

# 1 Project Proposal - Geomapping



Geomapping involves using geographic data to create maps that illustrate how features or phenomena are related spatially. There are a number of reasons why this skill is important. One advantage of geomapping is that it can help people better understand and analyze spatial patterns. For example, geomapping can be used to show how the distribution of certain resources, such as water or vegetation, varies across a region. This can help people make more informed decisions about how to manage those resources.

As part of the exercise, students will learn how to create simple maps by working with data sets. For example, if you want to show how the distribution of universities in Lower Saxony looks like, this can be shown with conventional methods of data analysis, but it hides certain data that only become visible through the spatial representation. In the exercise, the universities of Lower Saxony are plotted and the students are instructed to write a short text about how they interpret data or what they see. Thereby it becomes obvious that most of the universities are located in Hannover or that there are preferred locations for universities that are concentrated in the eastern part of Lower Saxony. All in all, the ability of geomapping should help to look at data(-sets) differently.

## What will You Learn from This Python Project?

- Create maps in Python

- Visualization of coordinates with different kinds of marker (dot, circle, rectangle)
- Customization of markers (color, symbol)
- Add popup information to markers