**PRACTICAL 7**

Create an RMarkdown document to complete the following:

1. Getting to know the data
2. Import the data (<http://becomingvisual.com/rfundamentals/summer_winter_olympics.csv>)
3. View the data
4. Look at column names
5. Look at dimension of data (rows and columns)

| Solution: |
| --- |

1. Dealing with Data
2. Look at the column names and change names to more meaningful names.
3. The data represent, in order:
   1. country
   2. number of summer games played, gold, silver, bronze, total,
   3. number of winter games played, gold, silver, bronze and total, total
   4. total (Winter + Summer) games, gold, silver, bronze, total

| Solution: |
| --- |

1. Summary
2. Use table() to find frequency of total summer games played
3. Explore the data with other variables

| Solution: |
| --- |

1. Graphs
2. Do histogram of summer games (total)
3. Do histogram of winter games (total)
4. Put above two histograms on one page
5. Do two histograms on one page: total summer, total winter medals won
6. Is there a correlation between number of medals given out in winter and summer? (do plot)
7. How about number of games each country competes in. Is there correlation between winter and summer?
8. Look at distribution of each of the types of medals, by season (6 histograms on one page)
9. Redo g with different number of bins (10 instead of 20)
10. Explore data on your own

| Solution: |
| --- |

1. Merge the columns for the year 2016 for

GDP (<http://becomingvisual.com/rfundamentals/gdp.csv>),

Life Expectancy (<http://becomingvisual.com/rfundamentals/life_expectancy.csv>), and Employment (<http://becomingvisual.com/rfundamentals/employment.csv>) into a new data frame and clean-up the new table.

1. Rename the appropriate columns to “country”, “gdp”, “life\_expectancy”, and “employment”.
2. Convert the employment number to percentages by dividing by 100
3. Then round life expectancy to zero decimals and employment to two decimals
4. Create a frequency table for each variable
5. Draw histograms for each variable

| Solution: |
| --- |

\*\*\*\*\*\*\*\*