



Cosmetics

PRODUCT RECOMMENDATION





INTRODUCTION

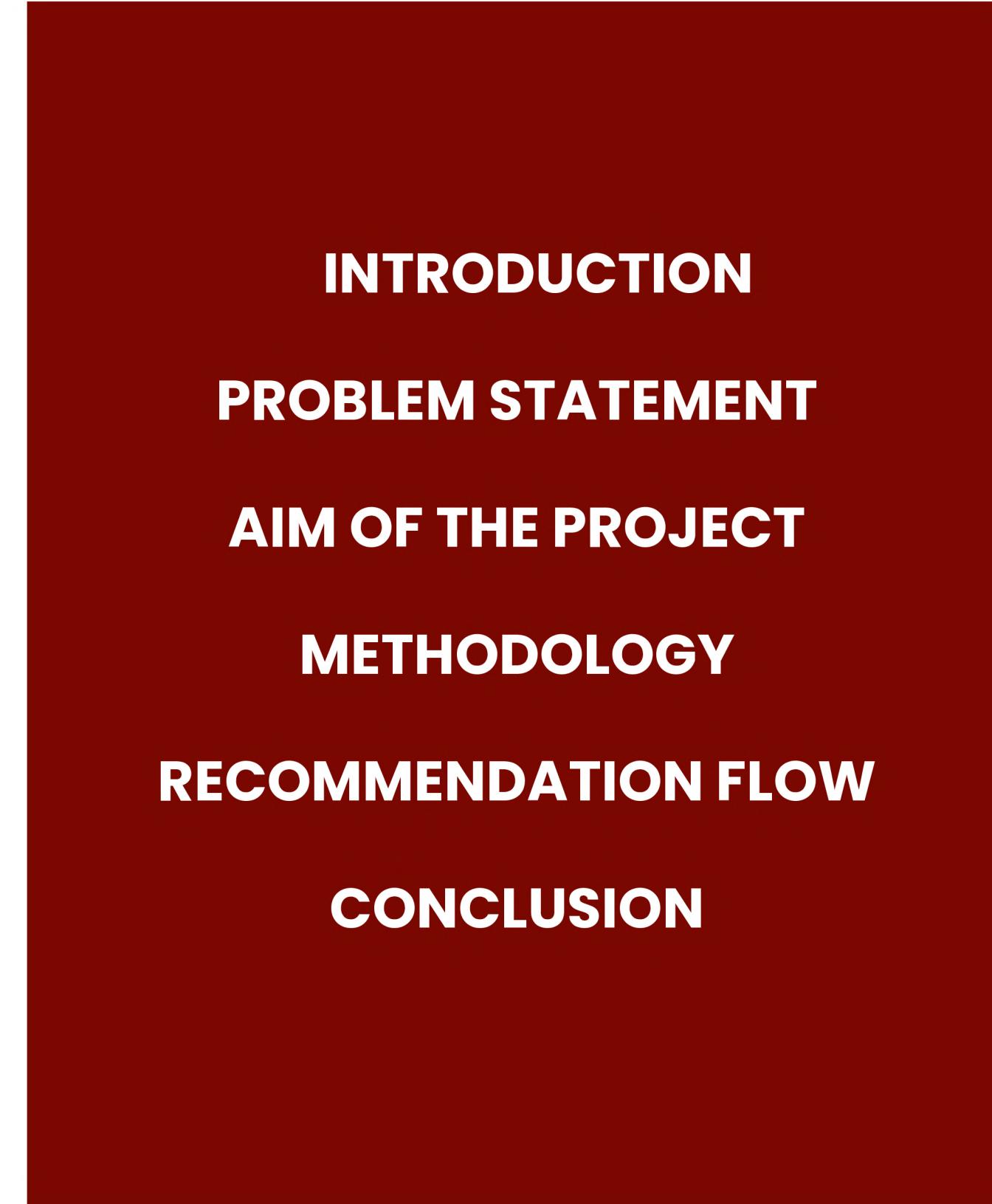
PROBLEM STATEMENT

AIM OF THE PROJECT

METHODOLOGY

RECOMMENDATION FLOW

CONCLUSION





INTRODUCTION

Cosmetic online omnichannels companies are what is trending now.

The growth of e-commerce has increased the need for personalized product recommendations to improve user engagement and conversions.

Beauty platforms like Nykaa host thousands of products, making it difficult for customers to find the right items quickly.

