Geographic Information Systems 2023-2024

Assignment 01 - report template

General comments about your assignment

- Ensure that your GIS project opens correctly in a different computer that the one were it was created. It should have a good folder structure with data inside the main project folder. After compressing the main folder with zip, send it to your colleague. He should be able to open it without issues.
- Use meaningful names for files and attributes. Names like *Layer1, Layer2. ...*, are not meaningful. Do not use them at layer creation, even if you think you can rename it later, as this will be prune to errors and inconsistencies in the project.
- Use appropriate symbology for the representation of the spatial information;
- In creating diagrams of operations, be exact in the formal aspects of the representation:
    - be consistent in the symbology of representations of datasets or operations
    - include what is needed, but not more that it is needed
    - be explicit, do not leave items or other things for interpretation

General comments about how to create a good report

- Explain your general strategy and decisions to find a solution for the problem. A good idea is to list how did you breakdown your problem in steps;
- Provide a brief analysis of the results of the respective problem;
- If several solutions are possible (tools, analysis paths), explain your choices;
- Do not repeat information that is available elsewhere, either on the data, the GIS project or diagrams of operations. The only exception is if that information was determinant for your choices;
- If specific questions are asked in the respective assignment problem, provide the response in the report
- if external data sources were accessed or used, always cite them in correct format. Very often, these sources have recommended citation indications;
- no need to cite the provided data with the assignment.

Problem 01

- Explain your general approach to the solution;
- If alternative paths to the solution exist, explain your choices;
- Indicate how did you check that your results are correct. A good approach is to validate, after each step, if results make sense;
- Provide the results for the areas of risk. Alternatively, this can be provided in the GIS project as a table, in which case the report should indicate where to find that information.

Problem 02

- Explain your general approach to the solution;
- Explain how did you ensure the quality of the editing results, and checked for geometric errors;
- Explain how did you ensure the quality of associated information in the attribute table;
- If you used a specific approach to identify parcels, in order to be consistent, explain the rationale;

Problem 03

- Explain your general approach to the solution;
- If you consider necessary, explain your decision to use a spatial operation or a specific tool
- Indicate how did you check that your results are correct. A good approach is to validate, after each step, if results make sense;
- Provide the results and a brief analysis.

Problem 04

- Explain your general approach to the solution;
- If you consider necessary, explain your decision to use a spatial operation or a specific tool;
- Indicate how did you check that your results are correct. A good approach is to validate, after each step, if results make sense.
- Provide the results and a brief analysis.

Problem 05

As this problem is not previously identified, you need to clearly identify:

- The question and how the spatial analysis can be used to provide the solution.
- Your general approach to the solution;
- The data sources;
- How did you verified for the correctness of results, including the structure of data, including the database normalization;