**APROBACIÓN DE PRÉSTAMOS**

1. **BASE DE DATOS**

loan\_status.csv

1. **OBJETIVO**

El objetivo de este caso es desarrollar un modelo que pueda predecir si se aprobará la solicitud de préstamo de un cliente.

1. **DICCIONARIO DE DATOS:**

|  |  |
| --- | --- |
| **Variable** | **Description** |
| Loan\_ID | Unique Loan ID |
| Gender | Male/ Female |
| Married | Applicant married (Y/N) |
| Dependents | Number of dependents |
| Education | Applicant Education (Graduate/ Under Graduate) |
| Self\_Employed | Self employed (Y/N) |
| ApplicantIncome | Applicant income |
| CoapplicantIncome | Coapplicant income |
| LoanAmount | Loan amount in thousands |
| Loan\_Amount\_Term | Term of loan in months |
| Credit\_History | credit history meets guidelines |
| Property\_Area | Urban/ Semi Urban/ Rural |
| Loan\_Status | Loan approved (Y/N) |

**CÁLIDAD DE VINO**

1. **BASE DE DATOS**

loan\_status.csv

1. **OBJETIVO**

El objetivo de este caso es el de predecir la calidad de un vino. Actualmente la calidad del vino está caracterizada por una variable numérica. Esta variable se convetirá a una clasificación de malo, regular y bueno. Donde:

* Bueno 🡪 >=7
* Regular 🡪 >5 y <7
* Malo 🡪 <=5

1. **DICCIONARIO DE DATOS**

|  |  |
| --- | --- |
| **Variable** | **Description** |
| fixed acidity | Acidez del vino fija |
| volatile acidity | Acidez del vino variable |
| citric acid | Acidez cítrica |
| residual sugar | Azucar residual |
| chlorides | Cloruros |
| free sulfur dioxide | Dióxido de azufre libre |
| total sulfur dioxide | Dióxido de azufre total |
| density | Densidad |
| pH | PH |
| sulphates | Sulfatos |
| alcohol | Alcohol |
| quality (score between 0 and 10) | Calidad (entre cero y uno) |

**APROBAR O NO APROBAR UN CURSO**

1. **BASE DE DATOS**

student-data.csv

1. **OBJETIVO**

El objetivo de este caso será el de crear un modelo predictivo capaz de identificar si un alumno aprobará o no un curso

1. **DICCIONARIO DE DATOS**

|  |  |
| --- | --- |
| **Variable** | **Description** |
| School | student's school (binary: "GP" or "MS") |
| Sex | student's sex (binary: "F" - female or "M" - male) |
| Age | student's age (numeric: from 15 to 22) |
| Address | student's home address type (binary: "U" - urban or "R" - rural) |
| Famsize | family size (binary: "LE3" - less or equal to 3 or "GT3" - greater than 3) |
| Pstatus | parent's cohabitation status (binary: "T" - living together or "A" - apart) |
| Medu | mother's education (numeric: 0 - none, 1 - primary education (4th grade), 2 -€“ 5th to 9th grade, 3 - secondary education or 4 -€“ higher education) |
| Fedu | father's education (numeric: 0 - none, 1 - primary education (4th grade), 2 - 5th to 9th grade, 3 - secondary education or 4 -€“ higher education) |
| Mjob | mother's job (nominal: "teacher", "health" care related, civil "services" (e.g. administrative or police), "at\_home" or "other") |
| Fjob | father's job (nominal: "teacher", "health" care related, civil "services" (e.g. administrative or police), "at\_home" or "other") |
| Reason | reason to choose this school (nominal: close to "home", school "reputation", "course" preference or "other") |
| Guardian | student's guardian (nominal: "mother", "father" or "other") |
| traveltime | home to school travel time (numeric: 1 - <15 min., 2 - 15 to 30 min., 3 - 30 min. to 1 hour, or 4 - >1 hour) |
| Studytime | weekly study time (numeric: 1 - <2 hours, 2 - 2 to 5 hours, 3 - 5 to 10 hours, or 4 - >10 hours) |
| Failures | number of past class failures (numeric: n if 1<=n<3, else 4) |
| Schoolsup | extra educational support (binary: yes or no) |
| Famsup | family educational support (binary: yes or no) |
| Paid | extra paid classes within the course subject (Math or Portuguese) (binary: yes or no) |
| Activities | extra-curricular activities (binary: yes or no) |
| Nursery | attended nursery school (binary: yes or no) |
| Higher | wants to take higher education (binary: yes or no) |
| Internet | Internet access at home (binary: yes or no) |
| Romantic | with a romantic relationship (binary: yes or no) |
| Famrel | quality of family relationships (numeric: from 1 - very bad to 5 - excellent) |
| Freetime | free time after school (numeric: from 1 - very low to 5 - very high) |
| Goout | going out with friends (numeric: from 1 - very low to 5 - very high) |
| Dalc | workday alcohol consumption (numeric: from 1 - very low to 5 - very high) |
| Walc | weekend alcohol consumption (numeric: from 1 - very low to 5 - very high) |
| Health | current health status (numeric: from 1 - very bad to 5 - very good) |
| Absences | number of school absences (numeric: from 0 to 93) |
| passed | did the student pass the final exam (binary: yes or no) |