

Session 5

Assignment 2

Q1

The screenshot shows the RStudio interface with the following components:

- Source Editor:** Contains R code for creating vectors `x` and `y` from `mtcars` rownames and combining them into `union(x, y)`.
- Environment:** Lists objects in the global environment, including `m`, `my_vector`, `my_veector`, `n`, `v1`, `v2`, `vec1`, `x`, and `y`.
- Console:** Displays the output of the `union(x, y)` command, showing a matrix of car names.
- Package List:** A table of installed and available packages.

Console Output:

```
> y <- c(rownames(mtcars[1:15,]))
> x <- c(rownames(mtcars[10:32,]))
> union(x, y)
 [1] "Mazda RX4"           "Mazda RX4 wag"      "Datsun 710"
 [4] "Hornet 4 Drive"      "Hornet Sportabout"  "valiant"
 [7] "Duster 360"         "Merc 240b"          "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"
>
```

Package List:

Name	Description	Version
assertthat	Easy Pre and Post Assertions	0.2.1
BH	Boost C++ Header Files	1.69.0-1
binneR	Spectral Processing for High Resolution Flow Infusion Mass Spectrometry	2.0.11
cli	Helpers for Developing Command Line Interfaces	1.1.0
colorspace	A Toolbox for Manipulating and Assessing Colors and Palettes	1.4-1
crayon	Colored Terminal Output	1.3.4
digest	Create Compact Hash Digests of R Objects	0.6.18
dplyr	A Grammar of Data Manipulation	0.8.0.1
fansi	ANSI Control Sequence Aware String Functions	0.4.0
foreach	Provides Foreach Looping Construct for R	1.4.4
ggplot2	Create Elegant Data Visualisations Using the Grammar of Graphics	3.1.1
ggthemes	Extra Themes, Scales and Geoms for ggplot2	4.1.1
glue	Interpreted String Literals	1.3.1
gtable	Arrange 'Grob's in Tables	0.3.0

Q2

RStudio

File Edit Code View Plots Session Build Debug Profile Tools Help

Go to file/function Addins

matrix3.R*

```
1 x <- c(rownames(mtcars[1:15,]))
2 y <- c(rownames(mtcars[10:32,]))
3 intersect(x,y)
4 |
```

4:1 (Top Level) R Script

Console

```
~/
[1] "Merc 280" "Merc 280C" "Merc 450SE"
[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"
> x <- c(rownames(mtcars[1:15,]))
> y <- c(rownames(mtcars[10:32,]))
> intersect(x,y)
[1] "Merc 280" "Merc 280C" "Merc 450SE"
[4] "Merc 450SL" "Merc 450SLC" "Cadillac Fleetwood"
> |
```

Environment History Connections

Global Environment

m	10
my_vector	int [1:10] 1 2 3 4 5 6 7 8 9 10
my_veector	int [1:10] 1 2 3 4 5 6 7 8 9 10
n	10
v1	num [1:4] 9 5 6 8
v2	num [1:2] 10 5
vec1	chr [1:15] "Mazda RX4" "Mazda R
x	chr [1:15] "Mazda RX4" "Mazda R
y	chr [1:23] "Merc 280" "Merc 280

Files Plots Packages Help Viewer

Install Update

Name	Description
User Library	
<input type="checkbox"/> assertthat	Easy Pre and Post Assertions
<input type="checkbox"/> BH	Boost C++ Header Files
<input type="checkbox"/> binneR	Spectral Processing for High Resolution Flow In Spectrometry
<input type="checkbox"/> cli	Helpers for Developing Command Line Interfac
<input type="checkbox"/> colorspace	A Toolbox for Manipulating and Assessing Colo Palettes
<input type="checkbox"/> crayon	Colored Terminal Output
<input type="checkbox"/> digest	Create Compact Hash Digests of R Objects
<input type="checkbox"/> dplyr	A Grammar of Data Manipulation
<input type="checkbox"/> fansi	ANSI Control Sequence Aware String Functions
<input type="checkbox"/> foreach	Provides Foreach Looping Construct for R
<input type="checkbox"/> ggplot2	Create Elegant Data Visualisations Using the Gra Graphics
<input type="checkbox"/> ggthemes	Extra Themes, Scales and Geoms for ggplot2
<input type="checkbox"/> glue	Interpreted String Literals
<input type="checkbox"/> gtable	Arrange 'Grobs' in Tables

Windows Taskbar: Type here to search, Task View, Edge, File Explorer, Microsoft Store, Firefox, Mail, Chrome, RStudio, Adobe Reader, Word

Q3

RStudio

File Edit Code View Plots Session Build Debug Profile Tools Help

Go to file/function Addins

```
1 x <- c(rownames(mtcars[1:15,]))
2 y <- c(rownames(mtcars[10:32,]))
3 setdiff(x,y)
4 setdiff(y,x)
```

Environment History Connections

Global Environment

m	10
my_vector	int [1:10] 1 2 3 4 5 6 7 8 9 10
my_veector	int [1:10] 1 2 3 4 5 6 7 8 9 10
n	10
v1	num [1:4] 9 5 6 8
v2	num [1:2] 10 5
vec1	chr [1:15] "Mazda RX4" "Mazda RX4 Wag" "Datsun 710"...
x	chr [1:15] "Mazda RX4" "Mazda RX4 Wag" "Datsun 710"...
y	chr [1:23] "Merc 280" "Merc 280C" "Merc 450SE" "Mer..."

Files Plots Packages Help Viewer

Install Update

User Library

Name	Description	Version
<input type="checkbox"/> assertthat	Easy Pre and Post Assertions	0.2.1
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<input type="checkbox"/> gtable	Arrange 'Grob's in Tables	0.3.0

Console

```
> x <- c(rownames(mtcars[1:15,]))
> y <- c(rownames(mtcars[10:32,]))
> setdiff(x,y)
[1] "Mazda RX4" "Mazda RX4 Wag" "Datsun 710" "Hornet 4 Drive"
[5] "Hornet Sportabout" "Valiant" "Duster 360" "Merc 240D"
[9] "Merc 230"
> setdiff(y,x)
[1] "Lincoln Continental" "Chrysler Imperial" "Fiat 128"
[4] "Honda Civic" "Toyota Corolla" "Toyota Corona"
[7] "Dodge Challenger" "AMC Javelin" "Camaro Z28"
[10] "Pontiac Firebird" "Fiat X1-9" "Porsche 914-2"
[13] "Lotus Europa" "Ford Pantera L" "Ferrari Dino"
[16] "Maserati Bora" "Volvo 142E"
>
```

Type here to search

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