

## M1-PROJECT PART 2

### DUE End of M2 WEEK2

**You have 2 weeks to complete this project.**

**Rev Fall-2020**

#### Executive Report

*First Introduction to R-Scripting and dataset analysis:*

1. Submit your Executive Summary with file name LastName-M1-Project1.

2. Your report is based on analyzing 12 Questions (in RED) and the Student.csv. You will create and execute an R script in order to gather the information required to complete your report. A script template of comments will be provided to guide you in your development of the R-code you will need to create in order to write the Executive Summary specified below.

3. Insert the following data in your R files (use the corresponding codes):

Sales : 8, 11, 15, 20, 21, 11, 18, 10, 6, 22

Temp : 69, 80, 77, 84, 80, 77, 87, 70, 65, 90

4. Your Executive Summary should consist of:

**Title Page:** name, date, title

**R-script/console screenshots answers for the following 10 questions:**

- a. **Q-1. Pg 9:** PLOT sales ~ temp to produce a scatter plot
- b. **Q-2. Pg 9:** FIND the mean temperature
- c. **Q-3. Google:** DELETE the 3<sup>rd</sup> element (#15 ) from the sales vector
- d. **Q-4. Google:** INSERT 16 as the 3<sup>rd</sup> element in the sales vector
- e. **Q-5. Pg 22:** CREATE a vector < names > with Tom, John, Harry
- f. **Q-6. Pg 23:** CREATE a 5 rows / 2 columns matrix of 10 integers (1 to 10)
- a. **Q-7. Pg 26:** CREATE <icSales> dataframe with sales & temp vars
- b. **Q-8. Pages 28-31:** DISPLAY a summary and structure of the icSales data frame
- c. **Q-9. Pages 34-37:** IMPORT the attached data set as Student.csv.
- d. **Q-10** Obtain the means for Math, Science and Social Studies and create a vector named All\_means. Create a vector named All\_labels containing Math, Science and Social Studies, and finally present this data using a data frame.
- e. **Q11** Present key Summary Descriptive Statistics for the data set Student.csv.
- f. **Q12** Present bar graphs for each student (using their last names) and their corresponding Math, Science and Social Studies scores (you can present one or three independent bar graphs). Hint, use ?barplots to find additional information.

**Bibliography.** Include: youtube videos, instruction materials, google search results, texts that informed your study of statistics and R. Adhere to APA standards.

5. Useful libraries. Load these libraries into your project.

library(plyr)

```
library(FSA)
library(FSAdata)
library(magrittr)
library(dplyr)
library(plotrix)
library(ggplot2)
library(moments)
```

## 6. REPORT

Your report will be a single R file with the complete R Script you wrote and executed.  
This file must be well organized as explained in class.  
Use hashtags to organize your file, to create titles and labels and to explain your results.

```
# ALY6010-CRN (here add the CRN number of your class)
# Module 1 Part 2
# your name and last name
```

```
# Data (here insert the data indicated above)
```

```
#Q1
#Scatter plot of sales versus temperature
(enter your codes)
# Observations (indicate any observation about this question or your results)
```

```
#Q2 Mean temperature
(enter your codes)
# The mean temperature is ---- (enter the value)
```

```
#Q3 Deleting elements from the sales vector
(enter your codes)
```

And so on. Continue in a similar way with the rest of your project assignment.  
Make sure that all your codes run very well.