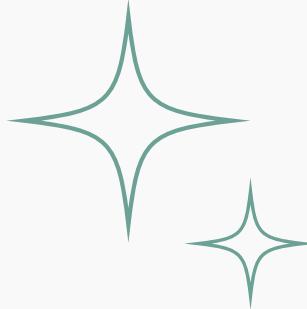


Skincare cosmetics

PRESENTED BY:

MANEESHA M



A close-up photograph of a woman's face. She has a white, gel-like eye mask applied under her left eye. Her right hand is resting against her chin, with her fingers partially hidden in her hair. Her eyes are closed, suggesting relaxation or sleep. The lighting is soft and warm.

INTRODUCTION

This dataset provides comprehensive details about various skincare products, including brand names, product names, prices, customer rankings, ingredients, and their suitability for different skin types, offering valuable insights for product comparison and informed purchasing decisions.

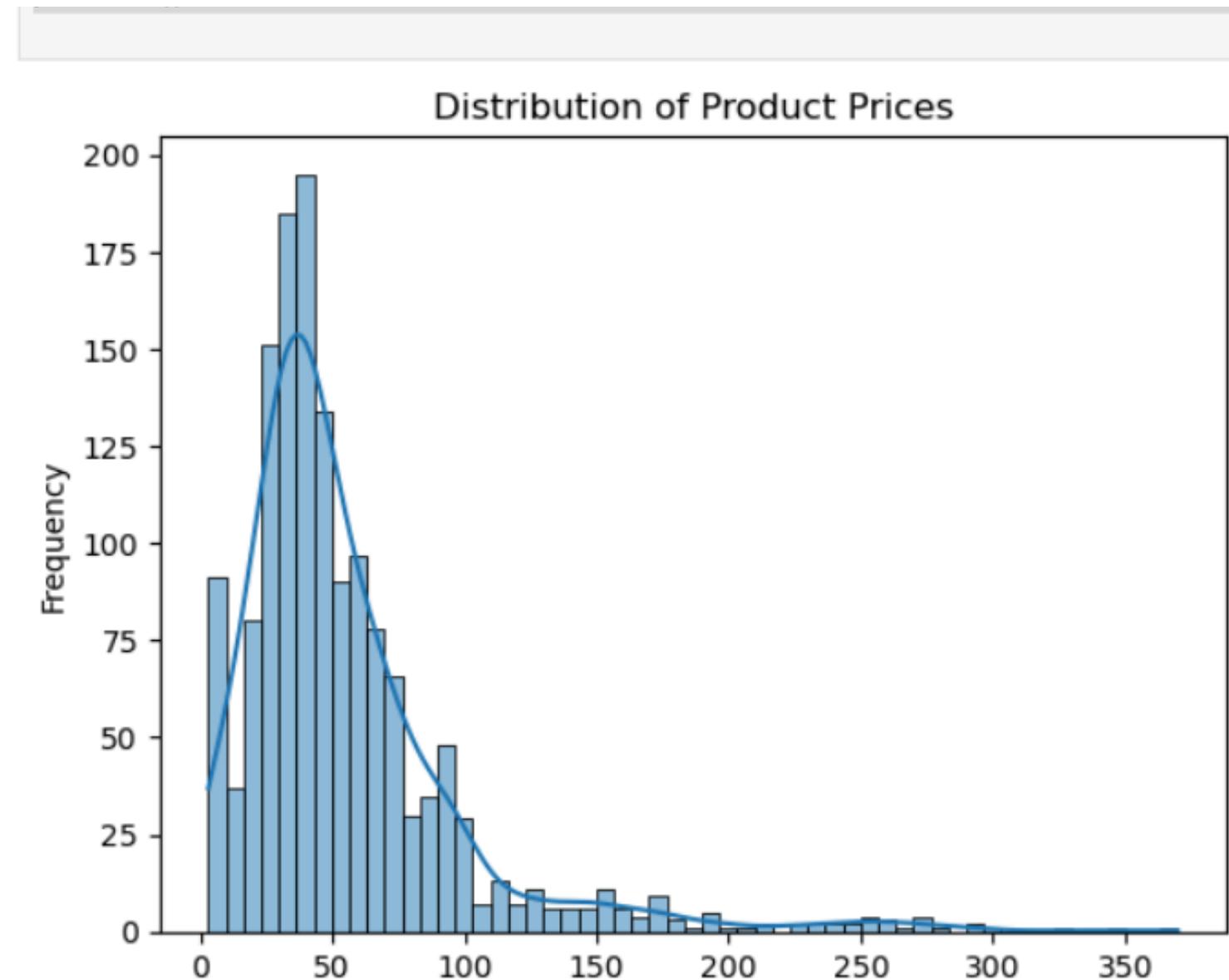
Data cleaning

Data cleaning involves removing duplicates, handling missing values, correcting errors and validating data to ensure quality and accuracy.



