# Example

Milan Malfait, Ghent University

July 20, 2022

#### 1 R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

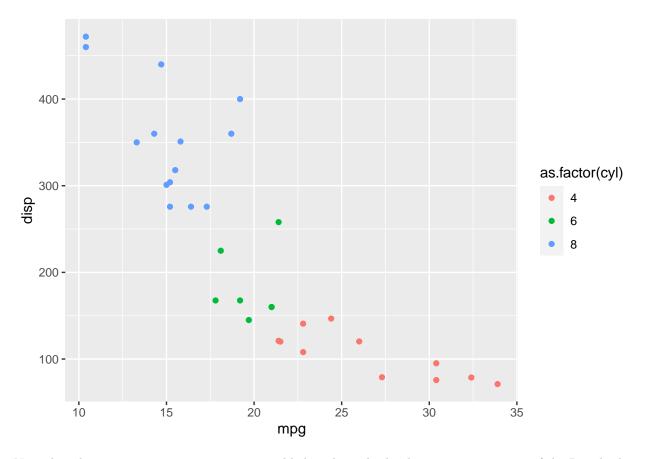
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

#### summary(cars)

```
##
                          dist
         speed
    {\tt Min.}
##
            : 4.0
                     Min.
                             :
                                2.00
    1st Qu.:12.0
                     1st Qu.: 26.00
##
##
    Median:15.0
                     Median : 36.00
##
    Mean
            :15.4
                     Mean
                             : 42.98
    3rd Qu.:19.0
                     3rd Qu.: 56.00
##
            :25.0
                             :120.00
##
    Max.
                     Max.
```

## 2 Including Plots

You can also embed plots, for example:



Note that the echo = FALSE parameter was added to the code chunk to prevent printing of the R code that generated the plot.

## 3 Caching

The GHA workflow maintains cached *knitr* results between subsequent runs to reduce runtime. Caching can be enabled by specifying cache=TRUE in the code chunk header.

Note that this should be used with caution, as caches may become invalid when code is changed, potentially leading to unsuspected results.

```
## Run with caching enabled
Sys.time()
```

