**Project Report: Cosmetic Insights - Navigating Cosmetics Trends and Consumer Insights with Tableau**

### 1. INTRODUCTION

**1.1 Project Overview**  
“Cosmetic Insights” is a project aimed at transforming how cosmetics data is visualized and analyzed. By using Tableau, this project delivers interactive dashboards that help stakeholders gain insights into consumer preferences, product performance, and market trends.

**1.2 Purpose**  
The project seeks to empower cosmetics companies with actionable insights, enabling data-driven decisions that enhance marketing strategies, improve product development, and foster business growth.

### 2. IDEATION PHASE

**2.1 Problem Statement**  
The cosmetics industry faces challenges in understanding dynamic consumer needs due to the lack of centralized, real-time, and actionable visual analytics.

**2.2 Empathy Map Canvas**  
Mapped out consumer thoughts, feelings, actions, and statements from surveys, reviews, and social media to understand user behavior and expectations.

**2.3 Brainstorming**  
Explored use cases including real-time trend alerts, sentiment analysis on product reviews, and predictive insights for future product launches.

### 3. REQUIREMENT ANALYSIS

**3.1 Customer Journey Map**  
Outlined customer stages from awareness to purchase and feedback. Visualized the touchpoints and data that can be collected at each stage.

**3.2 Solution Requirement**  
- Tableau for dashboards - Cleaned datasets from multiple sources (reviews, sales, trends) - Optional Python scripts for preprocessing

**3.3 Data Flow Diagram**  
Data Collection -> Cleaning -> Tableau Integration -> Visualization -> Insights

**3.4 Technology Stack**  
- Tableau - Excel/CSV/JSON files - Python (for preprocessing and automation)

### 4. PROJECT DESIGN

**4.1 Problem-Solution Fit**  
The lack of actionable insights is addressed through a powerful, user-friendly Tableau dashboard that presents live analytics.

**4.2 Proposed Solution**  
A dynamic Tableau dashboard visualizing market trends, consumer behavior, and product feedback.

**4.3 Solution Architecture**  
Data pipelines bring external data into Tableau, which processes it into interactive charts and graphs.

### 5. PROJECT PLANNING & SCHEDULING

**5.1 Project Planning**  
- Week 1: Requirement gathering and ideation - Week 2: Data collection and preprocessing - Week 3: Tableau dashboard design - Week 4: Testing and documentation

### 6. FUNCTIONAL AND PERFORMANCE TESTING

**6.1 Performance Testing**  
Tested the responsiveness of dashboards, accuracy of insights, and real-time refresh rates. Ensured smooth navigation and interaction.

### 7. RESULTS

**7.1 Output Screenshots**  
Included snapshots of: - Consumer preference heatmaps - Trend analytics - Sentiment distribution graphs

### 8. ADVANTAGES & DISADVANTAGES

**Advantages**: - Real-time decision-making - Enhanced visualization - Predictive capability

**Disadvantages**: - Dependent on data quality - Requires Tableau expertise

### 9. CONCLUSION

This project highlights the potential of data visualization in transforming the cosmetics industry. “Cosmetic Insights” bridges the gap between data and decision-making by providing dynamic, meaningful, and real-time analytics.

### 10. FUTURE SCOPE

* Use of machine learning models for deeper insights
* Expansion to adjacent domains (e.g., fashion, skincare)
* Integration with real-time consumer feedback tools
* Tableau Link

https://drive.google.com/file/d/1QM\_c3o3GswMSQDWMAWk0qACTHxT53XZh/view?usp=sharing