**Ecommerce Customers Linear Regression**

This repository contains a simple project that focuses on performing linear regression analysis on the Ecommerce Customers dataset. The dataset comprises customer information and various numerical columns, making it suitable for exploring relationships between customer behaviors and numerical features.

**Dataset**

The dataset includes the following numerical columns:

* Avg. Session Length: Average session duration of in-store style advice sessions.
* Time on App: Average time spent on the company's mobile app in minutes.
* Time on Website: Average time spent on the company's website in minutes.
* Length of Membership: Number of years the customer has been a member.

**Linear Regression**

The core of this project is the linear regression analysis, which involves predicting customer behavior based on the numerical features. The process includes:

1. Splitting the data into features (X) and the target variable (y).
2. Splitting the data into training and testing sets.
3. Initializing a linear regression model using scikit-learn.
4. Fitting the model to the training data.
5. Predicting the target variable for the test data.
6. Evaluating the model's performance using metrics like Mean Squared Error (MSE), Root Mean Squared Error (RMSE), and R-squared.
7. Visualizing the results using matplotlib or other visualization libraries.

## Conclusion

This project provides a basic guide to conducting linear regression analysis on the Ecommerce Customers dataset. By following the steps outlined in the code and documentation, you can gain insights into customer behavior patterns and make predictions based on the provided numerical features.