ACADGILD

SESSION 5: Data Management Using R

Assignment 2

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1. Introduction

This assignment will help you understand the concepts learnt in the session.

2. Objective

This assignment will test your skills on Performing SET operations in R.

3. Prerequisites

Not applicable.

4. Associated Data Files

Not applicable.

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

```
> 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: #common
intersect(vec1,vec2)

```
> 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: #non-common
setdiff(vec1,vec2)

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

4. **Test the equality of two character vectors**

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

ANS:

```
#Equality
  setequal(vec1,vec2)
```

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