

In []: #9

```
from google.colab import files
uploaded = files.upload()

import numpy as np
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.neighbors import KNeighborsClassifier
from sklearn.metrics import classification_report

df = pd.read_csv('Iris.csv')
print(df.info())
print(df['variety'].value_counts())
print(df.head())

features = df.iloc[:, :-1].values
label = df.iloc[:, 4].values
print(features)

xtrain, xtest, ytrain, ytest = train_test_split(features, label, test_size=0.2)
model_KNN = KNeighborsClassifier(n_neighbors=5)
model_KNN.fit(xtrain, ytrain)

print(classification_report(label, model_KNN.predict(features)))
```

Upload widget is only available when the cell has been executed
in the current browser session. Please rerun this cell to enable.

```
Saving Iris.csv to Iris.csv
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 150 entries, 0 to 149
Data columns (total 5 columns):
 #   Column      Non-Null Count  Dtype  
--- 
 0   sepal.length    150 non-null   float64 
 1   sepal.width     150 non-null   float64 
 2   petal.length    150 non-null   float64 
 3   petal.width     150 non-null   float64 
 4   variety        150 non-null   object  
dtypes: float64(4), object(1)
memory usage: 6.0+ KB
None
variety
Setosa      50
Versicolor  50
Virginica   50
Name: count, dtype: int64
   sepal.length  sepal.width  petal.length  petal.width  variety
0          5.1       3.5         1.4        0.2  Setosa
1          4.9       3.0         1.4        0.2  Setosa
2          4.7       3.2         1.3        0.2  Setosa
3          4.6       3.1         1.5        0.2  Setosa
4          5.0       3.6         1.4        0.2  Setosa
[[5.1 3.5 1.4 0.2]
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[5.9 3.  5.1 1.8]]
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	precision	recall	f1-score	support
Setosa	1.00	1.00	1.00	50
Versicolor	0.98	0.94	0.96	50
Virginica	0.94	0.98	0.96	50
accuracy			0.97	150
macro avg	0.97	0.97	0.97	150
weighted avg	0.97	0.97	0.97	150