## [1] "2022-07-20 12:47:20 UTC"

### Session info

Session info

## [1] "2022-07-20 12:47:20 UTC"

```
## - Session info -------------
##
   setting value
   version R version 4.1.3 (2022-03-10)
##
            Ubuntu 20.04.4 LTS
            x86_64, linux-gnu
##
   system
## ui
            X11
##
   language (EN)
##
   collate C.UTF-8
##
   ctype
            C.UTF-8
##
   tz
            UTC
##
   date
            2022-07-20
##
            2.14.2 @ /usr/bin/ (via rmarkdown)
   pandoc
##
! package
                * version date (UTC) lib source
##
   P assertthat
                  0.2.1
                          2019-03-21 [?] CRAN (R 4.1.3)
##
                  1.30.16 2021-06-15 [?] CRAN (R 4.1.3)
   P BiocManager
##
  P bslib
                  0.3.1
                          2021-10-06 [?] CRAN (R 4.1.3)
##
                  3.2.0
                          2022-02-14 [?] CRAN (R 4.1.3)
  P cli
##
     codetools
                  0.2-18 2020-11-04 [2] CRAN (R 4.1.3)
##
  P colorspace
                  2.0 - 3
                         2022-02-21 [?] CRAN (R 4.1.3)
                  1.5.0
                          2022-02-14 [?] CRAN (R 4.1.3)
  P crayon
## P DBI
                  1.1.1
                          2021-01-15 [?] CRAN (R 4.1.3)
## P digest
                  0.6.29 2021-12-01 [?] CRAN (R 4.1.3)
## P dplyr
                  1.0.7
                          2021-06-18 [?] CRAN (R 4.1.3)
## P ellipsis
                  0.3.2
                          2021-04-29 [?] CRAN (R 4.1.3)
## P evaluate
                  0.15
                          2022-02-18 [?] CRAN (R 4.1.3)
                         2022-01-14 [?] CRAN (R 4.1.3)
## P fansi
                  1.0.2
## P farver
                         2021-02-28 [?] CRAN (R 4.1.3)
                  2.1.0
  P fastmap
                  1.1.0
                          2021-01-25 [?] CRAN (R 4.1.3)
                          2020-10-31 [?] CRAN (R 4.1.3)
##
   P generics
                  0.1.0
##
  P ggplot2
                * 3.3.5
                          2021-06-25 [?] CRAN (R 4.1.3)
##
  P glue
                  1.6.2
                          2022-02-24 [?] CRAN (R 4.1.3)
##
                  0.3.0
                          2019-03-25 [?] CRAN (R 4.1.3)
  P gtable
##
   P highr
                  0.9
                          2021-04-16 [?] CRAN (R 4.1.3)
## P htmltools
                  0.5.2
                         2021-08-25 [?] CRAN (R 4.1.3)
  P jquerylib
                  0.1.4
                          2021-04-26 [?] CRAN (R 4.1.3)
## P jsonlite
                  1.8.0
                          2022-02-22 [?] CRAN (R 4.1.3)
## P knitr
                  1.37
                          2021-12-16 [?] CRAN (R 4.1.3)
## P labeling
                  0.4.2
                          2020-10-20 [?] CRAN (R 4.1.3)
                          2021-09-24 [?] CRAN (R 4.1.3)
## P lifecycle
                  1.0.1
## P magrittr
                  2.0.2
                          2022-01-26 [?] CRAN (R 4.1.3)
## P munsell
                  0.5.0
                          2018-06-12 [?] CRAN (R 4.1.3)
## P pillar
                  1.7.0
                          2022-02-01 [?] CRAN (R 4.1.3)
  P pkgconfig
                  2.0.3
                          2022-07-20 [?] Github (r-lib/pkgconfig@b81ae03)
                          2020-04-17 [?] CRAN (R 4.1.3)
## P purrr
                  0.3.4
##
   P R6
                  2.5.1
                          2021-08-19 [?] CRAN (R 4.1.3)
##
                  0.15.4 2022-03-03 [?] CRAN (R 4.1.3)
  P renv
  P rlang
                  1.0.2
                          2022-03-04 [?] CRAN (R 4.1.3)
## P rmarkdown
                  2.13
                          2022-03-10 [?] CRAN (R 4.1.3)
## P sass
                  0.4.0
                         2021-05-12 [?] CRAN (R 4.1.3)
## P scales
                  1.1.1
                         2020-05-11 [?] CRAN (R 4.1.3)
## P sessioninfo
                  1.2.2
                          2021-12-06 [?] CRAN (R 4.1.3)
## P stringi
                  1.7.6
                          2021-11-29 [?] CRAN (R 4.1.3)
```

```
## P stringr 1.4.0 2019-02-10 [?] CRAN (R 4.1.3) ## P tibble 3.1.6 2021-11-07 [?] CRAN (R 4.1.3)
## P tidyselect 1.1.1 2021-04-30 [?] CRAN (R 4.1.3)
               1.2.2 2021-07-24 [?] CRAN (R 4.1.3)
## P utf8
                 0.3.8 2021-04-29 [?] CRAN (R 4.1.3)
## P vctrs
## P withr
                2.5.0 2022-03-03 [?] CRAN (R 4.1.3)
## P xfun
                0.30 2022-03-02 [?] CRAN (R 4.1.3)
## P yaml
                 2.3.5 2022-02-21 [?] CRAN (R 4.1.3)
##
##
  [1] /home/runner/work/PDA22EBI/PDA22EBI/renv/library/R-4.1/x86_64-pc-linux-gnu
## [2] /opt/R/4.1.3/lib/R/library
##
## P -- Loaded and on-disk path mismatch.
##
## ------
```