Assignment – 2

Session 3 – Introduction to working with R

**5. Problem statement**

1. Define matrix mymat by replicating the sequence 1:5 for 4 times and transforming into a matrix, sum over rows and columns.

# define matrix mymat by replicating the sequence 1:5 for

#4 times and transforming into a matrix

mymat<-matrix(rep(seq(5), 4), ncol = 5)

mymat

# mymat sum on rows

apply(mymat, 1, sum)

# mymat sum on columns

apply(mymat, 2, sum)

> # define matrix mymat by replicating the sequence 1:5 for

> #4 times and transforming into a matrix

> mymat<-matrix(rep(seq(5), 4), ncol = 5)

> mymat

[,1] [,2] [,3] [,4] [,5]

[1,] 1 5 4 3 2

[2,] 2 1 5 4 3

[3,] 3 2 1 5 4

[4,] 4 3 2 1 5

>

>

> # mymat sum on rows

> apply(mymat, 1, sum)

[1] 15 15 15 15

>

>

> # mymat sum on columns

> apply(mymat, 2, sum)

[1] 10 11 12 13 14

**Here apply(m,dimcode,f,fargs)**

the arguments are as follows:

1. m is the matrix.
2. dimcode is the dimension, equal to 1 if the function applies to rows or 2 for columns.
3. f is the function to be applied.
4. fargs is an optional set of arguments to be supplied to f.

apply() function, instructs R to call a user-specified function on each of the rows or each of the columns of a matrix.

This is the general form for application of matrices