

A14: Leaflet Interactive Web Map

The **leaflet** R package allows you to produce maps using the **Leaflet JavaScript API** within R as opposed to using the API directly. In this exercise, you will produce your own interactive web map using Leaflet and R. You will need to deliver a compressed folder that contains your HTML webpage with any required assets and the R code used to generate it, either as a plain text file, R script file, R Markdown, or Quarto file.

Create an interactive web map using Leaflet and R. You can create a map relating to any topic of your choosing. However, it must meet the following criteria. Note that I am not providing any data for this exercise.

- The web map should include at least three spatial layers (not counting the base maps). I recommend using vector data as opposed to raster data. (4 Points)
- All layers must be well symbolized. (4 Points)
- Pop-ups should be well configured. You can choose to not include pop-ups for up to two layers. However, the pop-ups for these layers should be disabled. (4 Points)
- An appropriate initial zoom and extent should be defined. (4 Points)
- The user should be able to choose between at least two base maps. (4 Points)
- The user should be able to turn all the operational layers on and off. (4 Points)
- A legend for at least one layer should be included. (4 Points)
- Up to 12 points will be rewarded based on the overall design of the interactive web map including: use of color, use of symbology, legend design, configuration of pop-ups, use of layer lists, defined initial zoom and extent, positioning, and overall neatness of the webpage, map, and code. (12 Points)