ashish kumar 2019UCO1518

```
import pandas as pd
import numpy as np
from sklearn import linear_model
import matplotlib.pyplot as plt

df = pd.read_csv('Linear_reg_iris.csv')
df
```

	X	Y
0	0.08	1.472
1	0.52	1.802
2	0.60	1.548
3	0.22	1.390
4	0.05	2.141
...	...	...
995	0.41	2.245
996	0.71	3.471
997	0.06	0.796
998	0.40	2.406
999	0.48	1.870

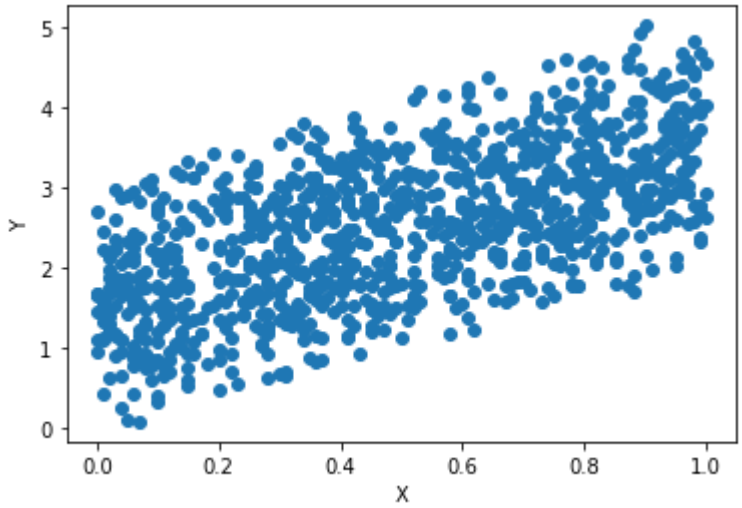
1000 rows × 2 columns

scatter plot

```
%matplotlib inline
```

```
plt.xlabel("X")
plt.ylabel("Y")
plt.scatter(df.X, df.Y)
```

```
<matplotlib.collections.PathCollection at 0x7fd8f5638950>
```




```
new_df = df.drop('Y', axis='columns')
new_df
```

	X
0	0.08
1	0.52
2	0.60

```
Y = df.Y
Y
```

```
0      1.472
1      1.802
2      1.548
3      1.390
4      2.141
       ...
995    2.245
996    3.471
997    0.796
998    2.406
999    1.870
Name: Y, Length: 1000, dtype: float64
```

```
reg = linear_model.LinearRegression()
reg.fit(new_df, Y)
```

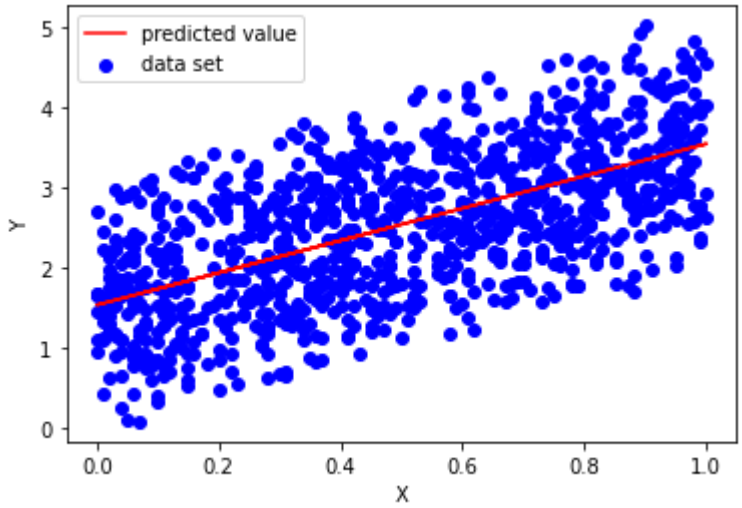
```
LinearRegression(copy_X=True, fit_intercept=True, n_jobs=None, normalize=False)
```

```
pred = reg.predict(new_df)
```

graph of the LR Model on iris dataset

```
plt.xlabel("X")
plt.ylabel("Y")
plt.scatter(df.X, df.Y, color="blue", label="data set")
plt.plot(df.X, pred, color="red", label="predicted value")
plt.legend()
```

```
plt.show()
```



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