

## Assignment 3 - Linear Models for Regression

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### Performance

Score	R^2	RSS
0.34	-0.85	129.63
0.26	-1.08	137.73
0.32	-1.43	153.93
0.42	-0.88	121.24
0.32	-1.33	123.10
0.32	-0.67	118.29
0.32	-0.97	125.83
0.39	-0.76	130.34
0.28	-1.41	148.81
0.26	-0.99	122.74

### Model Coefficients

The best score obtained was 0.42. The following table shows the coefficients for this score. The pH, fixed acidity, residual sugar and free sulfur dioxide increase wine quality, while volatile acidity, chlorides, total sulfur dioxide and density decrease wine quality.

Coefficients
6.50531000e-02
-1.11018396e+00

6.14727668e-02
3.51848232e-02
-1.22530107e+00
6.09497513e-03
-2.73913528e-03
-5.47210433e+01
3.37156135e-01
8.19268455e-01
2.59042970e-01

## **Collaboration and Online Sources**

Github used for online collaboration.

## **Specifications**

Python version: 3.8.6

Libraries used: sys,pandas,scikit-learn