A wine aficionado is investigating what differentiates excellent wines from poor or ordinary ones. Can you help him in his endeavor?

Features

The dataset contains the following features.

Feature	Description
`fixed acidity`	Amount of fixed (non-volatile) acid in the wine.
`volatile acidity`	Amount of acetic (volatile) acid in the wine.
`citric acid`	Amount of citric acid in the wine.
`residual sugar`	Amount of sugar after fermentation.
`chlorides`	The amount of salt in the wine.
`free sulfur dioxide`	Amount of free SO2 in the wine.
`total sulfur dioxide`	Total amount (free and bound) SO2 in the wine.
`density`	The wine's density.
`pH`	The wine's acidity.
`sulphates`	The amount of sulphates in the wine.
`alcohol`	Percentage of alcohol in the wine.
`type`	Whether the wine is red or white.
`great wine` (target)	Whether the wine is great or not.

Questions

- What is the proportion of great wines in the dataset?
- How are the different variables (acidity, alcohol percentage, pH, etc.) distributed in the dataset?
- Are there correlations between pairs of variables (e.g., fixed and volatile acidity)?
- Are the variables distributed similarly in white and red wines?

- How do the different variables affect wine quality?
  - What makes a white wine great?
  - What makes a red wine great?
- (Optional) Build a simple machine learning classification model that predicts if a wine is great or not based on its characteristics.

Download dataset

Task 9: Employee Churn Analysis (HR)

Context

A HR department recruited you as a Data Scientist to help identify the main reasons behind employee churn. The knowledge you extract from their historical data can be leveraged to identify and put in place actions that can help retain talent (e.g., clearer career paths, incentives, etc.).

Features

The dataset contains the following features.

Feature	Description
Age	The employee's age.
Gender	The employees gender.
MaritalStatus	The employee's marital status.
Education	The employee's education level.
EducationField	The employee's field of education.
JobRole	The employee's job title.
Department	The department to which the employee is assigned.
BusinessTravel	Whether the employee's job involves frequent, occasional, or no business travel.
MonthlyIncome	The employee's monthly income.