ACADGILD ASSIGNMENT – 2

1) **How many ways are there to call a function in R?**

ANSWER: A function is an object or code written to carry out a specified task.It can or cannot accept arguments or parameters and it can or cannot return one or more values. R has a large number of in-built functions and the user can create their own functions.

In most cases, a function has a name, some arguments used as input to the function, within the () following the keyword 'function'; a body, which is the code within the curly braces {}, where you carry out the computation; and can have one or more output.

Syntax

func_name <- function (argument) {statement}

- Here, we can see that the reserved word function is used to declare a function in R.
- The statements within the curly braces form the body of the function. These braces are optional if the body contains only a single expression.
- Finally, this function object is given a name by assigning it to a variable, func_name.

Example of a Function

```
pow <- function(x, y) {
# function to print x raised to the power y
prints the result in appropriate format.
```

result <- x^y
Print(paste(x,"raised to the power", y, "is", result))
}
Here, we created a function called pow().
It takes two arguments, finds the first argument raised to the power of second argument and prints the result in appropriate format.

We have used a built-in function paste () which is used to concatenate strings

2) Is the below statement true?
The lazy evaluation of a function means, the argument is evaluated only if it is evaluated only if it is used inside the body of the function
ANSWER: True

Example:
In this example, the function f () has two arguments: a and b
> f <- function(a, b) {
+ a^2
+ }
> f(2)
[1] 4
This function never actually uses the argument b, so calling f(2) will not produce an error because the 2 gets positionally matched to a. This behaviour can be good or bad. It's common to write a function that doesn't use an argument and not notice it simply because R never throws an error.

3) Mention true or false for below statements:

a. Insights driven from descriptive analytics is not meaningful.
   Answer: False
b. The number of values in each Elements of a list, should be equal.
   Answer: False
c. The datasets are not stored in memory of the computer using R.
   Answer: True
d. Data frames and matrices are two dimensional however the array is multidimensional.
   Answer: True