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Working with objects in R/RStudio

R uses objects to store information. Therefore the user applies functions to manipulate these objects and this is basically how this software works. Here let see how to create object in R, how to modify it and also some additional useful functions.

Lets create our first object

First we have to name the object and then write in some data using functions. In this example we name the object "my_object" and we store a vector with the numbers 1,3,4,7 and 11. The second part of the code checks what is the type of the object using the function class(). Finally we show the function is.numeric() that helps us determine whether given objects is numeric and therefore can be used for mathematical operations:

```
1  #Create object
2  my_object=c(1,3,4,7,11)
3
4  #Check the type of object
5  class(my_object)
6  #Check if it is numeric or not
7  is.numeric(my_object)
```

Switch between different types of objects

Different functions in R require different types of objects. Therfore it is crucial to know how to transform your data into different types. For more on the types of objects in R check our spreadsheet that we are giving as bonus. Here we show how to switch between the most widely used object types in R:

```
8
9    #Transform the object to data frame
10   my_object_df=as.data.frame(my_object)
11   class(my_object_df)
12
13   #Transform the object to matrix
14   my_object_mat=as.matrix(my_object)
15   class(my_object_mat)
16
```

Modifications on objects

It is often necessary to make modifications on data that is in the objects. Here we show how to combine (stack) several object by row or by column:

```
19
20   #Stacked the two objects on columns/rowsum
21   new_object_col=cbind(my_object,object2)
22   new_object_col
23   new_object_row=rbind(my_object,object2)
24   new_object_row
25
```

Next lets see how to access different elements in the data set and also how to delete data:

```
25
26   #Access particular element
27   new_object_col[1,2]
28   #Access particular row or column
29   new_object_row[,3]
30   new_object_row[2,]
31
32   #Remove particular row or column
33   new_object_row[,-3]
34   new_object_row[-2,]
35
```

Authors

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