

# This is the Title of Your Report Generated from R Markdown

## What is Markdown

**Markdown** is an easy text file format that allows you to write up a document and apply stylings to create highly presentable output that can be published in various ways, including as PDF and as HTML webpages.

## Common Markdown syntax

Refer to the PDF output (created by “Knit PDF” in this RStudio window) to see how the below inputs are rendered in the final PDF output

**Make a 1st-Level Header by inserting 1 hash character in front**

**Make a 2nd-Level Header by inserting 2 hash characters in front**

**Make a 3rd-Level Header by inserting 3 hash characters in front**

*make italic text by putting 1 star character at each end*

**make bold text by putting 2 star characters at each end**

***then, obviously, this is how to make bold italic text***

Make an numbered (ordered) list by simply putting “1.”, “2.”, “3.”, etc., like so:

1. First item
2. Second item
3. Third item

Make an unordered list by putting “-” and a space in front of each item, like so:

- Unordered item
- Unordered item
- Unordered item

Make [hyperlinked text](#), e.g. [referring to Google.com](#) like this.

Images can be embedded easily, with a caption too, like so:

## Embedding R code in R Markdown

The real power of R Markdown is in allowing you to embed R code into your document, and get the code executed and its results presented nicely the output - so that you can tell a wholesome, coherent story of your analysis.

You can insert R code to be run between the triple back-ticks like so:



Figure 1: Chicago Booth logo

```
library(ggplot2)  # comment: load GGPlot2 package
summary(cars)     # summarize Cars data set
```

```
##      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    Mean   : 42.98
##  3rd Qu.:19.0    3rd Qu.: 56.00
##  Max.   :25.0    Max.   :120.00
```

R code blocks run sequentially, so you can continue with your R analysis in a separate code block, e.g. to make a plot like so: (note the figure width and height (in inches) settings in the `{}`)

```
qplot(speed, dist, data=cars) + geom_smooth()  # a quick plot
```

```
## geom_smooth: method="auto" and size of largest group is <1000, so using loess. Use 'method = x' to c
```

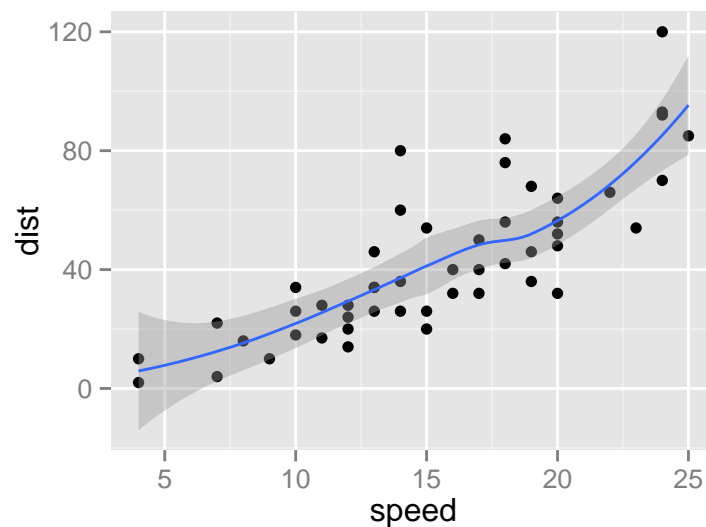


Figure 2:

Note that in the above examples:

- Each code block is repeated (echoed),
- Each code block's results are displayed, and
- All messages / warnings from running the R code are displayed

in the output document. Sometimes we may want to alter these display behaviors for our needs.

You can set a code block to be **not** echoed by specifying `echo=FALSE` like the following code block, which silently sets a variable `RVar` to value 1.2:

You can hide the outputs from a code block by specifying `results='hide'` like in the following code block, which will not display the variable `RVar`'s value:

```
print(RVar)
```

You can hide messages and/or warnings by specifying *message=FALSE* and/or *warning=FALSE*:

```
qplot(speed, dist, data=cars) + geom_smooth() # a quick plot without messages / warnings
```

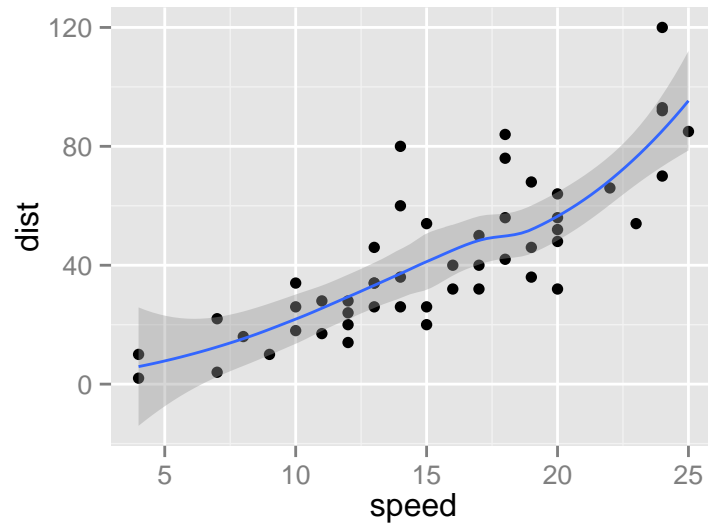


Figure 3:

Lastly, you can run certain short R code “in-line” and display its value by putting the code between single back-ticks, e.g. like in referring to the value of the *RVar* variable: *RVar*’s value is currently *1.2*.

THE END.