Eshwara - 19113077

KNN using Iris dataset

```
import pandas as pd
import numpy as np
from sklearn import datasets
from sklearn.model_selection import train_test_split
from sklearn.neighbors import KNeighborsClassifier
from sklearn.metrics import accuracy_score
```

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

Choose Files Iris.csv

- **Iris.csv**(application/vnd.ms-excel) - 5107 bytes, last modified: 8/27/2021 - 100% done

```
Saving Iris.csv to Iris (1).csv
```

```
data = pd.read_csv('Iris.csv')
```

```
data
```

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	1	5.1	3.5	1.4	0.2	Iris-setosa
1	2	4.9	3.0	1.4	0.2	Iris-setosa
2	3	4.7	3.2	1.3	0.2	Iris-setosa
3	4	4.6	3.1	1.5	0.2	Iris-setosa
4	5	5.0	3.6	1.4	0.2	Iris-setosa
...	...	...	...	...	...	...
145	146	6.7	3.0	5.2	2.3	Iris-virginica
146	147	6.3	2.5	5.0	1.9	Iris-virginica
147	148	6.5	3.0	5.2	2.0	Iris-virginica
148	149	6.2	3.4	5.4	2.3	Iris-virginica
149	150	5.9	3.0	5.1	1.8	Iris-virginica

150 rows × 6 columns

```
feature_columns = ['SepalLengthCm', 'SepalWidthCm', 'PetalLengthCm','PetalWidthCm']
```

```
X = data[feature_columns].values
y = data['Species'].values
```

```
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.3, random_state =
```

```
classifier = KNeighborsClassifier(n_neighbors=3)
```

```
classifier.fit(X_train, y_train)
y_pred = classifier.predict(X_test)
```

```
print(accuracy_score(y_test, y_pred))
```

```
0.9777777777777777
```

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