

## SESSION 5: Data Management Using R

### Assignment 2

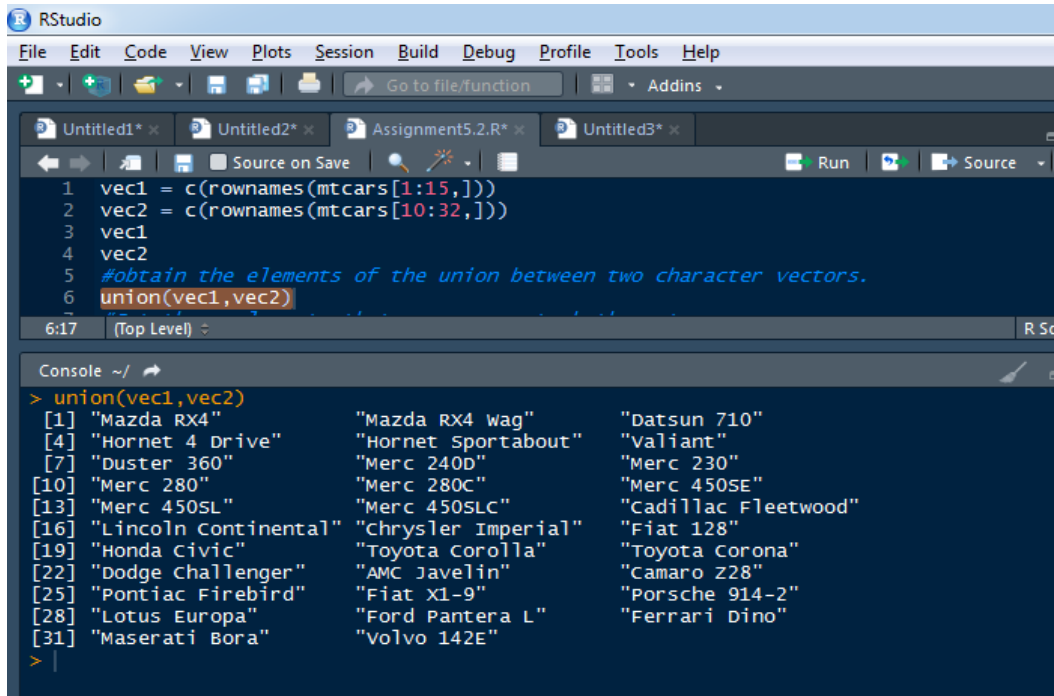
1. Obtain the elements of the union between two character vectors.

```
vec1 = c(rownames(mtcars[1:15,]))  
vec2 = c(rownames(mtcars[10:32,]))
```

Answer:

***union(vec1,vec2)***

Output:



The screenshot shows the RStudio interface with a script editor and a console. The script editor contains the following code:

```
1 vec1 = c(rownames(mtcars[1:15,]))  
2 vec2 = c(rownames(mtcars[10:32,]))  
3 vec1  
4 vec2  
5 #obtain the elements of the union between two character vectors.  
6 union(vec1,vec2)
```

The console shows the output of the `union(vec1,vec2)` command, displaying a list of 31 car models arranged in three columns:

```
> union(vec1,vec2)  
[1] "Mazda RX4"           "Mazda RX4 wag"       "Datsun 710"  
[4] "Hornet 4 Drive"      "Hornet Sportabout"   "Valiant"  
[7] "Duster 360"          "Merc 240D"           "Merc 230"  
[10] "Merc 280"            "Merc 280C"           "Merc 450SE"  
[13] "Merc 450SL"          "Merc 450SLC"         "Cadillac Fleetwood"  
[16] "Lincoln Continental" "Chrysler Imperial"   "Fiat 128"  
[19] "Honda Civic"         "Toyota Corolla"      "Toyota Corona"  
[22] "Dodge challenger"    "AMC Javelin"         "Camaro Z28"  
[25] "Pontiac Firebird"    "Fiat X1-9"           "Porsche 914-2"  
[28] "Lotus Europa"        "Ford Pantera L"      "Ferrari Dino"  
[31] "Maserati Bora"       "Volvo 142E"
```

