Project assignment for ENA-LS (Winter semester 2025/2026)

Design a Location-based service for the citizens of a city. The city must have a population of at least 200 000. The goal of the Location-based service will be to solve one or more problems of the citizens. In order to find the problem, search for it at pages of the city and use the city resources (such as #brno2050).

The proposed LBS will be a service for the citizens or the municipality with a direct impact on their lives. It will consist of two parts. The first part is aimed at working with GIS data that will be part of LBS. The second part is the design of the LBS in Figma. The design can be either web or mobile application. These two parts can be different. So the design can (and should be) different from the final map applications created.

Data

The proposed location-based service will:

- Use at least 5 datasets from the official city data portal. You must choose a city that has a data portal.
- Use at least 3 other datasets for different sources. Each dataset must have at least 20 features.
- Use at least three data sets created by team members. Each dataset must have at least 20 features. These datasets are primary data sources, not derived from the first two datasets.

Application design

In this semester, you have learned how to design web and mobile applications. Your goal for this semester is to use this knowledge to design web or mobile application for the citizens or municipality of your chosen city.
The requirements for the application:

- At least 6 screens.
- Will use the data used in the Data part of this assigment.
- Must be available for the citizens (you are not designing an application for the city officials).

The final project

The final project will consist of:

- ArcGIS Online map/maps representing the final analysis and the output of the project.
- The web application showing the AcrGIS Online Map (build using Experience Builder).
- Anything you want to add (other maps, Insights, Story Map,…)
- Data sets in the SHP or GeoJSON format.
- Figma design of the web or mobile application - public link to the design.
- A PowerPoint presentation describing the proposed LBS and the results.

Schedule

- **2025/10/12 20:00** - the project proposition with the names of the team members (each team has 3 members). At least 10 lines of text describing the problem you want to solve, the idea behind the application, the data used and how it will affect the citizens.
- **Week from 2025/10/27** - during lecture and seminars - mandatory consultation of the project. What has been done so far.
- **2025/11/02 20:00** - the report containing the progress on the project (mainly the description and reasoning for the data used in the project).
- **Week from 2025/12/1** - during lecture and seminars - mandatory consultation of the project. What has been done so far.
- **2025/12/7 20:00** - the report containing the progress on project from last report
- The last week of the semester - the final presentations of the projects.

Each report will contain a list of team members with a percentage of work done on the project so far.

Data sources (just a small list)

- https://data.brno.cz/
- https://www.openstreetmap.org/#map=7/49.817/15.478
- https://download.geofabrik.de/
- https://www.czso.cz/
- https://ec.europa.eu/eurostat
- https://www.cuzk.cz/
- https://data.gov.cz/english/
- https://data.europa.eu/
- https://data.worldbank.org/
- https://glovis.usgs.gov/ (online version
- https://livingatlas2.arcgis.com/landsatexplorer/)