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**DATA ANALYTICS WITH R, EXCEL and TABLEAU**

**Session 5 – Assignment – 5.3**

1. Test whether two vectors are exactly equal (element by element).

Answer: vec1 = c(rownames(mtcars[1:15,]))

vec2 = c(rownames(mtcars[11:25,]))

isTRUE(all.equal(vec1,vec2)) # returns true/false

identical(vec1,vec2) # returns true/false

all.equal(vec1,vec2) # returns number of differences

2. Sort the character vector in ascending order and descending order.

**Answer:** vec1 = c(rownames(mtcars[1:15,]))

vec2 = c(rownames(mtcars[11:25,]))

sort(vec1) # vec1 in ascending order

sort(vec1, decreasing = TRUE) # vec1 in descending order

sort(vec2)

sort(vec2, decreasing = TRUE)

3. What is the major difference between str() and paste() show an example.

**Answer:** str(vec1)

returns the value, class and number of elements

chr [1:15] "Mazda RX4" "Mazda RX4 Wag" "Datsun 710" "Hornet 4 Drive" "Hornet Sportabout" ...

paste(vec1)

returns the value only(or just prints)

[1] "Mazda RX4" "Mazda RX4 Wag" "Datsun 710" "Hornet 4 Drive"

[5] "Hornet Sportabout" "Valiant" "Duster 360" "Merc 240D"

[9] "Merc 230" "Merc 280" "Merc 280C" "Merc 450SE"

[13] "Merc 450SL" "Merc 450SLC" "Cadillac Fleetwood"

mode(str(vec1))

mode(paste(vec1))

class(str(vec1))

class(paste(vec1))

4. Introduce a separator when concatenating the strings.

**Answer:** x<-c("a","b","c")

y<-c("A","B","C")

paste(x,y)

paste(x,y,sep = ",")

paste(x,y,sep = "-")