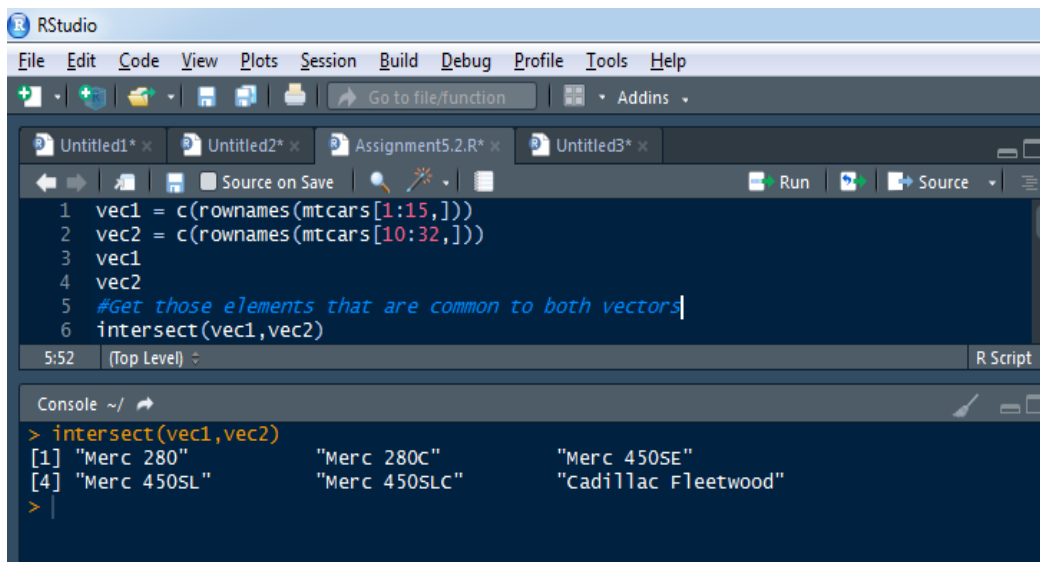
2. Get those elements that are common to both vectors

```
vec1 = c(rownames(mtcars[1:15,]))  
vec2 = c(rownames(mtcars[10:32,]))
```

Answer:

***intersect(vec1,vec2)***

Output:



The screenshot shows the RStudio interface with a script editor and a console. The script editor contains the following code:

```
1 vec1 = c(rownames(mtcars[1:15,]))  
2 vec2 = c(rownames(mtcars[10:32,]))  
3 vec1  
4 vec2  
5 #Get those elements that are common to both vectors  
6 intersect(vec1,vec2)
```

The console shows the output of the `intersect(vec1,vec2)` command, displaying a list of 4 car models that are common to both vectors:

```
> intersect(vec1,vec2)  
[1] "Merc 280"           "Merc 280C"           "Merc 450SE"  
[4] "Merc 450SL"         "Merc 450SLC"         "Cadillac Fleetwood"
```

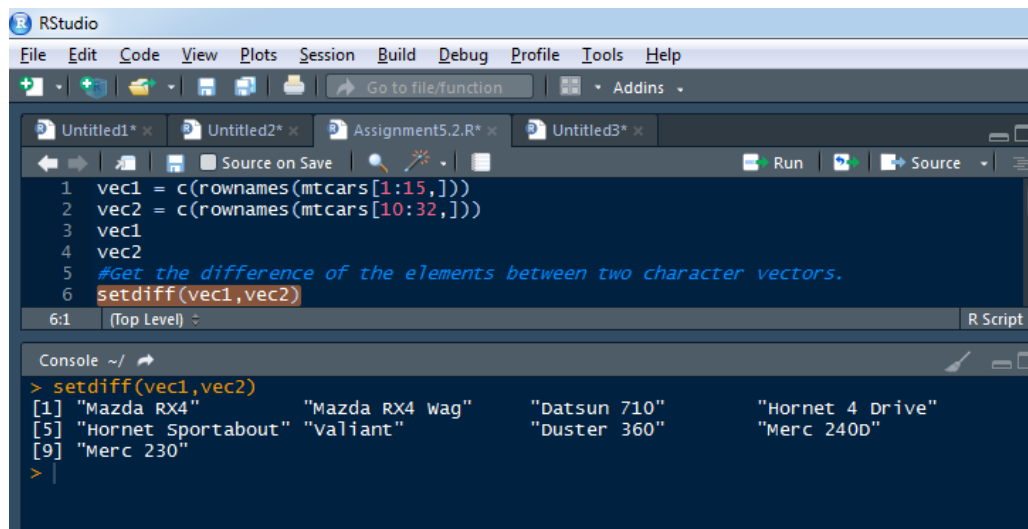
3. Get the difference of the elements between two character vectors.

```
vec1 = c(rownames(mtcars[1:15,]))  
vec2 = c(rownames(mtcars[10:32,]))
```

