Getting accostumed with geospatial data manipulations – suggested exercise sheet

- Go through this tutorial:
  - https://www.youtube.com/watch?v=E65mfjqIwZI
- Repeat it for the German States
- Then:
  - Locate Frankfurt/Main in Google Earth Engine and download a representative image of it
  - Calculate spectral indixes in that image EVI, NEVI, MNDWI, RVI, NDVI, ARVI
  - Download an average image (e.g. from 2023) for the months January and February and calculate the indices again – repeat for the months May and June
  - Cluster the pixels of an image
  - Cluster the pixels of an image derived from spectral indices – do this inside and outside of GEE
  - Bonus: Use GEE to calculate the Water Balance using Precipitation and Evapotranspiration for 2023
  - Bonus: segment streets using publically available street maps
  - Bonus: segment green spaces using spectral indices
  - Bonus: determine ground temperature (hint: you may need to combine images from different satellite missions)
  - Bonus: try to determine the topography of Frankfurt from shadows