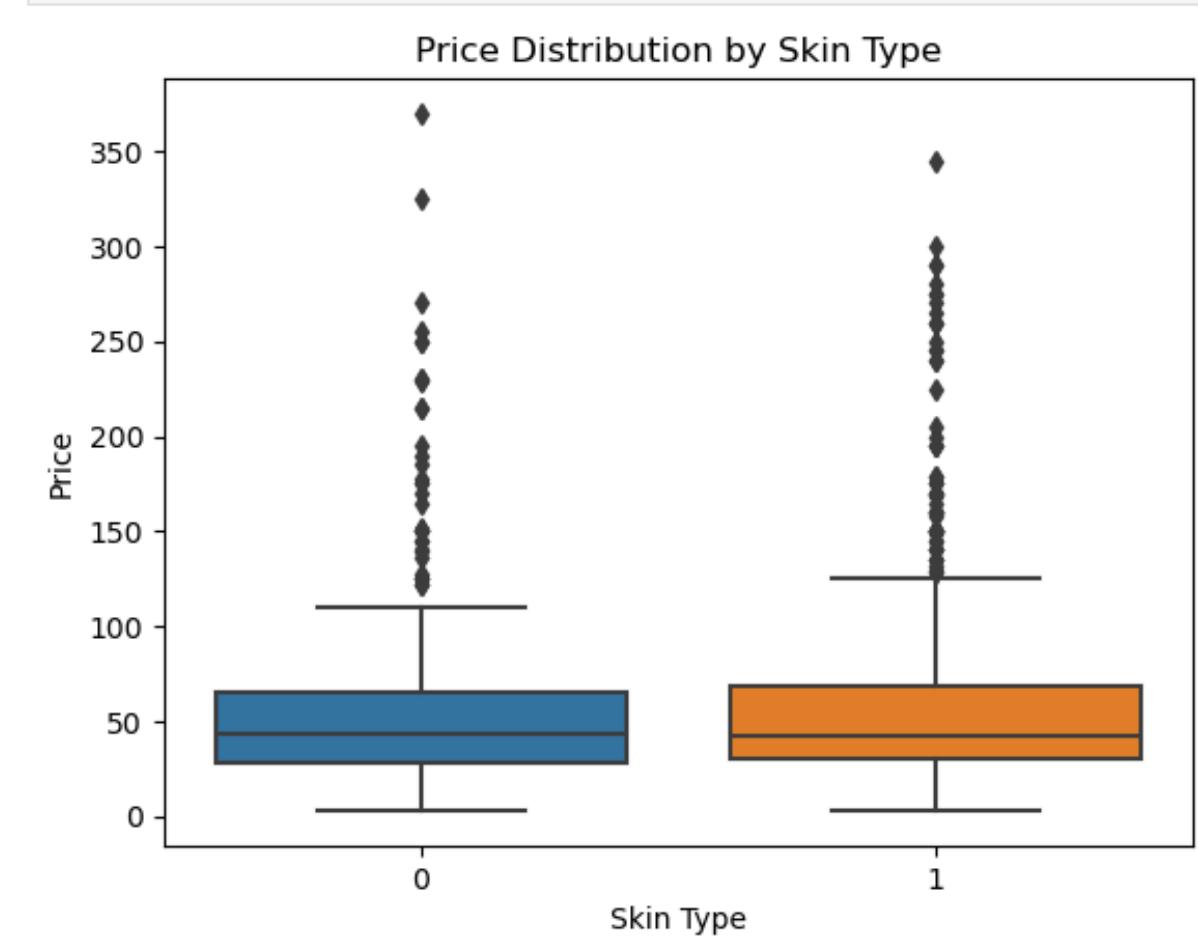
HISTOGRAM

- The histogram with a KDE (Kernel Density Estimate) overlay shows the distribution of product prices.
- If the distribution is skewed, it suggests that most products are priced either lower or higher than the average.



