Ecommerce Customers Sales Predictions

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Prediction for a Company

The company is trying to increase their annual revenues based on:









MOBILE PROJECT

Whether to spend their efforts on a Mobile

WEB PROJECT

Whether to spend their efforts on web page



About Dataset:

Kaggle: The dataset is from Kaggle

Dataset:

https://www.kaggle.com/teberle/e-commerce-linear-reg

ression/data

DataSet Features:

- > Email
- > Address
- > Avator
- > Avg. Session Length
- ➤ Time on App
- > Time on Website
- ➤ Length of Membership
- Yearly Amount Spent (Our Target)

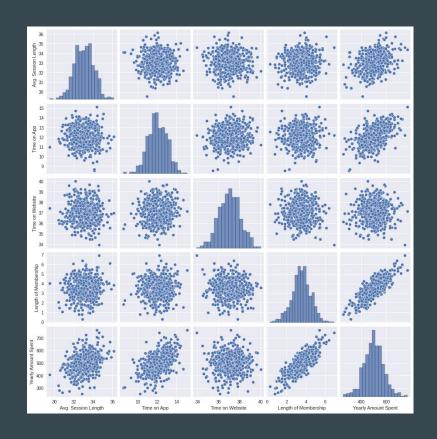
Data Clean Up

Removing the objects columns that is not useful for our predictions.

Email, Address and Avator



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Avg. Session Length	1	-0.028	-0.035	0.06	0.36	0.8
Time on App	-0.028	1	0.082	0.029	0.5	0.6
Time on Website	-0.035	0.082	1	-0.048	-0.0026	0.4
Length of Membership	0.06	0.029	-0.048	1	0.81	0.2
Yearly Amount Spent	0.36	0.5	-0.0026	0.81	1	0.0
	Avg. Session Length	Time on App	Time on Website	Length of Membership	Yearly Amount Spent	

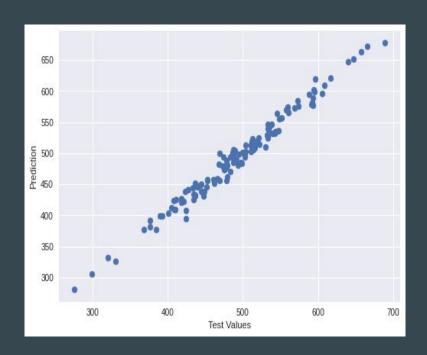


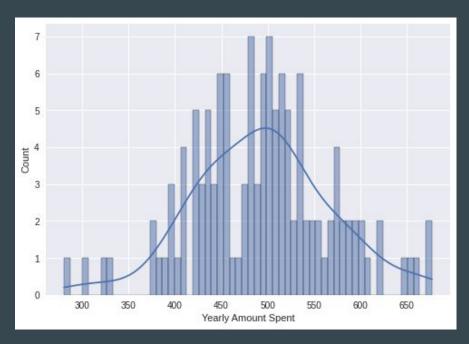
Correlation Heatmap

PairPlot

> Train - 98.52% > Test - 98.06%

- → Mean Absolute Error: 8.4604
- → Mean Squared Error: 105.6451
- → Root Mean Squared Error: 10.2783





Prediction Based on Linear Regression

Conclusion

From this Linear Regression Model to predict the annual revenues whether to focus on the app or the website, I see both are not a great choice to decide. The Length of Membership determines the Annual Revenues.