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Red Wine Quality

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Task Overview

Kaufland wants to improve the quality of the red wine selection the store has.

Kaufland Analytics examined ~1600 samples of red wine ratings and the 11 chemical substances.

The goal is to identify the good-quality-wine drivers (chemical elements) and provide recommendation for the high-quality wine profile based on the top 3 drivers.

Assumption - good wine is considered one with rating above 5 (quality ranges from 1 to 10), splitting the data into high-low quality buckets.

Analysis Methodology

1. Identify factors which are not correlated
2. Explore the best model
3. Find the top three factors
4. Describe high-quality wine factors

*more detailed information about the approach is available on the documentation in GitHub

High-Quality Wine Factors

Alcohol

Attributing to wine with higher % of **ethanol** than water (“stronger”)

> 11

Sulphates

Attributing to wine with fermenting nutrition, which is very important to improve the wine **aroma**

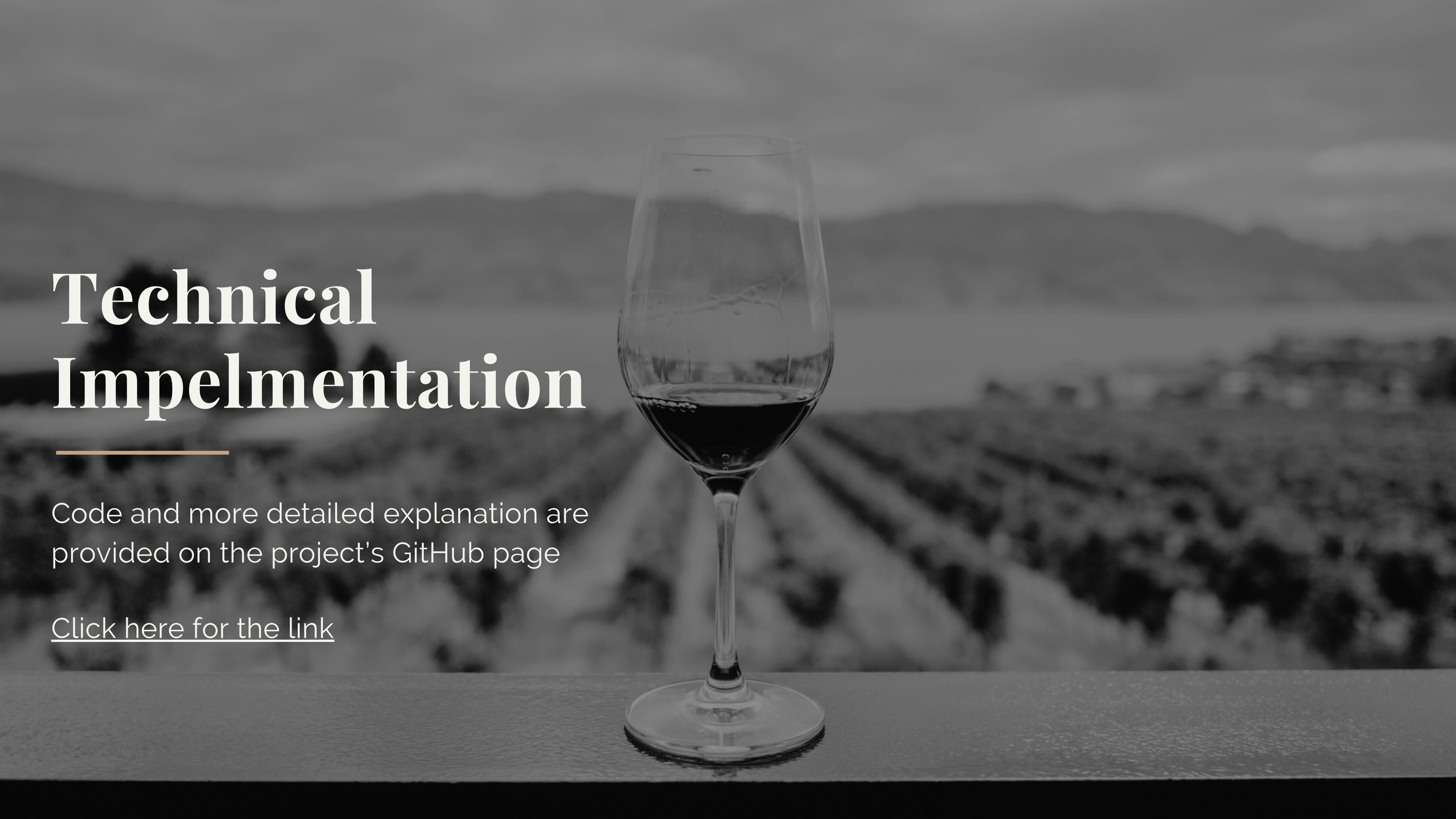
> 0.7

Volatile acidity

Attributing to the **flavor** composition of the wine

< 0.4

*estimations are based on wine samples with quality ratings of 7 and 8



Technical Impelmentation

Code and more detailed explanation are provided on the project's GitHub page

Click here for the link