

ACADGILD ASSIGNMENT - 1

1) Please mention true or false for the below statements:

a) **Prescriptive Analytics is used to predict the future outcomes.**

ANSWER: False

EXPLANATION : Prescriptive Analytics, which use optimization and simulation algorithms to advice on possible outcomes and answer

b) **Base R packages are installed automatically**

ANSWER: True

2) **What is Recycling of elements in a vector?**

ANSWER: When applying an operation to two *vectors* that requires them to be the same length, R automatically recycles, or repeats, elements of the shorter one, until it is long enough to match the longer Vector

3) **Give an example of recycling of elements.**

ANSWER : Suppose we have two Vectors `c(1,2,4)` , `c(6,0,9,10,13)`, where the first one is shorter with only 3 elements. Now if we sum these two, we will get a warning message as follows.

```
> c(1,2,4) + c(6,0,9,10,13)
```

```
[1] 7 2 13 11 15
```

Warning message:

In `c(1, 2, 4) + c(6, 0, 9, 10, 13)` : longer object length is not a multiple of shorter object length

Here R , Sum those Vectors by Recycling or repeating the elements in shorter one, until it is long enough to match the longer one as follows..

```
> c(1,2,4,1,2) + c(6,0,9,10,13)
```

```
[1] 7 2 13 11 15
```

RStudio

File Edit Code View Plots Session Build Debug Profile Tools Help

Go to file/function Addins

Project: (None)

Environment History Connections

Files Plots Packages Help Viewer

Install Update

Name	Description	Ver...
User Library		
<input type="checkbox"/> assertthat	Easy Pre and Post Assertions	0.2.0
<input type="checkbox"/> backports	Reimplementations of Functions Introduced Since R-3.0.0	1.1.2
<input type="checkbox"/> BH	Boost C++ Header Files	1.66.0-1
<input type="checkbox"/> bitops	Bitwise Operations	1.0-6
<input type="checkbox"/> cellranger	Translate Spreadsheet Cell Ranges to Rows and Columns	1.1.0
<input type="checkbox"/> cli	Helpers for Developing Command Line Interfaces	1.0.1
<input type="checkbox"/> clipr	Read and Write from the System Clipboard	0.4.1
<input type="checkbox"/> crayon	Colored Terminal Output	1.3.4
<input type="checkbox"/> curl	A Modern and Flexible Web Client for R	3.2
<input type="checkbox"/> describer	Describe Data in R Using Common Descriptive	0.2.0

```
> vector(c(1,2,4)+c(6,0,9,10,13))
Error in vector(c(1, 2, 4) + c(6, 0, 9, 10, 13)) :
  invalid 'mode' argument
In addition: warning message:
In c(1, 2, 4) + c(6, 0, 9, 10, 13) :
  longer object length is not a multiple of shorter object length
> #vector
> c(1,2,4,1,2)+c(6,0,9,10,13)
[1] 7 2 13 11 15
> |
```