Linear Regression

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```python
[12]: # Simple Linear Regression

      # Importing the libraries

      import numpy as np
      import matplotlib.pyplot as plt
      import pandas as pd
```

```python
[13]: # Importing the dataset

      dataset = pd.read_csv('D:\Salary_Data.csv')
      X = dataset.iloc[:, :-1].values
      y = dataset.iloc[:, -1].values
```

```python
[14]: # 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)
```

```python
[15]: # Training the Simple Linear Regression model on the Training set

      from sklearn.linear_model import LinearRegression
      regressor = LinearRegression()
      regressor.fit(X_train, y_train)
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[15]: LinearRegression(copy_X=True, fit_intercept=True, n_jobs=None, normalize=False)
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```python
[16]: # Predicting the Test set resultsy_pred =

      regressor.predict(X_test)
```
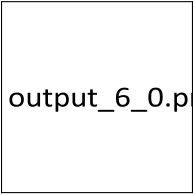
```python
[17]: # Visualising the Training set results

      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')
```
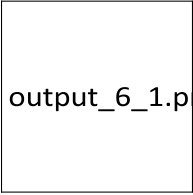
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plt.ylabel('Salary')
plt.show()

# 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()
```

output_6_0.png

output_6_1.png

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