

ASSIGNMENT1.1

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

a) Prescriptive Analytics is used to predict the future outcomes

Ans : False

b) Base R packages are installed automatically

Ans : True

2. What is Recycling of elements in a vector?

Ans : 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.

Ans : Suppose we have two Vectors $c(1,3,4)$, $c(5,0,8,10,13)$, 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(1,3,4) + c(5,0,8,10,13)
```

```
[1] 6 3 12 11 16
```

Warning message:

In $c(1,3,4) + c(5,0,8,10,13)$: 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(1,3,4,1,3) + c(5,0,8,10,13)
```

```
[1] 6 3 12 11 16
```