Answer:

***setdiff(vec1,vec2)***

Output:



The screenshot shows the RStudio interface with a script editor and a console. The script editor contains the following code:

```
1 vec1 = c(rownames(mtcars[1:15,]))  
2 vec2 = c(rownames(mtcars[10:32,]))  
3 vec1  
4 vec2  
5 #Get the difference of the elements between two character vectors.  
6 setdiff(vec1,vec2)
```

The console shows the output of the `setdiff` function:

```
> setdiff(vec1,vec2)  
[1] "Mazda RX4"      "Mazda RX4 wag"    "Datsun 710"      "Hornet 4 Drive"  
[5] "Hornet Sportabout" "Valiant"          "Duster 360"      "Merc 240D"  
[9] "Merc 230"  
> |
```

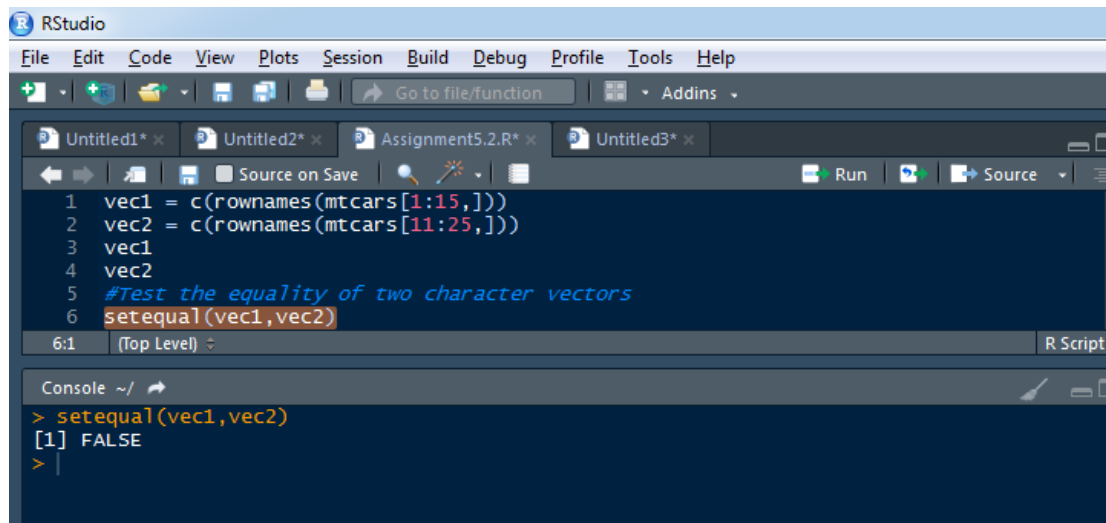
4. Test the equality of two character vectors

```
vec1 = c(rownames(mtcars[1:15,]))  
vec2 = c(rownames(mtcars[11:25,]))
```

Answer:

***setequal(vec1,vec2)***

Output:



The screenshot shows the RStudio interface with a script editor and a console. The script editor contains the following code:

```
1 vec1 = c(rownames(mtcars[1:15,]))  
2 vec2 = c(rownames(mtcars[11:25,]))  
3 vec1  
4 vec2  
5 #Test the equality of two character vectors  
6 setequal(vec1,vec2)
```

The console shows the output of the `setequal` function:

```
> setequal(vec1,vec2)  
[1] FALSE  
> |
```