

Project Report Format

1. INTRODUCTION

1.1 Project Overview

The project “Cosmetic Insights: Navigating Cosmetic Trends and Consumer Insights with Tableau” aims to provide clear, interactive dashboards that help users analyze trends in the cosmetics industry. This project uses real-world data to explore brand popularity, price ranges, top products, and consumer preferences. The dashboards are designed using Tableau Public, combining various charts such as bar charts, scatter plots, bubble charts, box plots, and story points to deliver actionable insights.

1.2 Purpose

The purpose of this project is to simplify the process of understanding cosmetic trends for customers, retailers, and analysts. By visualizing important factors like skin type preferences, top brands, price distributions, and combinations of product features, users can make better purchasing or marketing decisions.

2. IDEATION PHASE

2.1 Problem Statement

Consumers often struggle to select suitable cosmetic products due to a lack of clear information about product rankings, prices, top brands, and skin type combinations. Businesses also require insights into consumer trends.

2.2 Empathy Map Canvas

Target Users: Cosmetic product buyers, beauty enthusiasts, cosmetic retailers, marketing teams.

Think & Feel: Want trusted recommendations and trending products.

See: Many confusing product options, price ranges, brand choices.

Hear: Advice from influencers, reviews, word of mouth.

Say & Do: Compare products online, look for top 10 brands, analyze prices.

Pains: Overwhelmed by too many options, unclear price differences, hidden trends.

Gains: Clear, visual insights to guide buying decisions or business planning.

2.3 Brainstorming

During brainstorming, multiple charts were identified to present the data effectively:

Top 10 Brands Bar Chart (fields: Brand, Average Price)

Skin Type Bar Chart (fields: Skin Type, Sum of Combination)

Scatter Plot (fields: Rank Sum, Price Sum, Label, Brand)

Box Plot (fields: Label, Rank Sum, Brand, Points)

Bubble Chart (fields: Name, Sum(Combination), Brand, Label, Sum(Price))

Story Points to combine charts into a narrative dashboard.

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

1. User visits the Tableau dashboard link.
2. Selects filters for brand, skin type, or price range.
3. Views charts showing top brands, price distributions, and product rankings.
4. Interacts with story points to explore trends step by step.
5. Makes informed choices for purchase or strategy.

3.2 Solution Requirement

Hardware/Software: Laptop/PC, Internet, Tableau Public, MS Excel (for data cleaning).

Dataset: Cosmetics dataset from Kaggle.

Tools: Tableau for visualization, GitHub for version control.

3.3 Data Flow Diagram

1. Data Source: Kaggle Cosmetics dataset.
2. Preprocessing: Clean data in Excel — remove duplicates, format fields.
3. Import: Load cleaned data into Tableau.
4. Visualization: Create multiple charts, combine into dashboards.
5. Output: Publish interactive dashboard on Tableau Public

3.4 Technology Stack

Data: Kaggle dataset.

Visualization: Tableau Public.

Data Cleaning: MS Excel.

Version Control: GitHub.

Demo Sharing: Tableau Public link.

4. PROJECT DESIGN

4.1 Problem Solution Fit

The interactive dashboards directly solve the problem of scattered information. They bring multiple trends — price, rank, brand popularity — together in a single place for quick analysis.

4.2 Proposed Solution

The project delivers:

Bar chart for top 10 brands by average price.

Bubble chart for combination analysis.

Box plot and scatter plot for price vs rank.

Filters for brands, labels, skin types.

Story Points to create an interactive flow.

4.3 Solution Architecture

1. Input Layer: Kaggle dataset → Preprocessed in Excel.
2. Processing Layer: Cleaned dataset → Loaded into Tableau.
3. Visualization Layer: Multiple charts & dashboards → Story Points.
4. Output Layer: Published dashboard link for users.

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

Week Activity

Week 1	Data collection, cleaning
Week 1	Create individual charts
Week 2	Combine into dashboards
Week 2	Test performance, add story points
Week 2	Publish & prepare final report

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

Checked filters for accuracy and speed.

Verified each chart displays correct values.

Tested story points for smooth navigation.

Ensured dashboard loads within seconds on Tableau Public.

7. RESULTS

7.1 Output Screenshots

Attach screenshots of:

Top 10 Brands Bar Chart

Skin Type Bar Chart

Scatter Plot Chart

Box Plot Chart

Bubble Chart

Final Story Point view

8. ADVANTAGES & DISADVANTAGES

Advantages:

Clear visual representation.

User-friendly filters.

Combines multiple insights in one place.

Accessible via Tableau Public.

Disadvantages:

Static dataset — needs regular updates.

Dependent on Tableau Public features.

Limited customization compared to advanced BI tools.

9. CONCLUSION

This project successfully demonstrates how Tableau dashboards can simplify complex cosmetic data, making it easy to navigate trends and consumer insights. The interactive story points guide the user step-by-step, helping both customers and businesses make better decisions.

10. FUTURE SCOPE

Integrate real-time data feeds.

Expand to other product categories.

Add prediction models for trend forecasting.

Deploy as a web/mobile application for wider reach.

11. APPENDIX

Source Code: No

Dataset Link: <https://www.kaggle.com/datasets/kingabzpro/cosmetics-datasets>

GitHub Link: (Add your GitHub repo link if applicable)

Tableau Public Link:

https://public.tableau.com/views/Dashboard_17510910586680/Dashboard2?:language=en-US&publish=yes&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link

https://public.tableau.com/views/Dashboard2_17510913065740/Dashboard1?:language=en-US&publish=yes&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link

https://public.tableau.com/views/story_17510971753990/Story1?:language=en-US&publish=yes&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link