Name: Harsh Patel

Roll NO: A42

Experiment No:3

Aim: Write a python program to evaluate a Linear Regression on Diabetic Dataset

Code :

```
# Simple Linear Regression
# Importing the libraries
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd

# Importing the dataset
dataset = pd.read_csv('/content/Salary_Data.csv')

X = dataset.iloc[:, :-1].values
y = dataset.iloc[:, 1].values

# Splitting the dataset into the Training set 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)

# Fitting Simple Linear Regression to the Training set
from sklearn.linear_model import LinearRegression
regressor = LinearRegression()
regressor.fit(X_train, y_train)

# Predicting the Test set results
y_pred = regressor.predict(X_test)

# Visualising the Training set results
plt.scatter(X_train, y_train, color='red')
plt.plot(X_train, regressor.predict(X_train), color='blue')
plt.title('Salary vs Experience (Training set)')
plt.xlabel('Years of Experience')
plt.ylabel('Salary')
plt.show()
# Visualising the Test set results
plt.scatter(X_test, y_test, color='red')
plt.plot(X_test, y_pred, color='blue')  # Using y_pred instead of
regressor.predict(X_train)
plt.title('Salary vs Experience (Test set)')
plt.xlabel('Years of Experience')
plt.ylabel('Salary')
plt.show()
```

OUTPUT:-


Salary vs Experience (Training set)
Salary
Years of Experience
120000
100000
80000
60000
40000
2
4
6
8
10


Salary vs Experience (Test set)
Salary
Years of Experience
120000
100000
80000
60000
40000
2
4
6
8
10