

## Assignment 4 Data visualization

Due date: June 26, 11:59pm

### Purpose:

Visualizing data can greatly enhance your understanding of the data. In this assignment, you will practice the basic visualization functions for creating bar charts, histograms, scatter plots, and boxplots. You will interpret the data based on the charts.

**Tasks:** Please write an R script that performs the following operations in the order listed. At the beginning of each task, write a comment marking the task number.

Name the file as: lab4-<your last name>.R

1. Import the 'happiness.csv' dataset
2. Browse and understand the data in each column
3. Use the plot() to create a bar chart showing the number of countries in each region, explain what you learn from the chart (note: you need to change the 'region' variable into a factor before drawing the charts)
4. Use the plot() to create a scatter plot with the happiness score as the y axis value and the row ID as the x axis value, explain what you learn from the chart
5. Use the plot() to create a boxplot showing the difference in happiness score among regions
6. Use the ggboxplot() to create a boxplot showing the difference in happiness score among regions. Explain what you learn from the chart
7. Create a histogram for happiness scores. Explain what you learn from the chart
8. Create a histogram for health scores. Explain what you learn from the chart
9. Create a scatter plot illustrating the relationship between happiness score and health score. Explain what you learn from the chart

### Submission:

Submit your assignment by uploading the actual R script itself to Blackboard via the Lab4 submission link.