Linear Regression

Implement linear regression using python(sklearn, pandas, NumPy,...)

Perform regression analysis on the attached dataset.

Upload the notebook in your GIT repository and paste the link to the notebook as sunmission

```python
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
from sklearn.linear_model import LinearRegression
from sklearn.metrics import mean_squared_error, r2_score
df = pd.read_csv("Ecom.csv")
df.shape
df
```

```python
x=df.drop(['Avatar','Email','Address', 'Yearly Amount Spent'],axis=1)
x
```

```python
y= df['Yearly Amount Spent']
```

```python
for i in x.columns[0:4]:
  x[i]=(x[i]-x[i].min())/(x[i].max()-x[i].min())
```

```python
x
```

```python
classifier = LinearRegression()
classifier.fit(x,y)
y_pred = classifier.predict(x)
rmse = mean_squared_error(y, y_pred)
r2 = r2_score(y, y_pred)
```

```python
print('Slope:' ,classifier.coef_)
print('Intercept:', classifier.intercept_)
print('Root mean squared error: ', rmse)
print('R2 score: ', r2)
```

```
    Slope: [170.03233857 256.20977739   2.66032229 409.66089564]
    Intercept: 69.17592971266066
    Root mean squared error:  98.47102522148997
    R2 score:  0.9843155370226726
```