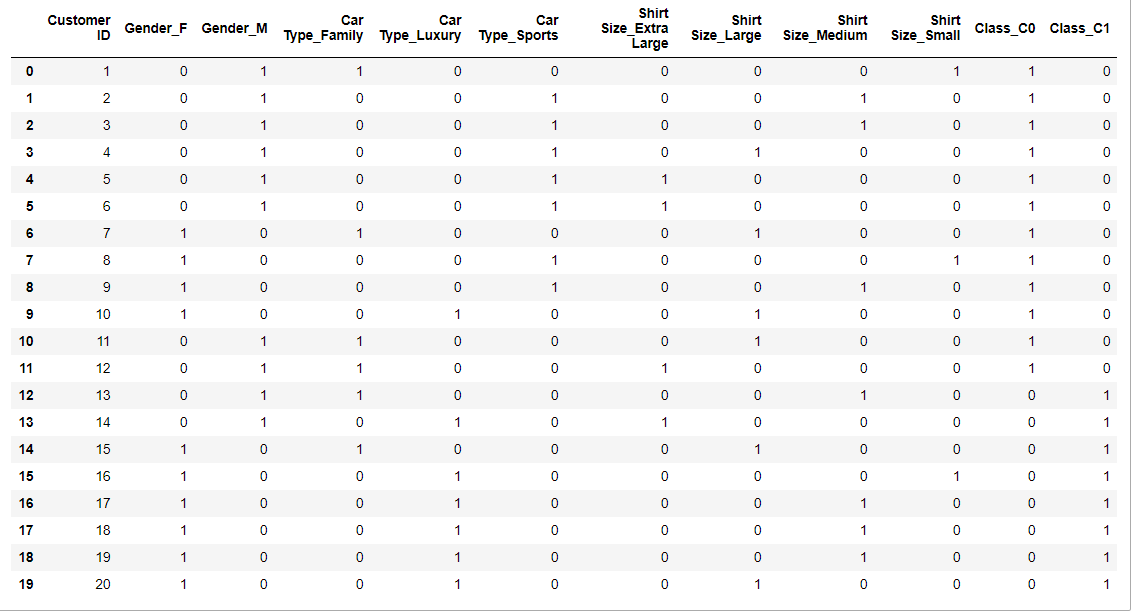
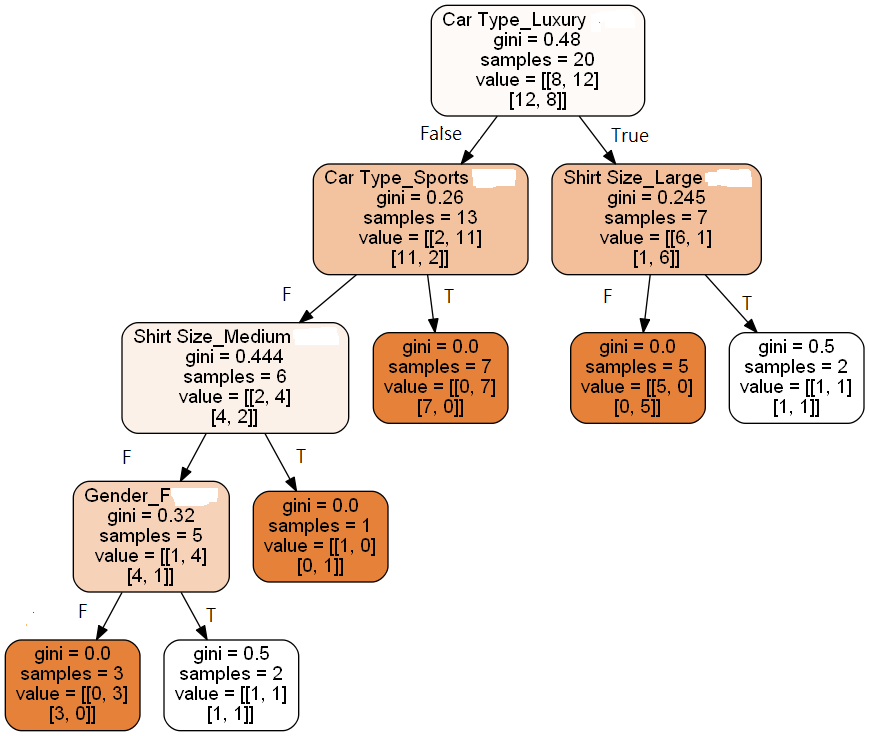
Data Science HW5

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1. I organize data as the following





2.Naive Bayer Classifier

(Gender=F, Car Type=Luxury, Shirt Size=Large)

Compare the Probability of:

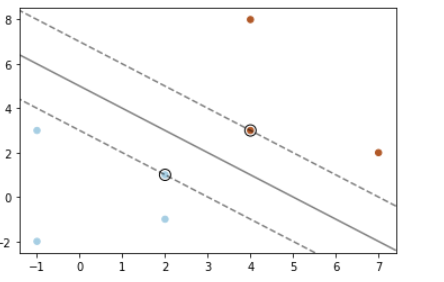
P(C1 | F, Luxury, Large) and P(C0, | F, Luxury, Large)

Assume gender, Car Type, Shirt Size are independent attribute,

3.SVM

Positive examples, y = 1: (4, 3), (7, 2), (4,8)

Negative examples, y = -1: (2, 1), (2, -1), (-1, 3), (-1, -2)



The support vector are (2,1) and (4,3)

y = wx + b

w = , b = -2.5

The hyper plane is shown as figure.