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**Course:** Basics of R programming language for statistical analysis

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**Meeting 1:** Basic notions

**Exercises**

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**HINT:** Exercise 1 \_ REPRODUCE & Exercise 3 \_COMMENT provide a hint to solve Exercise 3\_PRODUCED.

**REPRODUCE Tasks:**

1. The vector `education=c("BA", "BA", "MSc", "MSc", "BA", "BA")` contains the education level of the participants in an R programming course. How many participants were in the course?

(Estimated time: 5 min)

2. The vector `age=c(20, 21, 23, 24, 22, 22)` contains the ages of the participants in an R programming course. What was the age of the oldest participant?

(Estimated time: 5 min)

**COMMENT Tasks:**

1. `rBasics_Meeting1.r`/line 43: EXERCISE POINT\_1: Check the function's documentation for `<<c()>>`. What does the `<<c>>` in `<<c()>>` function stand for?

(Estimated time: 5 min)

2. `rBasics_Meeting1.r`/line 147: EXERCISE POINT\_6: What is the difference between `<<newPerformance = performance + extraCredit>>` above and `<<newPerformance = c(performance,extraCredit)>>`?

(Estimated time: 5 min)

3. `commentCode.r`: Comment the R code.

(Estimated time: 45 min)

### **DEBUG Tasks:**

1. rBasics\_Meeting1.r/line 103: EXERCISE POINT\_3: The software returns <<Error in view(performance) : could not find function "view">>. What is the problem?  
(Estimated time: 5 min)
2. rBasics\_Meeting1.r/line 120: EXERCISE POINT\_5: I type <<sort(performance, descending=TRUE)>>. The software returns <<Error in sort.int(x, na.last = na.last, decreasing = decreasing, ...) : unused argument (descending = TRUE)>>.  
(Estimated time: 5 min)

### **PRODUCE Tasks:**

1. rBasics\_Meeting1.r/line 61: EXERCISE POINT\_2: Find the built-in function for power.  
(Estimated time: 10 min)
2. rBasics\_Meeting1.r/line 100: EXERCISE POINT\_4: What is the grade of the 7th student?  
(Estimated time: 5 min)
3. The grades of 5 students in Descriptive Statistics class were: 2, 10, 8, 7, 4. Students that took grades greater than 5 passed the exam. Students that took grades lower than 5 failed the exam. Store in a vector the performance of the five students as “pass” or “fail”. Name your vector <<pass>>. Did the last student pass or fail his exam?  
(Estimated time: 15 min)