

Session 5 – Data Management using R

Assignment – 2

Problem Statement

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

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

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

Ans .

```
84
85 vec1 = c(rownames(mtcars[1:15,]))
86 vec2 = c(rownames(mtcars[10:32,]))
87 vec1
88 vec2
89 union(vec1,vec2)
90
```

90:1 (Top Level) R Script

Console Terminal

```
> vec2 = c(rownames(mtcars[10:32,]))
> vec1
[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"
> vec2
[1] "Merc 280" "Merc 280C" "Merc 450SE" "Merc 450SL"
[5] "Merc 450SLC" "Cadillac Fleetwood" "Lincoln Continental" "Chrysler Imperial"
[9] "Fiat 128" "Honda Civic" "Toyota Corolla" "Toyota Corona"
[13] "Dodge Challenger" "AMC Javelin" "Camaro Z28" "Pontiac Firebird"
[17] "Fiat X1-9" "Porsche 914-2" "Lotus Europa" "Ford Pantera L"
[21] "Ferrari Dino" "Maserati Bora" "Volvo 142E"
> union(vec1,vec2)
[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" "Lincoln Continental"
[17] "Chrysler Imperial" "Fiat 128" "Honda Civic" "Toyota Corolla"
[21] "Toyota Corona" "Dodge Challenger" "AMC Javelin" "Camaro Z28"
[25] "Pontiac Firebird" "Fiat X1-9" "Porsche 914-2" "Lotus Europa"
[29] "Ford Pantera L" "Ferrari Dino" "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,]))
```

Ans.

```
> vec1 = c(rownames(mtcars[1:15,]))
> vec2 = c(rownames(mtcars[10:32,]))
>
> intersect(vec1,vec2)
[1] "Merc 280" "Merc 280C" "Merc 450SE" "Merc 450SL"
[5] "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,]))
```

Ans.

```
> vec1 = c(rownames(mtcars[1:15,]))
> vec2 = c(rownames(mtcars[10:32,]))
>
> intersect(vec1,vec2)
[1] "Merc 280"      "Merc 280C"      "Merc 450SE"      "Merc 450SL"
[5] "Merc 450SLC"   "Cadillac Fleetwood"
> 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 quality of two character vectors.

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

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

Ans.

```
> all.equal(vec1,vec2)
[1] "Lengths (15, 23) differ (string compare on first 15)"
[2] "15 string mismatches"
> |
```