

Home assignment 2

Please, use RStudio for your solution. **Deadline for this HA is 27 September 23:59 Moscow time.**

Name your file as «Surname_Name_H21» and put in Yandex folder (<https://disk.yandex.ru/d/D8xcpgNIV-FagQ>)

Watch the online lectures:

“Research Design: Inquiry and Discovery” at Coursera, week 1 & week 2.

<https://www.coursera.org/learn/quantitative-methods/home/welcome>

“Quantitative Methods” at Coursera, week 1-3 (optional)

<https://www.coursera.org/learn/research-inquiry-discovery/home/welcome>

Matrices, lists

1. Create a labelled matrix of (2,3) dimensions and assign it to a new object.
2. Create a string vector with 7 elements and assign it to a new object.
3. Save the results of this expression ($2^4 - \sqrt{9} - 3 \cdot 6$) into a new object.
4. Create a numeric vector with 4 elements.
5. Sum up the vector of 4 elements and the result of the calculation and assign it to a new object.
6. Combine these 4 objects into a list.
7. Select the 1st and 3rd objects from the list.
8. Select the first elements from each object of the list.
9. Select the last element from string vector in the list.
10. Select the cell (1,2) from the matrix in the list.
11. Select the first row from the matrix in the list.
12. Select the last column from the matrix in the list.

Data frames

1. Create the following table (data frame).

Country	Code	Males	Females	Total number of respondents
Russia	292	1025	1154	2189
Mali	566	445	490	935
USA	445	715	729	1444
Ghana	219	NA	NA	NA
Germany	817	1580	1700	3280
Sweedden	715	515	520	1035
Yemen	941	545	570	1115
Romania	120	498	548	1056
Hungary	931	400	340	740
Brazil	498	224	321	545

2. Save table as data frame.
3. Show the first 5 rows and 5 last rows in the data frame.
4. Check the class of all variables
5. Calculate mean, max, min for all numeric variables (columns)