Online Shoppers Intention Analysis

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Abstract:

The goal of this project is to use classification models to analyze the Customer's Intentions based on the transactions, duration made online in a year , And to create a model that can predict the purchasing intentions of customers.

Design:

This project is one of the T5 Data Science BootCamp requirements. Data obtained from Kaggle website. Source

Data:

The dataset obtained from Kaggle website. This data set consists of 18 features belonging to 12,330 shopping sessions.The 'Revenue' attribute is the target feature.There are no missing values.

Algorithms:

Feature Engineering:

1. Converting categorical attributes to ordered factor variables and are numerically encoded.
2. Normalize numerical variables of the dataset for clustering and scale for classification methods.

Models Used:

1. **Logistic Regression.**
2. **KNeighbors Classifier**
3. **Decision Tree**
4. **Gradient Boosting**
5. **Naive Bayes**
6. **Random Forest**

Hyperparameters used:

GridSearchCV and RandomizedSearchCV

Tools:

1. Numpy and Pandas for data manipulation.
2. Scikit-learn for modeling.
3. Matplotlib and Seaborn for plotting.