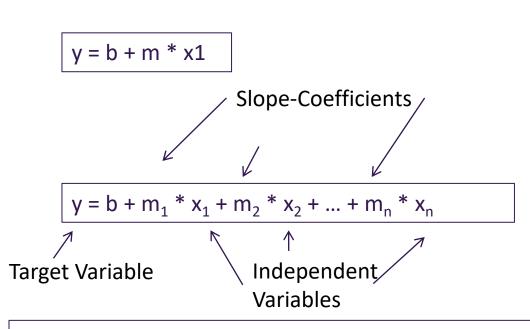
Uni- and Multivariate Regression

Univariate Linear Regression

Multivariate Linear Regression

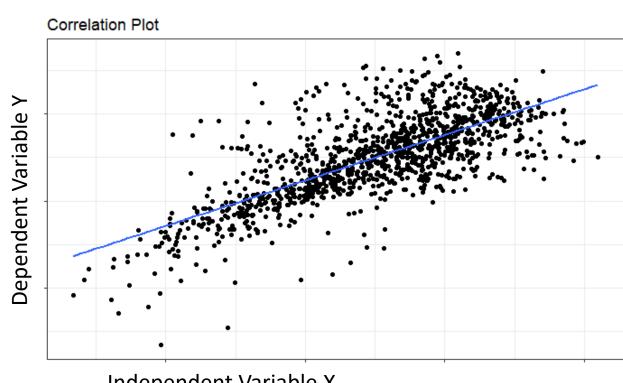


Example: House Price =  $b + m_1 * Size + m_2 * Age + ... + m_n * Quality$ 

**Model Assumptions** 

### Model-Assumptions

- Linearity
- Homoscedasticity
- No Multicollinearity
- Multivariate Normality

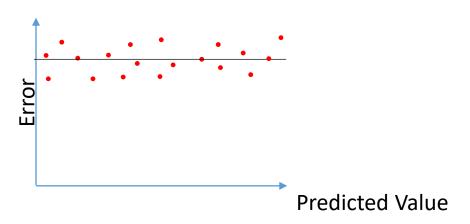


Independent Variable X

**Model Assumptions** 

### **Model-Assumptions**

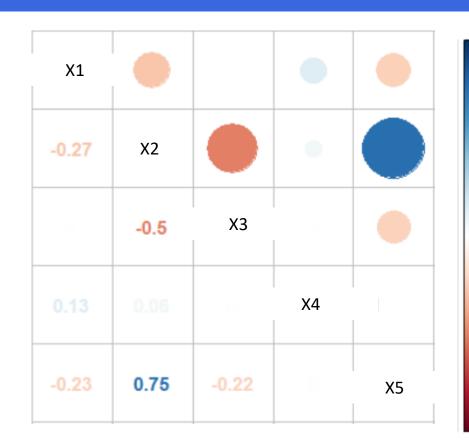
- Linearity
- Homoscedasticity
- No Multicollinearity
- Multivariate Normality



**Model Assumptions** 

#### Model-Assumptions

- Linearity
- Homoscedasticity
- No Multicollinearity
- Multivariate Normality



0.6

0.4

0.2

-0.2

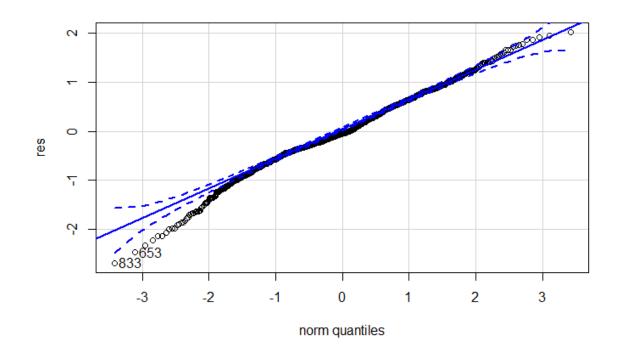
-0.4

-0.8

**Model Assumptions** 

### **Model-Assumptions**

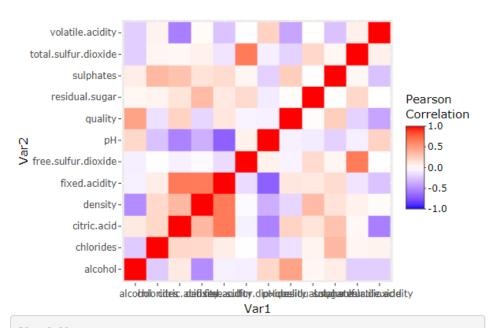
- Linearity
- Homoscedasticity
- No Multicollinearity
- Multivariate Normality



Interactive

### Multivariate Linear Regression - Wine Quality





R2: 0.26