# R Markdown tutorial

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#### 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.

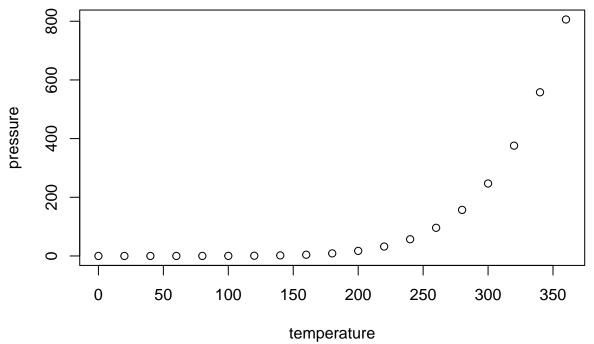
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

### summary(cars)

```
##
        speed
                         dist
                              2.00
##
           : 4.0
                    Min.
                            :
    Min.
    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.
```

### **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.

### Quick Markdown tutorial

Italic text

**Bold** text

### Header one

#### Header two

#### Header three

R Markdown

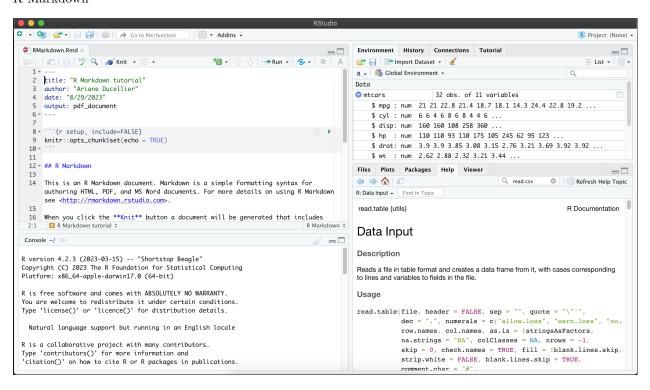


Figure 1: RStudio interface

- "A quote"
- List item 1
- List item 2
- 1. Ordered list item 1
- 2. Ordered list item 2

Line 1 followed by two spaces

Line 2

 $x = \frac{y}{x}$ 

## More RMarkdown

result <- 2 + 4

Here is the result: 6.

library(knitr)

kable(mtcars[1:5], caption="A knitr table")

Table 1: A knitr table

|                     | mpg  | cyl | $\operatorname{disp}$ | hp  | drat |
|---------------------|------|-----|-----------------------|-----|------|
| Mazda RX4           | 21.0 | 6   | 160.0                 | 110 | 3.90 |
| Mazda RX4 Wag       | 21.0 | 6   | 160.0                 | 110 | 3.90 |
| Datsun 710          | 22.8 | 4   | 108.0                 | 93  | 3.85 |
| Hornet 4 Drive      | 21.4 | 6   | 258.0                 | 110 | 3.08 |
| Hornet Sportabout   | 18.7 | 8   | 360.0                 | 175 | 3.15 |
| Valiant             | 18.1 | 6   | 225.0                 | 105 | 2.76 |
| Duster 360          | 14.3 | 8   | 360.0                 | 245 | 3.21 |
| Merc 240D           | 24.4 | 4   | 146.7                 | 62  | 3.69 |
| Merc 230            | 22.8 | 4   | 140.8                 | 95  | 3.92 |
| Merc 280            | 19.2 | 6   | 167.6                 | 123 | 3.92 |
| Merc 280C           | 17.8 | 6   | 167.6                 | 123 | 3.92 |
| Merc 450SE          | 16.4 | 8   | 275.8                 | 180 | 3.07 |
| Merc 450SL          | 17.3 | 8   | 275.8                 | 180 | 3.07 |
| $Merc\ 450SLC$      | 15.2 | 8   | 275.8                 | 180 | 3.07 |
| Cadillac Fleetwood  | 10.4 | 8   | 472.0                 | 205 | 2.93 |
| Lincoln Continental | 10.4 | 8   | 460.0                 | 215 | 3.00 |
| Chrysler Imperial   | 14.7 | 8   | 440.0                 | 230 | 3.23 |
| Fiat 128            | 32.4 | 4   | 78.7                  | 66  | 4.08 |
| Honda Civic         | 30.4 | 4   | 75.7                  | 52  | 4.93 |
| Toyota Corolla      | 33.9 | 4   | 71.1                  | 65  | 4.22 |
| Toyota Corona       | 21.5 | 4   | 120.1                 | 97  | 3.70 |
| Dodge Challenger    | 15.5 | 8   | 318.0                 | 150 | 2.76 |
| AMC Javelin         | 15.2 | 8   | 304.0                 | 150 | 3.15 |
| Camaro Z28          | 13.3 | 8   | 350.0                 | 245 | 3.73 |
| Pontiac Firebird    | 19.2 | 8   | 400.0                 | 175 | 3.08 |
| Fiat X1-9           | 27.3 | 4   | 79.0                  | 66  | 4.08 |
| Porsche 914-2       | 26.0 | 4   | 120.3                 | 91  | 4.43 |
| Lotus Europa        | 30.4 | 4   | 95.1                  | 113 | 3.77 |
| Ford Pantera L      | 15.8 | 8   | 351.0                 | 264 | 4.22 |
| Ferrari Dino        | 19.7 | 6   | 145.0                 | 175 | 3.62 |
| Maserati Bora       | 15.0 | 8   | 301.0                 | 335 | 3.54 |
| Volvo 142E          | 21.4 | 4   | 121.0                 | 109 | 4.11 |