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In [1]: # Import the required library
import pandas as pd
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```
In [7]: # Load the dataset
df=pd.read_csv("C:/Users/user/Desktop/ANJALI RAJ/linear regression/Salary_Data")
df.head()
```

Out[7]:

	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

```
In [15]: from sklearn.model_selection import train_test_split
x=df[["YearsExperience"]]
y=df["Salary"]
x_train,x_test,y_train,y_test=train_test_split(x,y,test_size=0.20,random_state=)
```

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In [16]: # Train the model
from sklearn.linear_model import LinearRegression
model=LinearRegression()
model.fit(x_train,y_train)
```

Out[16]:

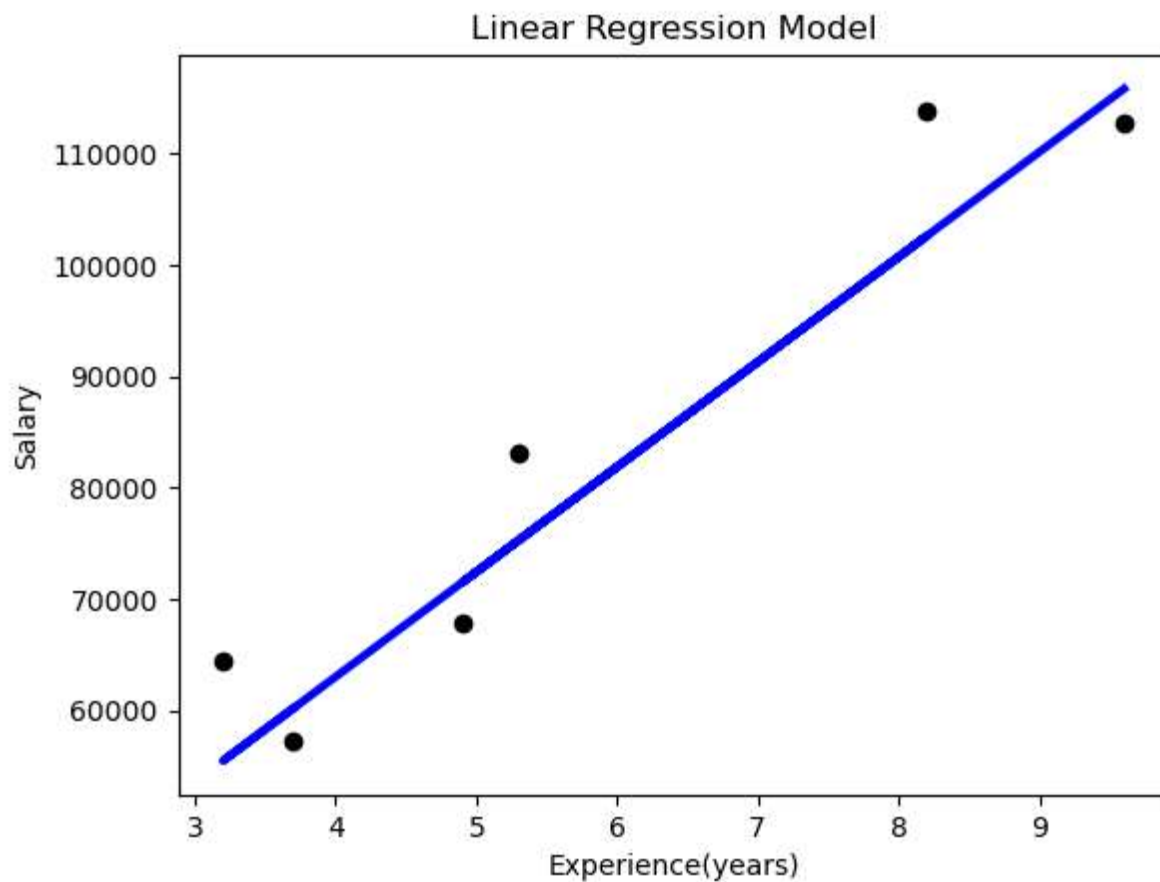
```
LinearRegression
LinearRegression()
```

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In [17]: # Testing/ Predicting the model
y_predict=model.predict(x_test)
```

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In [22]: # Evaluate the Performance of the ML Model
from sklearn.metrics import mean_squared_error
mse=mean_squared_error(y_test,y_predict)
print(f"mean_squared_error.{mse}")
```

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mean_squared_error.49830096.85590839
```

```
In [24]: # Plotting the regression line
import matplotlib.pyplot as plt
plt.scatter(x_test,y_test,color="black")
plt.plot(x_test,y_predict,color="blue",linewidth=3)
plt.xlabel("Experience(years)")
plt.ylabel("Salary")
plt.title("Linear Regression Model")
plt.show()
```



In [ ]: