

DAT 640 Practical R Activity Three Guidelines and Rubric: Selecting Visualizations

For this assignment, you will have three deliverables:

1. A summary of your data
2. Two visualizations of your data
3. Justification for the type of visualizations you chose

Part I – Data Summary:

Summarize your data through basic or detailed numeric summaries and through a characterization done by looking at any or all of the following:

- Distribution
- Skewness
- Kurtosis
- Missing values in data sets

As part of your summary, describe how the statistics generated may be valuable in determining potential areas of investigation.

Part II – Visualizations:

Choose two different visualizations using any of the methods learned in Section 5.1. You must provide two visualizations (by screenshots) of the data set you chose in Module Two.

Part III – Justification of Visualizations:

From *Data Mining With R and Rattle: The Art of Excavating Data for Knowledge* (p. 99):

Through exploring our data, we can discover what the data looks like, its boundaries (the minimum and maximum values), its numeric characteristics (the average value), and how it is distributed (how spread out the data is). The data begins to tell us a story, and we need to build and understand that story for ourselves. By capturing that story, we can communicate it back to our clients.

Justify the rationale for selecting one or more of these visualizations to tell a “story.” What aspects of the visualization are uniquely suited to the use of this method?

Rubric

Guidelines for Submission: Your submission should follow these formatting guidelines: double spacing, 12-point Times New Roman font, one-inch margins, and citations, if any, in APA format when appropriate.

Critical Elements	Exemplary (100%)	Proficient (90%)	Needs Improvement (70%)	Not Evident (0%)	Value
Demonstration of R Command Execution	Includes demonstration of all R command executions in the form of screenshots or command output listings	Includes demonstration of most of R command executions in the form of screenshots or command output listings	Includes limited demonstration of R command executions in the form of screenshots or command output listings	Does not include demonstration of R command executions in the form of screenshots or command output listings	15
Required Elements	Meets “Proficient” criteria and provides additional analyses or relevant supporting scholarly material	Submission includes all the required elements of the analysis	Submission includes more than 50% of the required elements of the analysis	Submission includes less than 50% of the required elements of the analysis	15
Model Computation	Meets “Proficient” criteria and includes assessment of alternative settings/tuning procedures	Demonstrates accurate utilization of the R/Rattle packages per the model specifications	Demonstrates utilization of the R/Rattle packages with inaccuracies or does not adhere to the model specifications	Does not demonstrate utilization of the R/Rattle packages	30
Model Analysis	Meets “Proficient” criteria and draws insightful conclusions that are thoroughly defended with evidence and examples	Provides in-depth analysis that demonstrates complete understanding of concepts and draws informed conclusions that are justified with evidence	Provides an analysis that demonstrates a general understanding of concepts or draws logical conclusions, but does not defend with evidence	Does not provide in-depth analysis	30
Articulation of Response	Submission is free of errors related to citations, grammar, spelling, syntax, and organization and is presented in a professional and easy-to-read format	Submission has no major errors related to citations, grammar, spelling, syntax, or organization	Submission has major errors related to citations, grammar, spelling, syntax, or organization that negatively impact readability and articulation of main ideas	Submission has critical errors related to citations, grammar, spelling, syntax, or organization that prevent understanding of ideas	10
Earned Total					100%