Dataset:

https://www.kaggle.com/datasets/mrsimple07/restaurants-revenue-prediction
Name: Restaurant revenue prediction
Source: Kaggle
No of Parameters: 8
Parameters: Number_of_Customers, Menu_Price, Marketing_Spend, Cuisine_Type, Average_Customer_Spending, Promotions, Reviews, Monthly_Revenue.

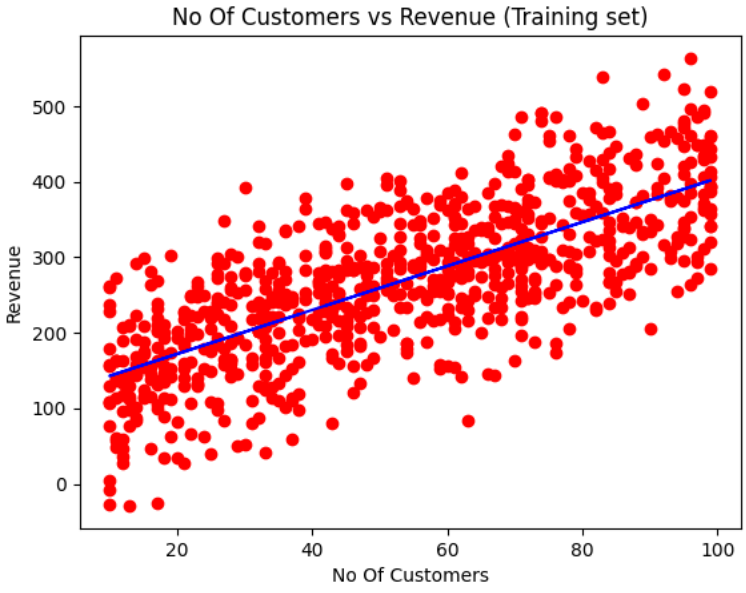
Linear Regression:

Input parameter(x): Number_of_Customers
Output parameter(y): Monthly_Revenue
The training set is 80% and the test set is 20% of the data.

Training set results:

First, the training set is predicted and visualized.
Since the dataset is big(1001 rows), I have given the first 10 results of the predicted and actual values for comparison.

```
No Of Customers:
[[38]
[22]
[55]
[33]
[30]
[67]
[70]
[84]
[45]
[53]
Predicted Revenue:
[224.22361677 177.69174287 273.66373278 209.68240618 200.95767982
308.56263821 317.28736456 358.00275422 244.5813116 267.84724855
Actual Revenue:
[119.74283059 247.06982725 286.278497 162.17932389 255.79977324
353.72643684 297.53247518 390.92559755 217.89458098 400.91141889
```



Test set results:

Finally, the test set is predicted and visualized.

```
No Of Customers:
[[10]
[97]
[57]
[80]
[99]
[93]
[58]
[68]
[85]
[94]
Predicted Revenue:
[142.79283745 395.80990176 279.48021702 346.36978575 401.626386
384.17693329 282.38845914 311.47088032 360.91099634 387.08517541
Actual Revenue:
[139.18023684 429.95359171 288.53222513 256.69208253 423.69220282
389.54099238 273.36650722 328.6551331 346.27189718 353.73252534
```

Link for the notebook:

https://colab.research.google.com/drive/1papUXJDSNd0j9biM5fqNxqHGIWjg_yJc?authuser=3#scrollTo=Ze9vpBTf-Bol