This project uses Deep Learning & NLP to recommend the most relevant beauty products based on product description.





Business Problem :

Customers often struggle to discover suitable beauty products due to:

- Large variety of brands, categories, and product types.
- Difficulty identifying similar or complementary products.
- Lack of personalized suggestions based on preferences.

Technical Problem :

- Product information contains unstructured text.
- Need a system that can understand meaning in text and recommend relevant items.



Aim Of The Project

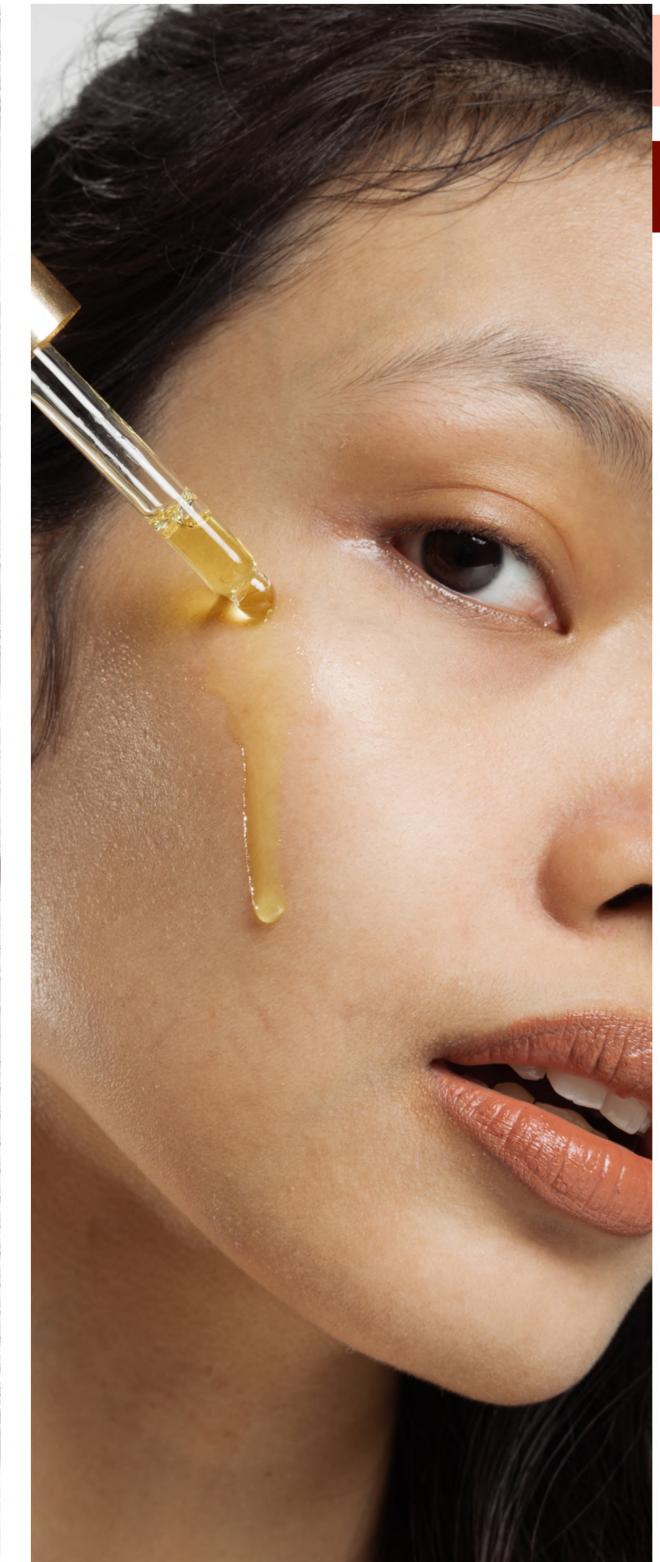
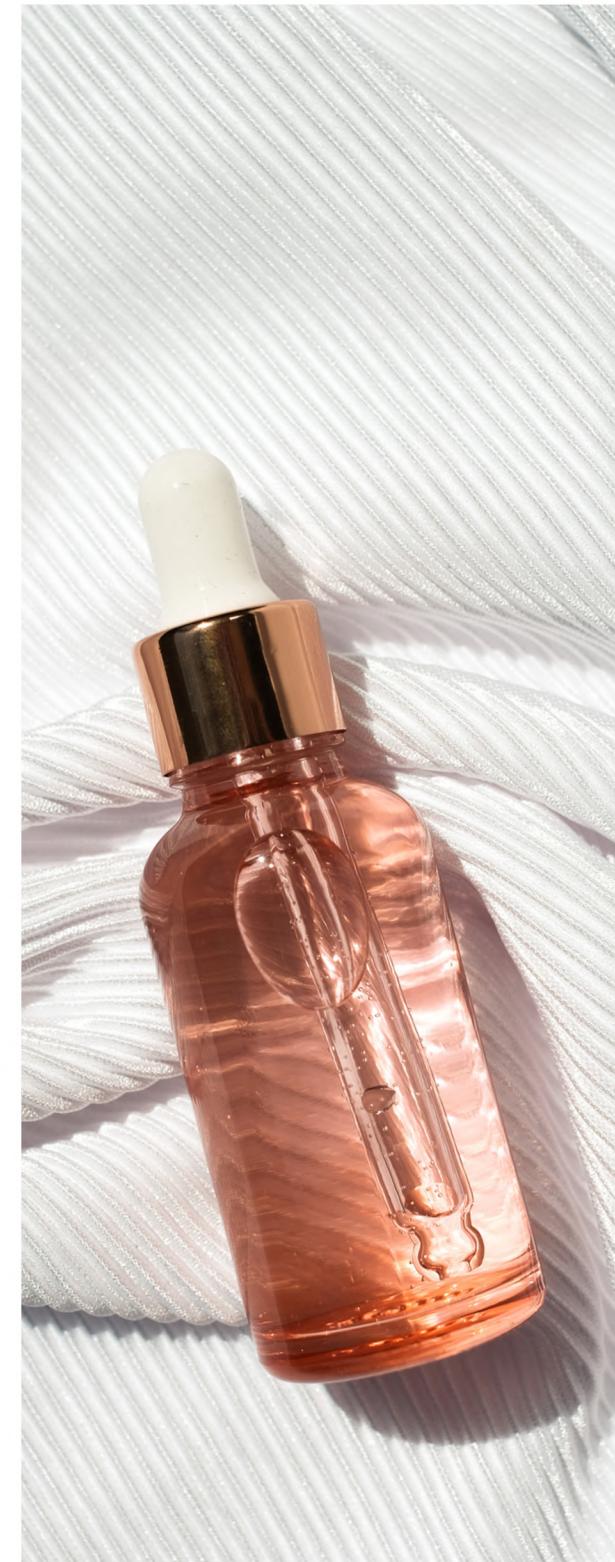
Build a Deep Learning-powered Recommendation System that can :