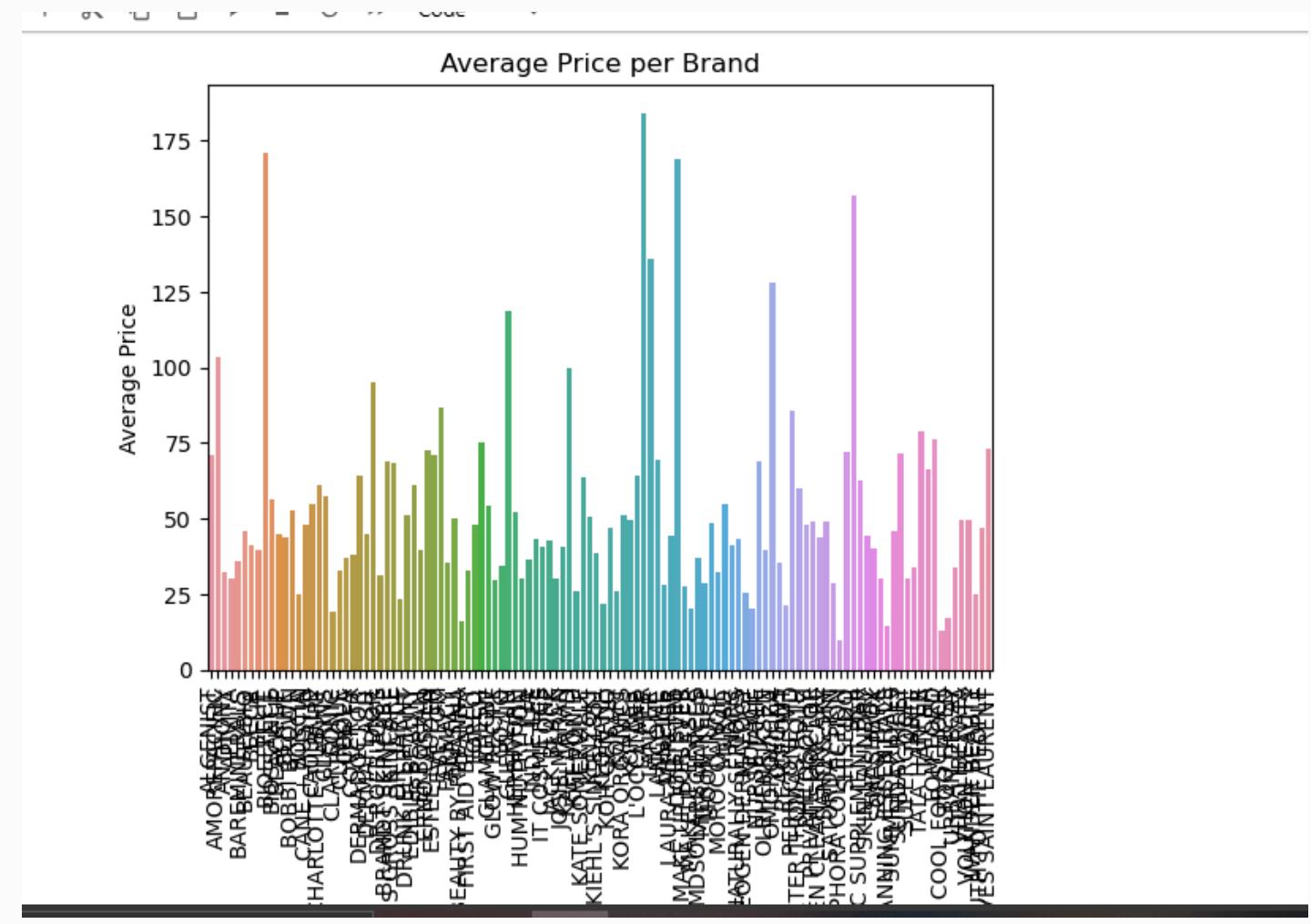
BOX PLOT

- "The box plot shows that Skin Type 1 has a wider price range and more outliers compared to Skin Type 0. Additionally, the median price for Skin Type1 is higher.
- These insights highlight significant differences in price distributions between the two skin types.



