



BUSI 4063 - Business Intelligence and Analytics
Final Exam - Fall 2022

Important Information

1. After you are done with the midterm, upload the solution on moodle in the folder that you will find in unit 11 as Rmarkdown file or Rscript.
2. Time limit for this test is 120 minutes.
3. This term test contains 2 pages and 3 questions. Total of points is 100.

1. (40 points) Use the following data set:

final exam data

- (1) (20 points) Divide the data set to Train, Test Data Sets. Your training and test data sets consists of columns "FamilyIncome", "FamilySize".
- (2) (20 points) Use Naive Bayes Classifier for predicting whether the customer will buy electronics.

2. (45 points) Use the following data set:

gapminder

- (1) (10 points) Consider the "alconsumption" as a dependent variable and "incomeperperson" as independent variable. Draw the regression line and find the regression coefficients.
 - (2) (10 points) Fit polynomial regression equation with "alconsumption" as a dependent variable and "incomeperperson" as independent variable.
 - (3) (10 points) Fit multiple regression equation with "lifeexpectancy" as dependent variable and "alconsumption" and "incomeperperson" as independent variable.
 - (4) (15 points) Draw histograms for "incomeperperson". One histogram with counts and one histogram with density.
3. (15 points) How many numbers are there between 10 and 150 that are divisible by 6?