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# Roll No:- 639
# PRN:-202201040102
# Divsion:-F(F2)
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```
import numpy as nm
import matplotlib.pyplot as mtp
import pandas as pd
```

```
data_set= pd.read_csv('/content/drive/MyDrive/Colab Notebooks/Salary_Data (3).xls')
data_set
```

	YearsExperience	Salary
0	1.1	39343.0
1	1.3	46205.0
2	1.5	37731.0
3	2.0	43525.0
4	2.2	39891.0
5	2.9	56642.0
6	3.0	60150.0
7	3.2	54445.0
8	3.2	64445.0
9	3.7	57189.0
10	3.9	63218.0
11	4.0	55794.0
12	4.0	56957.0
13	4.1	57081.0
14	4.5	61111.0
15	4.9	67938.0
16	5.1	66029.0
17	5.3	83088.0
18	5.9	81363.0
19	6.0	93940.0
20	6.8	91738.0
21	7.1	98273.0
22	7.9	101302.0
23	8.2	113812.0
24	8.7	109431.0
25	9.0	105582.0
26	9.5	116969.0
27	9.6	112635.0
28	10.3	122391.0
29	10.5	121872.0

```
x= data_set.iloc[:, :-1].values
y= data_set.iloc[:, : 1].values
print(x)
print(y)
```

Files x



- ..
- .config
- drive
 - .Trash-0
 - .file-revisions-by-id
 - .shortcut-targets-by-id
 - MyDrive
 - Colab Notebooks
 - 1686715083343_all_data.csv
 - Assign.01.ipynb
 - Copy of Copy of Untitled2.ipynb
 - Copy of Untitled11.ipynb
 - Copy of Untitled16 (1).ipynb
 - Copy of Untitled16.ipynb
 - Copy of Untitled2.ipynb
 - Copy of Untitled24.ipynb
 - Salary_Data (3).xls
 - Sales.csv
 - Untitled
 - Untitled0.ipynb
 - Untitled1.ipynb
 - Untitled10.ipynb
 - Untitled11.ipynb
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 - Untitled5.ipynb
 - Untitled6.ipynb
 - Untitled7.ipynb
 - Untitled8.ipynb
 - Untitled9.ipynb
 - emp.2.csv
 - emp.3.csv
 - emp.4.csv
 - file1.csv
 - file2.csv
 - file3.csv
 - practicalAssignment3.ipynb
 - EDS
 - IA Improvement _22-23

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```
# Splitting the dataset into training and test set.
from sklearn.model_selection import train_test_split
x_train, x_test, y_train, y_test= train_test_split(x,y, test_size=1/3,random_state=0)
```

```
print(x_train)
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print(x_test)
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print(y_train)

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print(y_test)

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
# Fitting the Simple Linear Regression model to the training dataset
from sklearn.linear_model import LinearRegression
regressor= LinearRegression()
regressor.fit(x_train,y_train)

LinearRegression

# Prediction of Test and Training set result
y_pred= regressor.predict(x_test)
x_pred= regressor.predict(x_train)
print(x_pred)
print(y_pred)

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```
mtp.scatter(x_train,y_train,color="green")
mtp.plot(x_train,x_pred,color="red")
mtp.title("salary vs Experience(Training Dataset)")
mtp.xlabel("years of Experience")
mtp.ylabel("salary(In Rupees)")
mtp.show()
```



```
# Visualizing the Test set results
mtp.scatter(x_test,y_test,color="blue")
mtp.plot(x_train,x_pred,color="red")
mtp.title("salary vs Experience(Test Dataset)")
mtp.xlabel("years of Experience")
mtp.ylabel("salary(In Rupees)")
mtp.show()
```



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