Symphony Hopkins

DSCI 502: R Programming

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Project 5

1. Read the dataset in loan. Call the loaded data, loan. Make sure that you have the directory set to the correct location for the data.
   1. See R script.
2. Please plot the histogram and density of the loan\_amnt using basic graphics.
   1. Histogram
      1. Chart, histogram

         Description automatically generated
   2. Density
      1. Chart, histogram

         Description automatically generated
   3. Histogram and Density Plot on Same Axis
      1. Chart, histogram

         Description automatically generated
3. Please plot the histogram and density of the loan\_amnt and add the vertical line denoting the mean using ggplot2.
   1. Chart, histogram

      Description automatically generated
4. Please scatter plot of loan\_amnt (y-axis) against annual\_inc (x-axis) and add the trend line using basic graphics.
   1. Chart, scatter chart

      Description automatically generated
5. Please scatter plot of loan\_amnt (y-axis) against annual\_inc (x-axis) and add the trend line using ggplot2.
   1. Chart, scatter chart

      Description automatically generated
6. Please plot the barplot of term and grade on the same barplot using basic graphics.
   1. Chart, bar chart, histogram

      Description automatically generated
7. Please plot the barplot of term and grade on the same barplot using ggplot2.
   1. Chart, bar chart

      Description automatically generated
8. Please boxplot loan\_amnt (y-axis) against term (x-axis) and save the graph in a file, loanterm.jpg, using basic graphics.
   1. Chart, box and whisker chart

      Description automatically generated
9. Please boxplot loan\_amnt (y-axis) against term (x-axis) and save the graph in a file, loanterm.jpg, using ggplot2. Are there any differences in loan amount with respect to term?
   1. Chart, box and whisker chart

      Description automatically generated
   2. Compared to the basic graphics boxplots, there really aren’t any differences in the information presented. The only difference is the aesthetics of the graphs.