




```
from sklearn.datasets import load_iris
data=load_iris()


import pandas as pd
df=pd.DataFrame(data.data,columns=data.feature_names)
df["target"]=data.target
df.head()
```








	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)	target	
0	5.1	3.5	1.4	0.2	0	
1	4.9	3.0	1.4	0.2	0	
2	4.7	3.2	1.3	0.2	0	
3	4.6	3.1	1.5	0.2	0	
4	5.0	3.6	1.4	0.2	0	

Next steps: [Generate code with df](#) [View recommended plots](#) [New interactive sheet](#)

```
df.describe()
```



	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)	target	
count	150.000000	150.000000	150.000000	150.000000	150.000000	
mean	5.843333	3.057333	3.758000	1.199333	1.000000	
std	0.828066	0.435866	1.765298	0.762238	0.819232	
min	4.300000	2.000000	1.000000	0.100000	0.000000	
25%	5.100000	2.800000	1.600000	0.300000	0.000000	
50%	5.800000	3.000000	4.350000	1.300000	1.000000	
75%	6.400000					
max	7.900000	4.400000	6.900000	2.500000	2.000000	

 What can I help you build?  

```
df.info()
```

```
↗ <class 'pandas.core.frame.DataFrame'>
RangeIndex: 150 entries, 0 to 149
Data columns (total 5 columns):
#   Column                Non-Null Count  Dtype
---  -
0   sepal length (cm)      150 non-null   float64
1   sepal width (cm)       150 non-null   float64
2   petal length (cm)      150 non-null   float64
3   petal width (cm)       150 non-null   float64
4   target                 150 non-null   int64
dtypes: float64(4), int64(1)
memory usage: 6.0 KB
```

```
from sklearn.preprocessing import StandardScaler
sc=StandardScaler()
x=df.drop("target",axis=1)
y=df["target"]
```

```
from sklearn.model_selection import train_test_split
x_train,x_test,y_train,y_test=train_test_split(x,y,test_size=0.2,random_state=25)
x_train_scaled=sc.fit_transform(x_train)
x_test_scaled=sc.transform(x_test)
```

```
from sklearn.neighbors import KNeighborsClassifier
knn=KNeighborsClassifier()
knn
```

```
↗ KNeighborsClassifier ⓘ ?
KNeighborsClassifier()
```

```
knn.fit(x_train,y_train)
```

```
↳ 
```

```
y_pred=knn.predict(x_test)
from sklearn.metrics import classification_report
print(classification_report(y_test,y_pred))
```

```
↳ 
```

	precision	recall	f1-score	support
0	1.00	1.00	1.00	9
1	1.00	0.85	0.92	13
2	0.80	1.00	0.89	8
accuracy			0.93	30
macro avg	0.93	0.95	0.94	30
weighted avg	0.95	0.93	0.93	30

```
result=[[4.9,3.0,1.4,0.2]]
knn.predict(result)
```

```
↳ array([0])
```