# Lab Exercise 8: Naïve Bayesian Classifier

## Part 1 - Step 6

### Question 3

The result of probability of YES to enrollment is 0.02821869 and NO to enrollment is 0.006857143. Therefore, if Age <= 40, Income = Medium, Jobsatisfaction = yes, and Desire = fair, the customer is predicted to enroll [ie YES].

## Part 1 - Step 9

### Question 1

The P(age=31-40|Enrolls=no)=0.000 means that no one in this age range has not enrolled. This is a problem because now when all probabilities are multiplied, the probability will always be 0.000.

### Question 3

The values are all very similar. However, the key important aspect is that the P(age=31-40|Enrolls=no) is no longer equal to zero, hence we have eliminated the problem discussed above.

## Part 2 - Step 6

### Question 4

All 10 predictions were 10-50K.

### Question 5

The probabilities of the above result were high, but not one with 0.05 of being sure.

## Part 2 - Step 7

### Question 2

The best classified class was 10-50K.

### **Question** 3

It predicted 70% accurately.

### Question 4

There is a random ordering in the SQL, so each time this is run, the answers may be different because the data retrieved will be different.