SOC 4650/5650: Lab-07

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Directions

Please complete all steps below. Your final deliverables should be uploaded to your GitHub assignment repository by 4:20pm on Tuesday, March 7th, 2017. This lab uses data from the `MOHydro` and `MetroWx` directories in `CourseData`.

Creating a Geodatabase

1. In ArcCatalog, create a new geodatabase in the `MetroWx` directory under `SOC5650/Data/CourseData`.
2. Import the five shapefiles from the `MetroWx` directory into your new geodatabase.
3. Create a shapefile from the new `Tornados` feature class in your new geodatabase. Save it to `MetroWx` as `METRO_WX_TornadosCopy`.
4. Update your meta dictionary file to reflect the new geodatabase contents and new shapefile.
5. Upload a screen shot of your new geodatabase opened in ArcCatalog along with a copy of your updated meta dictionary to your assignments repository.

More Editing of the Dam Data

7. Using Atom, construct a well-formatted do-file using the `headFull` snippet. Be sure to edit the appropriate lines in the template that detail the name and purpose of the file.
8. Your do-file should *successfully* accomplish the following tasks. It should include narrative text that explain what the command accomplished.

    (a) Import the raw data into Stata.

(b) Create a copy of the `damht` variable and recode it so that dams that are ten feet or under receive a value of "1", damns from eleven to nineteen feet receive a value of "2", damns from twenty to twenty-nine feet receive a value of "3", and damns that are thirty feet or larger receive a value of "4".

(c) Create a string variable named `taboCreek` that is filled with "false" values.

(d) Replace the values in `taboCreek` with "true" if the words `TABO CREEK` appear in the `offname` variable.

(e) Create an empty numeric variable named `shortDam`.

(f) Replace the values in `shortDam` with "0" if the dam height is less than twenty feet.

(g) Replace the values in `shortDam` with "1" if the dam height is greater than twenty feet but less than or equal to the maximum value.[1]

[1] *Hint:* Use the descriptive statistics command from earlier in the semester to identify the maximum value

(h) Create a strong variable named **busch** that is filled with empty values.

(i) Replace the values in `busch` with "no" values if the `county` variable is not equal to `BOONE`.

(j) Replace the values in `busch` with "yes" values it the county is any other value other than `BOONE`.

9. Execute the do-file and debug any errors until the code executes without issue.

Tidy Markdown

10. In Atom, install the `tidy-markdown` and `linter-markdown` packages. Use File ▷ Preferences ▷ Install to accomplish this.

11. Go to File ▷ Preferences ▷ Packages and open the Settings for the `tidy-markdown` package. Un-check the Run On Save option.

12. Open your markdown formatted output file and then go to View ▷ Toggle Command Palette. Search for the `Tidy Markdown: Run` command and execute it.

13. Highlight the **complete** contents of each code block and use the combination of the Shift and Tab keys to de-indent your code blocks.

14. Use the `linter-markdown` indicators in the bottom toolbar to identify any issues with your markdown syntax and correct them as needed.

15. Spell check your document (you may have to go to Packages ▷ Spell Check ▷ Toggle).

16. Save your changes.

17. Upload your do-file, log-file, and markdown formatted output file to your assignments repository.