

Problem Statement

Please mention true or false for the below statements:

a) Prescriptive Analytics is used to predict the future outcomes

Ans: True

b) Base R packages are installed automatically

Ans: False

2. What is Recycling of elements in a vector?

Ans: when performing any arithmetic operation between two vectors, the vectors should be of the same length. But in R it recycles, meaning the shorter vector repeats itself to match with the longer vector and then the arithmetic operation is performed.

3. Give an example of recycling of elements.

Ans: In terms of normal arithmetic operation between vectors having the same length.

```
> c(2, 3, 1, 4, 0) + (48, 47, 49, 46, 50)
```

```
[1] 50, 50, 50, 50, 50
```

In terms of arithmetic operation between vectors of different length.

```
> c(2, 3) + (48, 47, 49, 46, 50)
```

```
[1] 50, 50, 51, 49, 52
```

The shorter vector repeats itself to match with longer vector as shown below:

```
> c(2, 3, 2, 3, 2) + (48, 47, 49, 46, 50)
```