

1.- Montamos drive en Colab

```
#Montar drive con google colab
from google.colab import drive
drive.mount('/content/drive')
```

2.- Importamos la librería Panda y cargamos el dataset que sea el wine

```
[2] #Importar la librería pandas
import pandas as pd

[3] #Cargar el dataset
df = pd.read_csv('/content/wine.csv')
```

```
[4] #Mostrar los primeros 5 registros del dataset
df.head(5)
```

	Wine	Alcohol	Malic.acid	Ash	AcL	Mg	Phenols	Flavanoids	Nonflavanoid.phenols	Proanth	Color.int	Hue	OD	Proline	Color
0	1	14.23	1.71	2.43	15.6	127	2.80	3.06	0.28	2.29	5.64	1.04	3.92	1065	Tinto
1	1	13.20	1.78	2.14	11.2	100	2.65	2.76	0.26	1.28	4.38	1.05	3.40	1050	Tinto
2	1	13.16	2.36	2.67	18.6	101	2.80	3.24	0.30	2.81	5.68	1.03	3.17	1185	Tinto
3	1	14.37	1.95	2.50	16.8	113	3.85	3.49	0.24	2.18	7.80	0.86	3.45	1480	Tinto
4	1	13.24	2.59	2.87	21.0	118	2.80	2.69	0.39	1.82	4.32	1.04	2.93	735	Tinto

```
[5] #Modificar la tabla
X = df.iloc[:,1:-1]
X.head(5)
```

	Alcohol	Malic.acid	Ash	AcL	Mg	Phenols	Flavanoids	Nonflavanoid.phenols	Proanth	Color.int	Hue	OD	Proline
0	14.23	1.71	2.43	15.6	127	2.80	3.06	0.28	2.29	5.64	1.04	3.92	1065
1	13.20	1.78	2.14	11.2	100	2.65	2.76	0.26	1.28	4.38	1.05	3.40	1050
2	13.16	2.36	2.67	18.6	101	2.80	3.24	0.30	2.81	5.68	1.03	3.17	1185
3	14.37	1.95	2.50	16.8	113	3.85	3.49	0.24	2.18	7.80	0.86	3.45	1480
4	13.24	2.59	2.87	21.0	118	2.80	2.69	0.39	1.82	4.32	1.04	2.93	735

```
[6] #Revisar la info
X.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 178 entries, 0 to 177
Data columns (total 13 columns):
 #   Column                Non-Null Count  Dtype  
---  -
 0   Alcohol               178 non-null   float64
 1   Malic.acid            178 non-null   float64
 2   Ash                   178 non-null   float64
 3   Acl                   178 non-null   float64
 4   Mg                    178 non-null   int64  
 5   Phenols               178 non-null   float64
 6   Flavanoids            178 non-null   float64
 7   Nonflavanoid.phenols  178 non-null   float64
 8   Proanth               178 non-null   float64
 9   Color.int             178 non-null   float64
10   Hue                   178 non-null   float64
11   OD                    178 non-null   float64
12   Proline               178 non-null   int64  
dtypes: float64(11), int64(2)
memory usage: 18.2 KB
```



```
y = df['Color']
y.head(5)
```

```
0    Tinto
1    Tinto
2    Tinto
3    Tinto
4    Tinto
Name: Color, dtype: object
```

```
[8] #Importar librerías correspondientes para realizar el KNN y SVC (Utilizaremos la librería sklearn)
#Soporte de vectores "SVM"
from sklearn.svm import SVC
#Algoritmo de k vecinos mas cercanos "KNN"
from sklearn.neighbors import KNeighborsClassifier
#Hacer validaciones
from sklearn.model_selection import cross_val_score
```

```
✓ [9] #Crear el modelo de K vecinos mas cercanos "KNN"  
s knn = KNeighborsClassifier()  
knn_scores = cross_val_score(knn,X,y,cv=5,scoring='accuracy')  
#Sacar el promedio de las corridas  
knn_scores.mean()
```

```
0.6915873015873016
```