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PS Spatial Analysis
Assignment #1 | Spatial Analysis

Paris-Lodron-Universität Salzburg
Department of Geoinformatics

Objective

The objective is to use spatial analysis techniques to analyze Salzburg and the touristic attractions offered. Therefore, we utilize network analysis methods, that we familiarized ourselves with during class.

When performing spatial analyses please take care to have an eye on the environment settings – especially the processing extent!

Assignment:

The tasks listed below are listed in a way that you can easily find out what to deliver in order to receive a certain grade. The tasks are building on each other – meaning for a grade 2 (“Gut”) you have to deliver the tasks for grade 4, grade 3 and grade 2.

Please prepare a new map that contains the following datasets:

- OSM Tourist Attractions for Europe (from Living Atlas)
- Kindergarten (already used in class)
- Your home address in Salzburg / or any address of your choice (as new Sketch)
- Background map of your choice

- **Task 1 > grade 4:**
  Explore how many tourist attractions are in 5, 10, 15, 20 minutes walking distance around your Salzburg address. Please provide a map of the result and provide a detailed analysis (statistics) of your results.

- **Task 2 > grade 3:**
  What are the 5 closest museums with respect to
  - Driving
  - Walking

  around your home in Salzburg (Hint: for museums, filter the attribute “tourism” of the OSM Tourist Attractions for Europe layer)
  Please provide a map and a comparison of the results concerning walking and driving.

- **Task 3 > grade 2:**
  Find the closes 20 hotels (walking distance) around Getreidegasse. Please create a new Sketch that represents Getreidegasse, and use network analysis to find the closest hotels. Hint: for hotels, filter the attribute “tourism” of the OSM Tourist Attractions for Europe layer. Please provide a map and an analysis of the results (avg. distances).

- **Task 4 > grade 1:**
  Find museums that are in 10 minutes walking distance around Kindergarten locations in Salzburg. Please select one Kindergarten of your choice and calculate the routes that connect all the selected museums. Calculate the routes with 1, 2, and 3 vehicles respectively, with no further capacity or time constraints. Please provide a map for your results and explain the results accordingly.

What and how to hand in?

In order to hand in your results please become member of the group “Spatial_Analysis_Assignments_2023_24” (https://zgis.maps.arcgis.com/home/group.html?id=6b097b94a31a4cd3ad163fb6fbe1df2d#overview). Please share your maps in that group!

Please hand in your written report using Blackboard System until November 14, 2023, 11:59pm!

Johannes Scholz, October 24, 2023