

```
import numpy as np
import pandas as pd
import matplotlib as plt
import seaborn as sns
df=pd.read_excel(r"C:\Users\Dell\Documents\simple regression.xlsx")
```

```
df
```

	Hours	Scores
0	2.5	21
1	5.1	47
2	3.2	27
3	8.5	75
4	3.5	30
5	1.5	20
6	9.2	88
7	5.5	60
8	8.3	81
9	2.7	25
10	7.7	85
11	5.9	62
12	4.5	41
13	3.3	42
14	1.1	17
15	8.9	95
16	2.5	30
17	1.9	24
18	6.1	67
19	7.4	69
20	2.7	30
21	4.8	54

22	3.8	35
23	6.9	76
24	7.8	86

```
df.head()
```

	Hours	Scores
0	2.5	21
1	5.1	47
2	3.2	27
3	8.5	75
4	3.5	30

```
Scores = df['Scores'].values
```

```
Hours = df['Hours'].values
```

```
from sklearn.model_selection import train_test_split
```

```
X = Hours.reshape(-1, 1)
```

```
y = Scores
```

```
X_train, X_test, y_train, y_test = train_test_split(Hours, Scores, test_size=0.2, random_state=0)
```

```
X_train = X_train.reshape(-1, 1)
```

```
X_test = X_test.reshape(-1, 1)
```

```
from sklearn.preprocessing import StandardScaler
```

```
scaler = StandardScaler()
```

```
X_train_scaled = scaler.fit_transform(X_train,y_train)
```

```
X_test_scaled = scaler.transform(X_test)
```

```
from sklearn.linear_model import LinearRegression
```

```
model = LinearRegression()
```

```
model.fit(X_train_scaled, y_train)
```

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

```
y_pred
```

```
array([ 90.90146769, 132.77979774, 236.24390728, 115.53577949,  
       199.29243959])
```

```
Hours = np.array([[9.25]])
```

```
predicted_percentage = model.predict(Hours)
```

```
print("Predicted percentage:", predicted_percentage[0])
```

```
Predicted percentage: 281.81738410551657
```