Introduction to R: The R workspace

Revolution Analytics

1. The R workspace and `.RData` type

Overview

In this session you get started with manage the workspace:

- Add and remove objets in the workspace
- Save your workspace
- Load a previously stored workspace

Outline

1. The R workspace and `.RData` type

The working directory

If you do not explicitly set the filepath, R will assume that you want to save to or load from the current working directory.

Use `getwd()` to display the current working directory and setwd to change the working directory:

```
getwd()
```

Note: In Linux operating systems, use / to delimit file paths. In Windows you can use either / or \\ as the delimiter. Since \ has special meaning, you have to "double up".

The R workspace

Data objects are held in your computer's memory via the R workspace

You can display the objects currently in your workspace using the objects() command:

```
objects()
```

```
##  [1] "build_dir"         "cache_dir"         "compile"
##  [4] "compute"           "compute_build_dir" "compute.context"
##  [7] "convert"           "docs_dir"          "encoding"
## [10] "ext"               "fig_dir"           "files_dir"
## [13] "format"            "input"             "input_lines"
## [16] "input_name"        "md_input"          "output"
## [19] "output_dir"        "output_name"       "output.format"
...
```

The `.RData` file type

Use save to write an individual R object to file as a .RData file type:

```
cars.mod <- cars
outdir = "../output"
save(cars.mod, file = file.path(outdir, "cars_mod.RData"))
```

The save.image command writes every object in the R workspace to file:

```
save.image(file.path(outdir, "workspace.RData"))
```

Loading previously saved workspaces

The load command is used to import .RData files into the R workspace:

```
remove(cars.mod)
load(file.path(outdir, "cars_mod.RData"))
```

Note: The file name of an .RData object is not the same as the variable name it was saved as

Exercise

Your turn:

- Set your course materials file as your working directory.
- Write the modified cars data set to file as a `.Rdata object` and re-load that object in your workspace.
- Save your entire workspace to file, and re-load that workspace in the RPE.

Thank you

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