## Homework 4

## 2022-10-27

Load the libraries here.

Write your solutions and comments in this markdown file and submit it with its pdf version to Moodle.

General notes: • Make sure to put titles on the plots and labels on axes. • Descriptions for the graphs: explain why the plot is useful and what actions can be taken based on it. This is one of the key requirements, if not done, will lose points.

## Part 1

For this Homework, we will analyze the Moodle logs data for the Data Visualization course. Create at least 3 graphs that can be of value for the course professor. You can use both R and Python. You are free to customize and experiment with visualizations, the key is to provide insights and recommendations for decision-making. (50 points)

## Part 2

For the second part, we will analyze survey which is conducted in 2019. You can see the question in the Excel file's sencond sheet.

- Q1.1: Create a bar chart using NKRESF (How likely is it to find a solution to the Nagorno Karabakh conflict within the next 5 years through force?) column. (5 point)
- Q 1.2 Change the bar chart scales to proportions. (5 point)
- Q 1.3 Create the same bar chart using geom\_col. What is the difference between geom\_bar and geom\_col? (5 point)
- Q 2.1 Create stacked bar chart of COMPABL (computer skills) and add labels (counts). How many people have computer advanced skills? (5 point)
- Q 2.2 Change the bar chart to pie chart. (5 point)
- Q 3.1. Create a bar chart of KNOWENG (english knowledge) and fill it with STRATUM (place of residence). (5 point)
- Q 3.2. Get side-by-side bar chart of the previous plot. (5 point)
- Q 3.3 Change it to stacked bar chart with the length of 1. (5 point)
- Q 4. Create bar chart of AMULSAR (Do you approve the Amulsar mining project?) and fill it with RESPSEX. (10 point)