# Example

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September 01, 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)

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

#### head(cars)

```
##
     speed dist
## 1
          4
                2
## 2
          4
               10
   3
          7
                4
          7
##
               22
## 5
          8
               16
          9
## 6
               10
```

## 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] "2022-09-01 14:39:31 UTC"

## Session info

Session info

## [1] "2022-09-01 14:39:31 UTC"

```
## - Session info -------------
   setting value
   version R version 4.1.3 (2022-03-10)
##
            Ubuntu 20.04.4 LTS
           x86_64, linux-gnu
##
   system
##
           X11
  ui
   language (EN)
##
   collate C.UTF-8
##
   ctype
            C.UTF-8
##
   tz
            UTC
   date
            2022-09-01
##
           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)
##
                  1.30.18 2022-05-18 [?] CRAN (R 4.1.3)
   P BiocManager
##
   P bslib
                  0.4.0
                          2022-07-16 [?] CRAN (R 4.1.3)
##
                  1.0.6
                          2021-08-19 [?] CRAN (R 4.1.3)
  P cachem
## P cli
                  3.3.0
                          2022-04-25 [?] CRAN (R 4.1.3)
##
     codetools
                  0.2-18 2020-11-04 [2] CRAN (R 4.1.3)
                  2.0 - 3
                          2022-02-21 [?] CRAN (R 4.1.3)
  P colorspace
##
  P DBI
                  1.1.2
                          2021-12-20 [?] CRAN (R 4.1.3)
                  0.6.29 2021-12-01 [?] CRAN (R 4.1.3)
##
   P digest
## P dplyr
                  1.0.10 2022-09-01 [?] CRAN (R 4.1.3)
## P evaluate
                  0.16
                          2022-08-09 [?] CRAN (R 4.1.3)
## P fansi
                  1.0.3
                          2022-03-24 [?] CRAN (R 4.1.3)
                          2022-07-06 [?] CRAN (R 4.1.3)
## P farver
                  2.1.1
## P fastmap
                  1.1.0
                         2021-01-25 [?] CRAN (R 4.1.3)
  P generics
                  0.1.3
                          2022-07-05 [?] CRAN (R 4.1.3)
                          2022-05-03 [?] CRAN (R 4.1.3)
##
   P ggplot2
                * 3.3.6
## P glue
                  1.6.2
                          2022-02-24 [?] CRAN (R 4.1.3)
##
  P gtable
                  0.3.1
                          2022-09-01 [?] CRAN (R 4.1.3)
## P highr
                          2021-04-16 [?] CRAN (R 4.1.3)
                  0.9
                          2022-07-18 [?] CRAN (R 4.1.3)
## P htmltools
                  0.5.3
## 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
                  1.40
                          2022-08-24 [?] CRAN (R 4.1.3)
##
   P labeling
                  0.4.2
                          2020-10-20 [?] CRAN (R 4.1.3)
## P lifecycle
                  1.0.1
                          2021-09-24 [?] CRAN (R 4.1.3)
## P magrittr
                  2.0.3
                          2022-03-30 [?] CRAN (R 4.1.3)
## P munsell
                  0.5.0
                          2018-06-12 [?] CRAN (R 4.1.3)
                          2022-08-19 [?] CRAN (R 4.1.3)
  P pillar
                  1.8.1
  P pkgconfig
##
                  2.0.3
                          2019-09-22 [?] CRAN (R 4.1.3)
                  0.3.4
                          2020-04-17 [?] CRAN (R 4.1.3)
  P purrr
## P R6
                          2021-08-19 [?] CRAN (R 4.1.3)
                  2.5.1
##
   P renv
                  0.15.4 2022-03-03 [?] CRAN (R 4.1.3)
##
                          2022-08-31 [?] CRAN (R 4.1.3)
  P rlang
                  1.0.5
## P rmarkdown
                  2.16
                          2022-08-24 [?] CRAN (R 4.1.3)
                          2022-07-16 [?] CRAN (R 4.1.3)
## P sass
                  0.4.2
## P scales
                  1.2.1
                         2022-08-20 [?] 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
                  1.4.1
                          2022-08-20 [?] CRAN (R 4.1.3)
```

```
## P tibble
           3.1.8 2022-07-22 [?] CRAN (R 4.1.3)
## P tidyselect 1.1.2 2022-02-21 [?] CRAN (R 4.1.3)
## P utf8
         1.2.2 2021-07-24 [?] CRAN (R 4.1.3)
## P vctrs
               0.4.1 2022-04-13 [?] CRAN (R 4.1.3)
               2.5.0 2022-03-03 [?] CRAN (R 4.1.3)
## P withr
## P xfun
               0.32 2022-08-10 [?] CRAN (R 4.1.3)
              2.3.5 2022-02-21 [?] CRAN (R 4.1.3)
## P yaml
##
## [1] /home/runner/work/PDAEuroBioc22/PDAEuroBioc22/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.
##
## -----
```