Linear Regression Algorithm for Ecommerce Customers

Ecommerce company sells clothing online, it is also having in-store style and clothing advice sessions. Customers come to the store, have sessions/meetings with a personal stylist, then they can go home and order either on a mobile app or website for the clothes they want.

The company is trying to decide whether to focus their efforts on their mobile app experience or their website. The yearly amount of money spent by customers is depends on many features and we need to build a model to predict which feature has more influence on the amount of money spent by the customers, so the company can focus on it.

- ✓ Read the dataset which consists of 8 columns and 500 rows.
- ✓ Use only the columns with numerical values.
- ✓ Analyze the data by exploring the types of relationships across the entire data set using “pairplot”.
- ✓ Split the data to training and testing data.
- ✓ Use the linear Regression model to fit the training data.
- ✓ Evaluate the model performance by predicting off the test values.
- ✓ Evaluate the model by calculate the Mean Absolute Error, Mean Squared Error, and the Root Mean Squared Error.
- ✓ Find the coefficient for all the features.
- ✓ Based on the coefficient we can conclude that the yearly amount spent by a customer is significantly increased with the time spent on Apps
- ✓ Based on this model the company should focus on the development of their mobile apps.

!