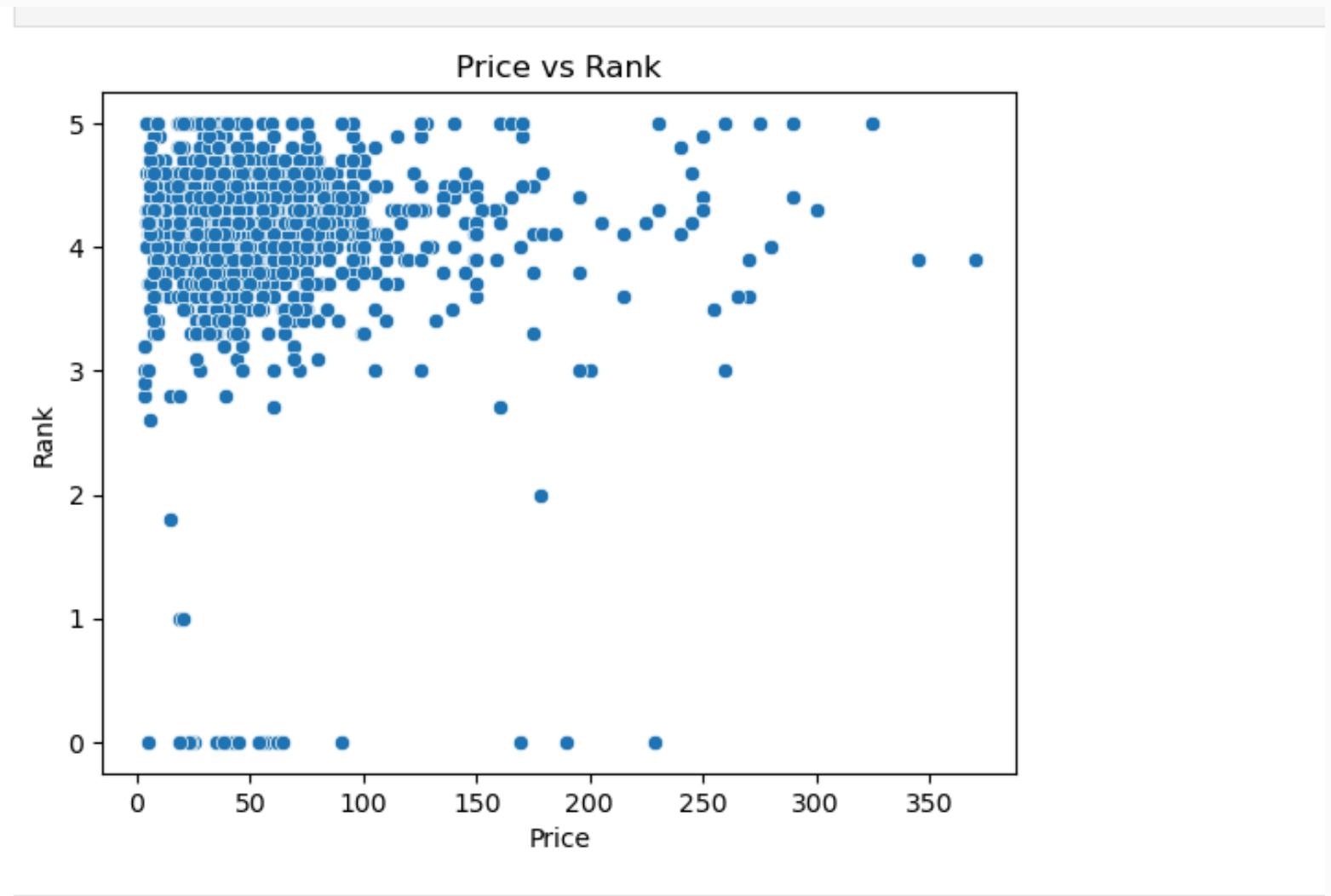
BAR CHART

There is significant variation in average prices across different brands, with some brands having notably higher average prices, while many brands cluster around lower average prices.



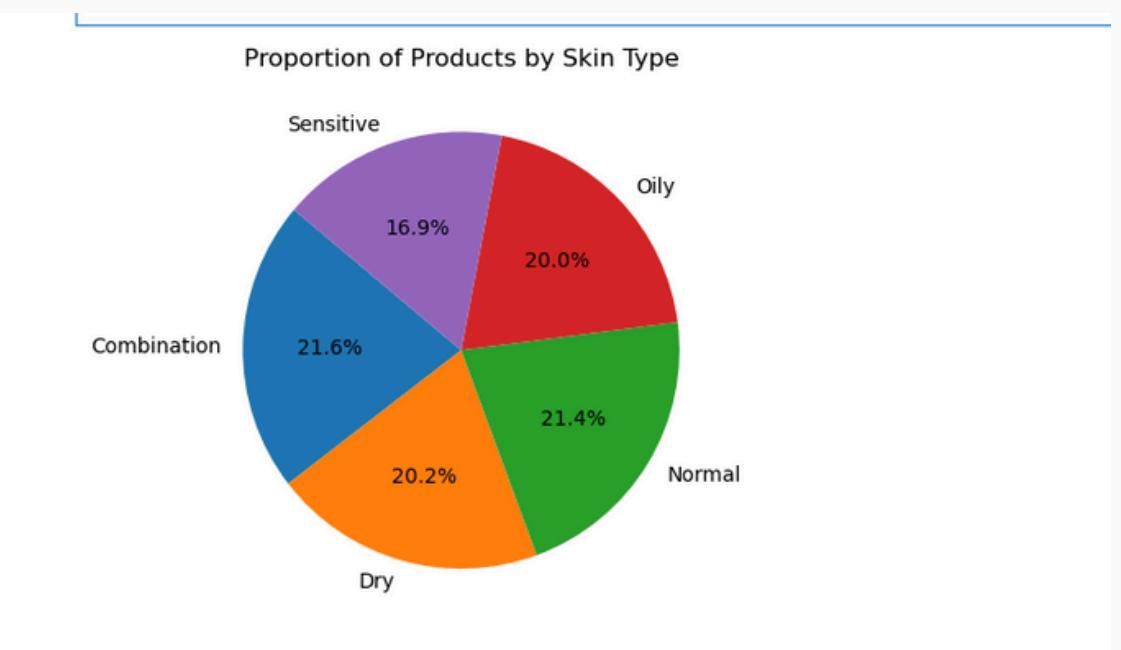
SCATTER PLOT

- The scatter plot titled "Price vs Rank" shows that most data points are clustered in the lower price range (0 to 100) and higher rank range (3 to 5), indicating that higher-ranked items tend to be lower in price.
- As the price increases beyond 100, the data points become more sparsely distributed, suggesting fewer high-priced items.



PIE CHART

- Combination Skin: This segment has the highest proportion of products at 21.6%.
- Normal Skin: Close behind, products for normal skin make up 21.4% of the total.
- Dry Skin: Products for dry skin account for 20.2% of the total.
- Oily Skin: With 20.0% of the products, oily skin also has a substantial share, reflecting the need for products that control oil and prevent breakouts.
- Sensitive Skin: This segment has the smallest proportion at 16.9%..
- overall, combination skin has the highest proportion of products at 21.6%.



ONE SAMPLE TEST

- If the p-value is less than 0.05, you reject the null hypothesis, meaning the average price is significantly different from \$100.
- If the p-value is greater than or equal to 0.05, you fail to reject the null hypothesis, meaning there is not enough evidence to conclude that the average price is significantly different from \$100.

T-STATISTIC: -37.8563960223709
P-VALUE: 1.601397374804304E-219

TWO SAMPLE TEST

- If the p-value is less than 0.05, you reject the null hypothesis, meaning the average prices for combination skin and dry skin are significantly different.
- If the p-value is greater than or equal to 0.05, you fail to reject the null hypothesis, meaning there is not enough evidence to conclude that the average prices for combination skin and dry skin are significantly different.

CONCLUSION

- The dataset provides a comprehensive view of the skincare product market.
- It allows for detailed analysis of product distribution across different skin types.
- Pricing information is included, enabling analysis of price trends.
- Product ranking data is available, which can be used to assess product popularity or quality.
- Ingredient composition can be analyzed to understand common ingredients used for different skin types.

THANK YOU