- Understand product features using NLP
- Compute similarity between products
- Suggest top relevant alternatives to users



METHODOLOGY

- Data Reading
- Data Cleaning using Numpy & Pandas :
 - Dropped duplicate rows
 - Removed unnecessary spaces
 - Handled missing values
 - Converted text columns to string format
 - Cleaned review text using:
 - Lowercasing
 - Stopword removal
 - Regex cleaning
- NLP Text Preprocessing
- Feature Extraction
- Semantic Embedding
- Cosine Similarity





Recommendation Flow

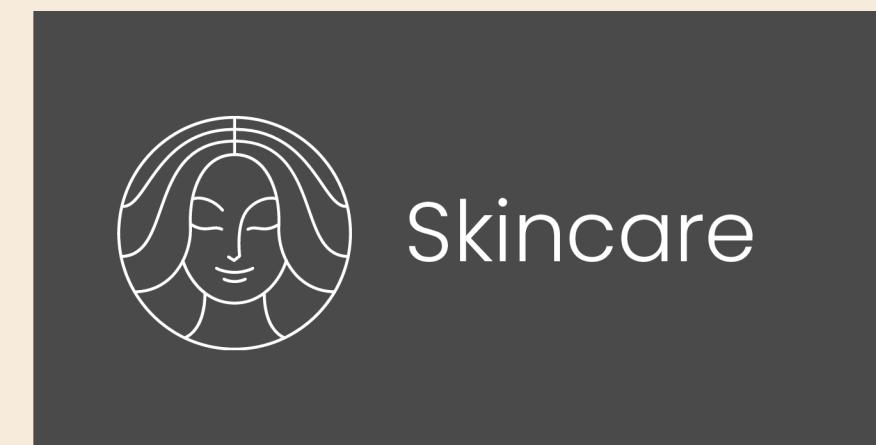
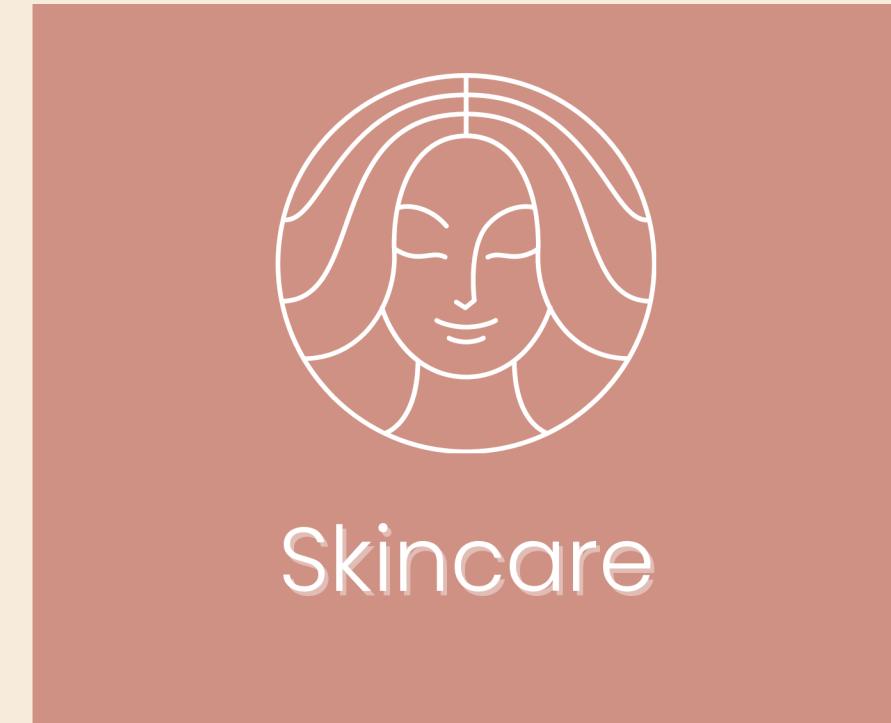
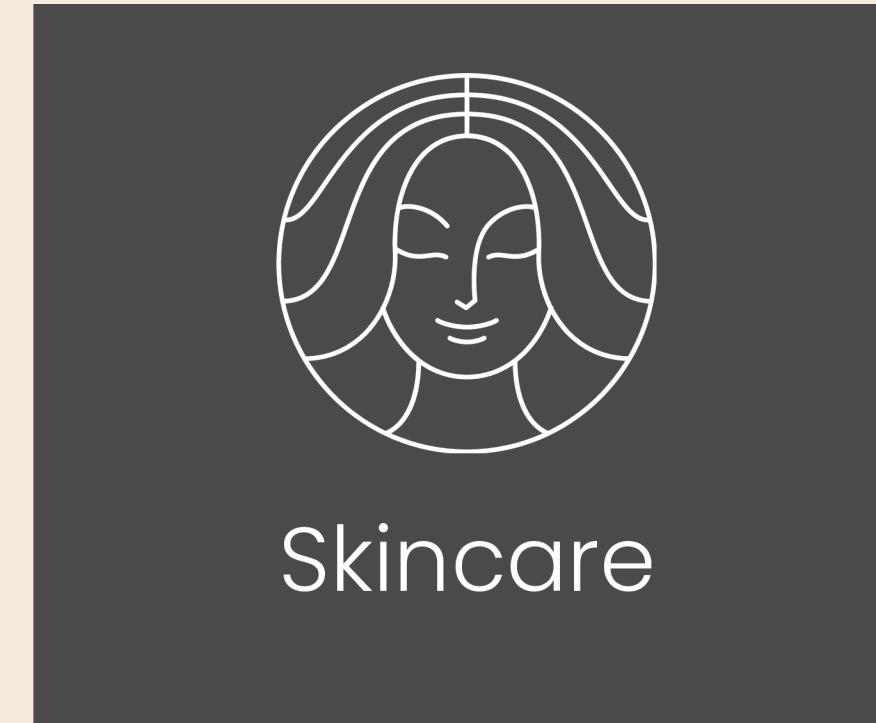
Input : Product Details

Output : Top 5 similar products.



Conclusion:

- The project demonstrates how Deep Learning and NLP can transform the shopping experience by providing meaningful product recommendations.
- This approach can improve product recommendation, customer satisfaction and engagement.





Thank You

