Have you ever wondered how map overlays for Google Maps are created? In the project for this course you will build your own interactive visualization of a large dataset tagged by geospatial information. Both powerful and challenging, data visualization is one of the hot topics of modern computer science - as well as something that influences our world every day!

To create this project, you'll be working with a package called Unfolding Maps, which is a library for interactive maps and geovisualizations. It was developed by Till Nagel and the team at the University of Applied Sciences Potsdam along with other contributors and we are grateful that they developed such a cool package that we (and you) can build on for this course.

The project is separated into several parts, and you will be able to achieve project milestones as you work through the modules in the course. Throughout the project, we've suggested extensions and ideas for adding extra features to your project. Have fun with it and make it your own. At the end of the course, you'll have the opportunity to showcase your creation and see what your peers have built too.

Learning outcomes:

- Build an interactive graphical program in Java
- Design classes to make use of object-oriented programming paradigms
- Explain inheritance and polymorphism and how each concept is applied in the creation of a Java GUI
- Explain how event handling works in Java, and write event handlers to create an interactive program
- Write and apply searching and sorting algorithms to manage large data sets
- Find and fix errors (bugs) in code
- Develop and use test cases to ensure correctness of a program

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