Southern New Hampshire University

DAT 690 Programming Revision Guidelines and Rubric

Overview: In this assignment, you will refine your data analytic model through revising your code. This will ensure integrity, quality, and reproducibility of the results of your data analytic plan model. Points of revision include data cleaning, data exploration, modeling code, and modularizing code.

Prompt: For this assignment, make clear and frequent comments throughout to explain the process. Include screenshots of your code to demonstrate where the output originated. Be sure to provide titles or footnotes to any sections of the code that produce output. When you are finished, submit this documentation to your instructor for feedback.

Also, for this assignment, modularize and generalize your code into separate but interacting sections. Keep three primary goals in mind:

- Ensure that the code is robust ("bullet-proof") so that future users are less prone to making unseen or hard-to-trace errors
- Ensure that the code is flexible enough to deal with potential new sources of data, updated versions of the existing data, and/or scaling for significant increases in data.
- Make the code modular so that all pieces do not have to be run in order to produce a specific piece of output. For instance, a change to the covariates in the model should necessitate only that the model portion of the code is run, not the initial data cleaning and exploration code.

If you have any questions after reading through the feedback on your programming revision assignment, reach out to your instructor. Remember that your instructor is a resource you should utilize throughout the course.

Make sure to include the following critical elements in your programming.

Critical Elements
Code only has essential components of the analytic process
Comments in code explain each step of analytic process with screenshots of code included
Code includes titles and footnotes wherever appropriate
Code is able to accept new sources and increase in data
Code can accommodate changes in parameters
Code is written to be reproducible
Components of the code are modular and can run independently

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Rubric

Guidelines for Submission: Your code must be submitted as a .txt document to the instructor for feedback.

Critical Elements	Proficient (100%)	Not Proficient (0%)	Value
Components	Code only has essential components of the analytic process	Code includes extraneous components	15
Comments	Comments in code explain each step of the analytic process and include screenshots	There are no comments or screenshots in the code to explain each step of the analytic process or some comments or screenshots are missing	15
Titles and Footnotes	Code includes titles and footnotes wherever appropriate	Code lacks titles and footnotes in places in need of clarification	10
New/Increase Data Sources	Code is able to accept new sources and increase in data	Code cannot accept new sources or increases in data	15
Changes in Parameters	Code can accommodate changes in parameters	Code cannot accommodate changes in parameters	15
Reproducibility	Code is written to be reproducible	Code is not written to be reproducible	15
Modularity	Components of the code are modular and can run independently	Components of the code are not modular and cannot run independently	15
		Earned Total	**100%**