simple linear regression

Step 1 Import libraries

```
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
import sklearn
```

Step-2 Import Data

```
df=pd.read_csv("salary_data.csv")
df.head()
```

	YearsExperience	Salary
0	1.1	39343
1	1.3	46205
2	1.5	37731
3	2.0	43525
4	2.2	39891


```
X=df[["YearsExperience"]]
Y=df[["Salary"]]
```

Step 4 making linear regression model

```
from sklearn.linear_model import LinearRegression
model=LinearRegression()
```

```
###italicized text step 5 Fitting the model
```

italicized text step 5 Fitting the model

```
model=model.fit(X,Y)
model
```

```
LinearRegression
LinearRegression()
```

step 6 Predicting the Model

```
model.predict([[50]])
```

```
/usr/local/lib/python3.10/dist-packages/sklearn/base.py:439: UserWarning: X does not have valid feature names, but LinearRegression was
  warnings.warn(
array([[498290.31627142]])
```

step 7 Evaluating the model

```
from sklearn.model_selection import train_test_split
X_train, y_train, X_test, y_test = train_test_split(x,y,test_size=0.2, random_state=0)
#fit the model
model.fit(X_train, y_train)
model
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-33-b4748542cb87> in <cell line: 2>()
      1 from sklearn.model_selection import train_test_split
----> 2 X_train, y_train, X_test, y_test = train_test_split(x,y,test_size=0.2,
random_state=0)
      3 #fit the model
      4 model.fit(X_train, y_train)

NameError: name 'x' is not defined
```

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