FIRST TASK: REDWINE_QUALITY ANALYSIS

I've developed a Red Wine Quality Analysis Dashboard, using data on various chemical properties and their influence on wine quality. 🍷 This Power BI dashboard offers a comprehensive look at the factors affecting the quality of red wine, and here's what it presents:

1. Differences Between Chemical Properties: A bar chart showing key chemical differences (like alcohol, citric acid, and residual sugar) between high and low-quality wines.

2. Wine Quality Ratings Distribution: Visualizing the spread of quality ratings to identify patterns and anomalies in the dataset.

3. Alcohol's Impact on Quality: A line graph illustrating how varying alcohol levels correlate with average wine quality.

4. Sugar Content and Sweetness/Quality Perception: A scatter plot highlighting how sugar content influences both sweetness and perceived quality.

5. Overall Chemical Influence on Quality: Representing the combined effect of various chemical properties on the final quality score.
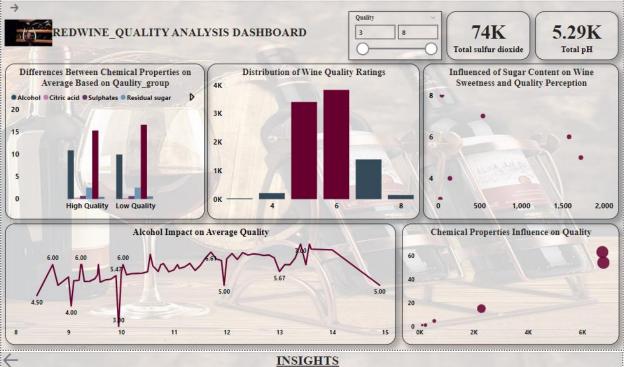
Key metrics include:

Total Sulfur Dioxide: 74K

Total pH: 5.29K

This dashboard helps uncover insights that winemakers and enthusiasts can use to understand how chemical composition impacts wine quality!

DASHBOARD BELOW!!!

REDWINE_QUALITY ANALYSIS DASHBOARD

Quality	
3	8

74K
Total sulfur dioxide

5.29K
Total pH

Differences Between Chemical Properties on Average Based on Qaulity_group

● Alcohol ● Citric acid ● Sulphates ● Residual sugar ▷

High Quality   Low Quality

Distribution of Wine Quality Ratings

Influenced of Sugar Content on Wine Sweetness and Quality Perception

Alcohol Impact on Average Quality

6.00 6.00 6.00 5.47 6.61 7.00 5.67 5.00 4.50 4.00 3.00 5.00

8 9 10 11 12 13 14 15

Chemical Properties Influence on Quality

INSIGHTS

1. Which factors differentiate higher-quality wines (quality 6+) from lower-quality wines?

Visualizations:- (Clustered Column Chart)

Insights:- This helps pinpoint which factors are more prominent in higher-quality wines compared to lower-quality wines.

2. What is the distribution of wine quality ratings?

Visualizations:- (Clustered Column Chart)

Insights:- This gave an overview of how wines are distributed across different quality ratings (from 3 to 8, for example).

3. Does sugar content influence wine sweetness and quality perception?

Visualizations:- (Scatter Chart/Plot)

Insights:- This is showing if there's any direct influence of sugar levels on the perceived quality of the wine.

4. How does alcohol content impact wine quality?

Visualizations:- (Line Chart)

Insights:- This is highlighting whether there's a trend where higher or lower alcohol content results in higher wine quality.

5. What chemical properties influence wine quality?

Visualizations:- (Scatter Chart/Plot)

Insights:- This help identifying which chemical properties have the strongest positive or negative correlation with wine quality.