In-class lab 1

Geospatial analysis in R KDI School Fall 2024

You can find all of the data in the assignments/in-class1/data folder. The datasets are:

- seoulgrid.shp: a grid of 100m x 100m cells covering Seoul
- seoulgu.shp: the administrative districts (gu/) of Seoul
- seoulrail.shp: the rail stations in Seoul
- seoulwater.shp: the water bodies in Seoul
- seoulpoints.csv: points of interest in Seoul

By the end of class, you need to turn in a raw markdown file AND the pdf output. Please make sure ALL STUDENTS' names are on the assignment. Here are your tasks for today:

- Let's start easy. The grid shapefile has a variable in it: estimated population in the grid cell (from WorldPop). Load the grid shapefile and plot the population distribution in Seoul. Please make the map look nice.
 - You'll notice there are a lot of grid cells with missing values. Please write what you think might be going on there.
- Next, filter out any grid cells that are majority water. Plot the population distribution in Seoul again.
 - Please write what you think the missing values are again.
- I forgot to put the Gu identifier into the grid cells. Please add that using the seoulgu.shp file.