```
import pandas as pd
from sklearn import datasets
X,Y=datasets.load_iris(return_X_y=True,as_frame=True)
```

```
X.describe()
```

	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)
count	150.000000	150.000000	150.000000	150.000000
mean	5.843333	3.057333	3.758000	1.199333
std	0.828066	0.435866	1.765298	0.762238
min	4.300000	2.000000	1.000000	0.100000
25%	5.100000	2.800000	1.600000	0.300000
50%	5.800000	3.000000	4.350000	1.300000
75%	6.400000	3.300000	5.100000	1.800000
max	7.900000	4.400000	6.900000	2.500000

```
X.isna().sum()
```

```
sepal length (cm)    0
sepal width (cm)     0
petal length (cm)    0
petal width (cm)     0
dtype: int64
```

```
from sklearn.linear_model import LogisticRegression
model=LogisticRegression(tol=0.1,solver='lbfgs')
```

```
Y
```

```
0      0
1      0
2      0
3      0
4      0
      ..
145    2
146    2
147    2
148    2
149    2
Name: target, Length: 150, dtype: int64
```

```
from sklearn.model_selection import train_test_split
X_train,X_test,Y_train,Y_test=train_test_split(X,Y,random_state=96,test_size=0.3)
```

```
model.fit(X_train,Y_train)
```

```
LogisticRegression
LogisticRegression(tol=0.1)
```

```
model.score(X_train,Y_train)
```

```
0.9714285714285714
```

```
model.score(X_test,Y_test)
```

```
0.9777777777777777
```

```
Y_predict=model.predict(X_test)
```

```
from sklearn.metrics import r2_score
```

```
r2_score(Y_test,Y_predict)
```

```
0.964171974522293
```