based or mobile application for easy access.</li> <li>• Integrate a database with verified cosmetic product details.</li> </ul>
Key Features	<ul style="list-style-type: none"> <li>• AI-powered ingredient analysis.</li> <li>• Personalized product recommendations.</li> <li>• Sustainability and ethical rating of brands.</li> <li>• User reviews and community-driven insights.</li> </ul>

### Resource Requirements

Resource Type	Description	Specification/Allocation
<b>Hardware</b>		
Computing Resources	memory	e.g., 2 x NVIDIA V100 GPUs
Memory	RAM specifications	e.g., 8 GB
Storage	Disk space for data, models, and logs	e.g., 1 TB SSD
<b>Software</b>		
Frameworks	Python frameworks	e.g., Flask

Libraries	Additional libraries	e.g., scikit-learn, pandas, numpy
Development Environment	IDE, version control	e.g., Jupyter Notebook, Git
<b>Data</b>		
Data	Source, size, format	e.g., Kaggle dataset, 10,000 images