\*\*\*\*Don’t forget to append your first initial + last name to the end of the file when submitting!

11. In the Boston Housing data set, what is the relationship between crime and housing prices? Please support your claims with exploratory analysis conducted in R. Does this relationship make sense? Justify your answer. IE: What are some reasons this relationship makes sense or does not make sense?

The relationship is inversely proportional.That means while increasing crime parameter , the rate goes down.The correlation coefficient is -0.39 as depicted in correlation matrix.

It makes sense.Since there would be less purchaser for the property which is in those kind of regions where crime rate is higher in comparison of those area where crimes rate are very low.

12. Based on your analysis of the Boston Housing data set, please provide an interpretation for the top 3 strongest absolute correlations. Offer some hypothesis as to why these correlations may be present.

Tax ~ rad → 0.91 correlation coefficient

nox~ dis → - 0.77

indus ~ nox → 0.76

13. Based on your analysis of the 90th%, 92.5th%, 95th%, 97.5th% and 99th% confidence intervals for the mean of passing yards, you should have noticed that the bounds of the confidence intervals increase as the percentile (90th%, 92.th%, etc) increases. In your own words, explain why this relationship exists.

14. Based on your anova of the food calorie counts, please state the null and alternative hypothesis and interpret the results of your anova.

The mean of calorie of food1,food2,food3,food4 are equal → null hypothesis (H0)

The mean of calorie of food1,food2,food3,food4 are not equal → alternative hypothesis (Ha)

The result is “Reject H0”