

```
In [4]: # Importing the libraries
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
```

```
In [6]: # Importing the dataset
dataset = pd.read_csv('Salary_Data.csv')
X = dataset.iloc[:, :-1].values
y = dataset.iloc[:, -1].values
```

```
In [7]: # 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)
```

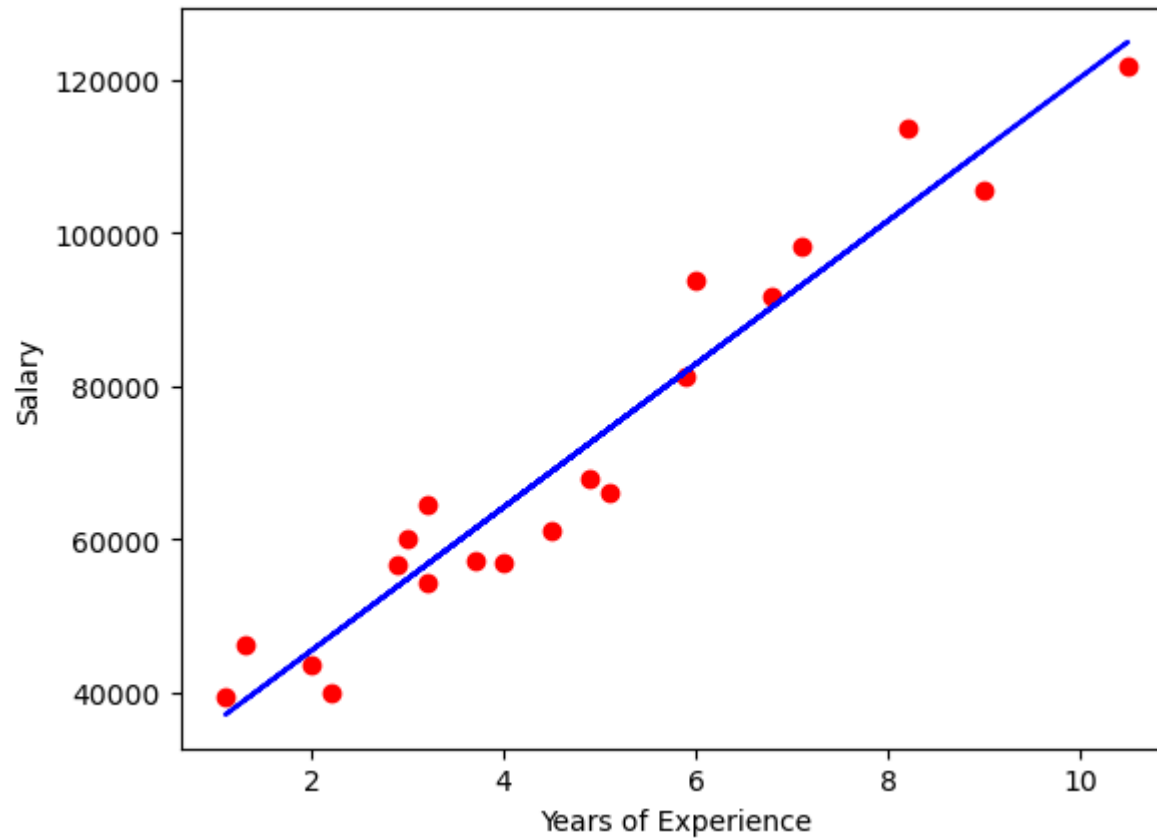
```
In [8]: # Training the Simple Linear Regression model on the Training set
from sklearn.linear_model import LinearRegression
regressor = LinearRegression()
regressor.fit(X_train, y_train)
```

```
Out[8]:
```

▼ LinearRegression
LinearRegression()

In [15]:

```
# 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()
```



```
In [17]: # Visualising the Test set results
plt.scatter(X_test, y_test, color = 'red')
plt.plot(X_train, regressor.predict(X_train), color = 'blue')
plt.title('Salary vs Experience (Test set)')
plt.xlabel('Years of Experience')
plt.ylabel('Salary')
plt.show()
```



```
In [26]: y_pred=regressor.predict(X_test)
print(y_pred)
```

```
[ 40835.10590871 123079.39940819  65134.55626083  63265.36777221
 115602.64545369 108125.8914992  116537.23969801  64199.96201652
 76349.68719258 100649.1375447 ]
```

```
In [27]: # Predicting the salary for 15 years of experience
years_of_experience = 15
predicted_salary = regressor.predict([[years_of_experience]])

print("Predicted salary for 15 years of experience:", predicted_salary[0])
```

Predicted salary for 15 years of experience: 167005.32889086677

```
In [28]: # Predicting the salary for 20 years of experience
years_of_experience = 20
predicted_salary = regressor.predict([[years_of_experience]])

print("Predicted salary for 20 years of experience:", predicted_salary[0])
```

Predicted salary for 20 years of experience: 213735.0411064786

```
In [32]: # Predicting the salary for 27 years of experience
years_of_experience = 27
predicted_salary = regressor.predict([[years_of_experience]])

print("Predicted salary for 27 years of experience:", predicted_salary[0])
```

Predicted salary for 27 years of experience: 279156.6382083352

```
In [33]: # Predicting the salary for 4.5 years of experience
years_of_experience = 4.5
predicted_salary = regressor.predict([[years_of_experience]])

print("Predicted salary for 4.5 years of experience:", predicted_salary[0])
```

Predicted salary for 4.5 years of experience: 68872.93323808187

```
In [34]: # Predicting the salary for 0.5 years of experience
years_of_experience = 0.5
predicted_salary = regressor.predict([[years_of_experience]])

print("Predicted salary for 0.5 years of experience:", predicted_salary[0])
```

Predicted salary for 0.5 years of experience: 31489.163465592377

In [ ]: