

# M2 Project R Script (Guidance)

Complete the following R-script tasks then write your Executive Summary. Use Kabacoff textbook and Google search when needed to discover the answers to the questions you must answer in your executive summary for Project 2. Append your R-script to the end of the executive summary.

Create a new R script with the file name: LastName-M2-Project2. (*Page references refer to the Kabacoff Text. Google must also be used to find the information that you may need.* Print your name at the top of the script.)

1. 1. PRINT "Plotting Basics: Your last name"
2. #2 IMPORT Libraries: FSA, FSAdata, magrittr, dplyr, plotrix, ggplot2, moments

***NOTE: You must use R version 3.6.3 to gain access to the FSA data set. If you installed a later version on R you must uninstall R studio and R. The reinstall R version 3.6.3 first followed by R studio.***

1. #3.LOAD The dataset "BullTroutRML2.csv" *Note the dataset is already imported into your project when you added the libraries FSA and FSAdata.*
2. #4.PRINT first and last 3 records dataset BullTroutRML2
3. #5 REMOVE all the records from BullTroutRML2 EXCEPT those from Harrison Lake *(hint: use the < filterD( ) function)*

***---NOTE: From here forward, the BullTroutRML2 always refers to the filtered-Harrison only subset that you just created. You may rename it something else if you wish.***

1. #6 DISPLAY again the first and last 5 records from dataset BullTroutRML2
2. #7DISPLAY the structure of the filtered BullTroutRML2 dataset
3. #8 DISPLAY the summary of the filtered BullTroutRML2 dataset
4. #9 PLOT A SCATTERPLOT ( The spec: age (y variable) and fl (x variable) from the "filtered-Harrison " BullTroutRML2. Set limits on x axis 0,500 and y axis 0,15. #Title is "Plot1: Harrison Lake Trout Scatter"

A screenshot of a cell phone

Description automatically generated#Label the y axis "Age (yrs)" and x axis "Fork Length (mm)",

#Use a filled small circle for the plotted data points)

1. #10 PLOT2 HISTOGRAM: a BullTroutRML2 age histogram with y axis label: #Frequency, x axis label:Age (yrs), Title: Plot2: Harrison Fish Age Histogram
2. #Both x and y axis limits 0 15

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#12 CREATE tmp object with the first 3 and last 3 records of BullTroutRML2 and

#13 DISPLAY the "era" column (variable) of the tmp object

#14 CREATE a pchs vector with numerical arguments for + and x

#14 CREATE a cols vector with the two elements: "red" and "gray60"

#15 CONVERT the tmp era values to numeric

#16 INITIALIZE the cols vector with tmp era values

#17 NOW PLOT4: (The spec: age(y variable) versus fl (x variable), Title Plot:"Plot4: Symbol & #Color By Era, Set x variable limits 0, 500 and y variable limits 0, 15, Set y axis label equal to "Age" and x axis label equal to Fork Length (mm). set pch equal to pchs era values and col equal to cols era values

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A close up of a map

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#19 PLOT6: Place a Legend overlay on PLOT5

A close up of a map

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**SUBMIT** your R-project2 through course in the indicated location in Module 2: Remember Project 2 is due at the end of Week3 (Saturday October 3rd).