

Module 6: Introduction to Machine Learning with Python

Case Study – 3

edureka!

edureka!

© Brain4ce Education Solutions Pvt. Ltd.

Case Study – 3

Domain – Retail/Fashion

focus – Optimize sales

Business challenge/requirement

Fyntra is the largest online clothing company in the USA. It sells clothing online, but they also have in-store style and clothing advice sessions. Customers come into the store, have sessions/meetings with a personal stylist, then can go home and order either on a mobile app or website the clothes they want.

The company wants to decide whether to focus the effort on the mobile app experience or its website. As a drastic measure, it is also evaluating to shut down the website.

You as an ML expert in the team will help the company make the right decision

Key issues

Establish a correlation among the parameters supplied in the data

Considerations

NONE

Data volume

Approx 500 records – file FyntraCustomerData.csv (All data is fake so do not worry about privacy)

Additional information

- NA

Business benefits

An increase in profits as the focus on the optimal sales channel will result in a higher top line and the higher bottom line

1. Compute -- Use seaborn to create a jointplot to compare the Time on Website and Yearly Amount Spent columns. Is there a correlation?
2. Compute – Do the same as above but now with Time on App and Yearly Amount Spent. Is this correlation stronger than 1st One?
3. Compute -- Explore types of relationships across the entire data set using pairplot. Based on this plot what looks to be the most correlated feature with the Yearly Amount Spent?
4. Compute – Create a linear model plot of the Length of Membership and Yearly Amount Spent. Does the data fit well in a linear plot?
5. Compute -- Train and Test the data and answer multiple questions -- What is the use of random_state=85?
6. Compute – Predict the data and do a scatter plot. Check if actual and predicted data match.
7. What is the value of Root Mean Squared Error?

edureka!