INFO 523 Exercise

HW1: Introduction to R Exercise

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Part 1

Basics of R

Finding the R version

```
R.version
```

```
               _
platform       x86_64-pc-linux-gnu
arch           x86_64
os             linux-gnu
system         x86_64, linux-gnu
```

```
status
major          4
minor          3.1
year           2023
month          06
day            16
svn rev        84548
language       R
version.string R version 4.3.1 (2023-06-16)
nickname       Beagle Scouts
```

The code `R.version()` gives us the details of the platform, the kind of system on which our system operates (e.g., here it is a 64-bit operating system), the OS, the date, the version of R installed (4.3.1), and other general information about the environment where R has been installed.

Packages

Packages are important components of any programming language because they are like supporting pillars which makes our code run. There are several packages in R which will be used for various purposes.

Let's install the package `DMwR2` . The syntax for this is `install.packages("DMwR2")` .

```
install.packages("DMwR2")
```

This is one of the main package which we are going to use in Data mining subject. We shall see some of it's other functionalities below.

If we run into any kind of trouble with respect to any package we installed, we can use the code `help()` to see what is really in the document. Now, let's test it out by running the code `help(package="DMwR2")` .

```
help(package="DMwR2")
```

When I executed the `help(package="DMwR2")` command, the help menu which was on the side opened up which contains the compelte documentation for the package 'DMwR2'.

After installing of package, I need to use it. So, there are two ways by which I can access the package which I will list below.

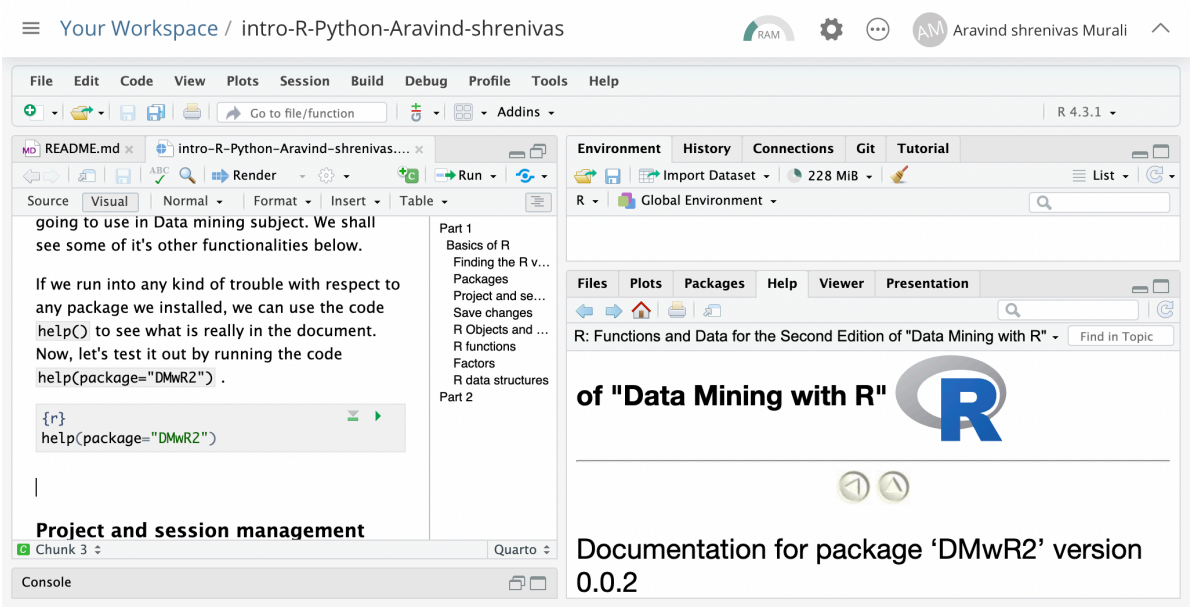

Figure 1: fig 1. help() Output

1. There is a keyword called `library()` . When I want to use a function repeatedly, I can just load up the function to the temporary memory using this function for frequent use. For eg. let's say I want to use this 'DMwR2' package, the following code must be used.

```
library(DMwR2)
```

```
Registered S3 method overwritten by 'quantmod':
  method            from
  as.zoo.data.frame zoo
```

Now, I can access any function or dataset associated with the package 'DMwR2' by using it's name directly. An example is given below.

```
# I will load an available dataset 'algae' directly by referencing it's name
data(algae)
```

Project and session management

Save changes

R Objects and Variables

R functions

Factors

R data structures

Part 2