BUS 210, Quiz #2, Fall 2018

Name _____KEY_____

Section _____

Instructions: This quiz is to be completed entirely in class. You may not use cell phones, and you may only access internet resources you are specifically directed to use. Go to Blackboard and open the data file posted under Quiz #2. Use it to answer the following questions. Place your answers to the bolded questions directly on this page.

1. Create a Pivot Table of Pay Type vs. Gender that displays counts. **What is the number of people who are heavy drinkers?** (*female*) **What is the number of people who are heavy smokers?** (*Salaried*) Create a column graph of the data. **What do you notice?**

   378 female.   481 salaried

   the # of hourly workers by gender is about the same but there are many more men on salary

2. Using the same data set as #1, create a pivot table of Pay Type vs. Gender that displays average credit card debit. **What is the average credit card debt of Salaried Men? Do you notice any relationships to the data?**

   $ 1539.63

   the credit card debt of Salaried men is the highest

3. Referring to your table from #1, suppose that someone from this data set is selected at random. Answer the following questions:
   a. **What is the probability that the person is a man?**

   458/856 = 0.535

   b. **What is the probability that the person is salaried?**

   481/856 = 0.562

   c. **What is the probability that the person is a salaried man given that they are salaried?**

   269/481 = 0.559

   d. **What is the probability that the person is a salaried man?**

   269/856 = 0.314

   e. **What is the probability that the person is a salaried man or a woman paid hourly?**

   (269 + 186) / 856 = 0.532

Submit your completed Excel file to Blackboard, and submit your paper quiz to your instructor in class.

4. Using the data for #4, create a scatterplot that examines the relationship between GPA (x) and Salary (y). **What is the regression line, and R^2 value? Does the trend appear to be linear or non-linear? Negative or positive correlation? If the trend continued, what would you expect the ~~acceptance rate~~ to be if the school ~~enrolled 2000~~ people in their program? Do there appear to be any outliers?**

Salary *GPA was 3.9*

$$Y = 47,384X - 51,265$$

$$R^2 = 0.1047$$

linear, positive   (there is a strong outlier)
                              influential

$ 133,532.60

Yes   There is a 3.7 GPA w/
         a salary under $70,000

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