**Step A: Create a Vector**

1. Define a vector ‘grades’, which contains the numbers 4.0, 3.3 and 3.7 (i.e., three numbers in the vector ‘grades’).
2. Define a vector ‘courseName’, which contain the strings “Bio”, “Math”, “History”.
3. Define a variable ‘BetterThanB’, that is equal to 3

**Step B: Calculating statistics using R**

1. Compute the average of the grades vector with the mean() function
2. Calculate the number of observations in the grades vector with the length() function, and store the result in the variable ‘total.length’
3. Output the value of ‘total.length’
4. Calculate the sum of ‘grades’ with the sum() function, store the result in ‘total’.
5. Recompute the average of all the grades by combining questions 5 and 7

**Step C: Using the max/min functions in R**

1. Compute the max grades, store the result in ‘maxG’
2. Compute the min grades, store the results in ‘minG’

**Step D: Vector Math**

1. Create a new vector called betterGrades, which is the grades + 0.3 (each grade improved each grade by 0.3 points)
2. Compute the average of betterGrades

**Step E: Using Conditional if statements**

1. Test if maxG is greater than3.5 (output “yes” or “no”)
2. Test if minG is greater than the variable ‘BetterThanB’’ (output “yes” or “no”)

*Hint - Try the following code in R:*

*if ( 100 < 150 ) "100 is less than 150" else "100 is greater than 150"*

**Step F: Accessing an element in a vector**

12) Output the name of the second class, in the 'courseName' vector

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