

# Module2- R Markdown Document 1

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```
knitr::opts_chunk$set(echo = TRUE)

# Set repo
local({r <- getOption("repos")
  r["CRAN"] <- "http://cran.rstudio.com/"
  options(repos=r)})

# ipak function: install and load multiple R packages.
# check to see if the packages are installed. Install them if they are not, then load them into the R session.

ipak <- function(pkg){
  new.pkg <- pkg[!(pkg %in% installed.packages()[, "Package"])]
  if (length(new.pkg))
    install.packages(new.pkg, dependencies = TRUE)
  sapply(pkg, require, character.only = TRUE)
}

# usage
packages <- c("tidyr", "dplyr", "ggplot2", "knitr", "rmarkdown", "DBI", "tinytex", "devtools")
ipak(packages)
```

```
## Loading required package: tidyr
```

```
## Loading required package: dplyr
```

```
##
```

```
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
```

```
##
```

```
##   filter, lag
```

```
## The following objects are masked from 'package:base':
```

```
##
```

```
##   intersect, setdiff, setequal, union
```

```
## Loading required package: ggplot2
```

```
## Loading required package: knitr
```

```
## Loading required package: rmarkdown
```

```
## Loading required package: DBI
```

```
## Loading required package: tinytex
```

```
## Loading required package: devtools
```

```
## Loading required package: usethis
```

```
##      tidyr      dplyr    ggplot2    knitr rmarkdown      DBI    tinytex  devtools
##      TRUE      TRUE      TRUE      TRUE     TRUE      TRUE     TRUE      TRUE
```

## This is a level 1 header

### R Markdown

#### This is a level 3 header

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>.

Here is a link to [GOOGLE](#)

Here is a word in **bold** and another word in **bold**.

Here is a word in *italics* and another word in *italics*.

When we compile our document, we are using the **rmarkdown** package.

Here are some example R commands:

```
2+2
mean(c(1,2,3,4,5))
```

Here is an example of a non-numbered list:

- Breakfast
  - food
    - \* eggs
    - \* toast
    - \* bacon
  - drink
    - \* apple juice
- Lunch
  - taco
- Dinner
  - baked chicken

- broccoli
- rice

Here is an example of a numbered list:

1. Breakfast
  - a. food
    - i. eggs
    - ii. toast
    - iii. bacon
  - b. drink
    - i. apple juice
2. Lunch
  - a. taco
3. Dinner
  - a. baked chicken
  - b. broccoli
  - c. rice

Here is an example of a blockquote:

This is a block quote. This paragraph has two lines.

1. This is a list inside a block quote.
2. Second item.

Here is an example of a nested blockquote:

This is a block quote. This paragraph has two lines.

This text is nested

Here is an example of code in a blockquote:

```
2+2
mean(c(1,2,3,4,5))
```

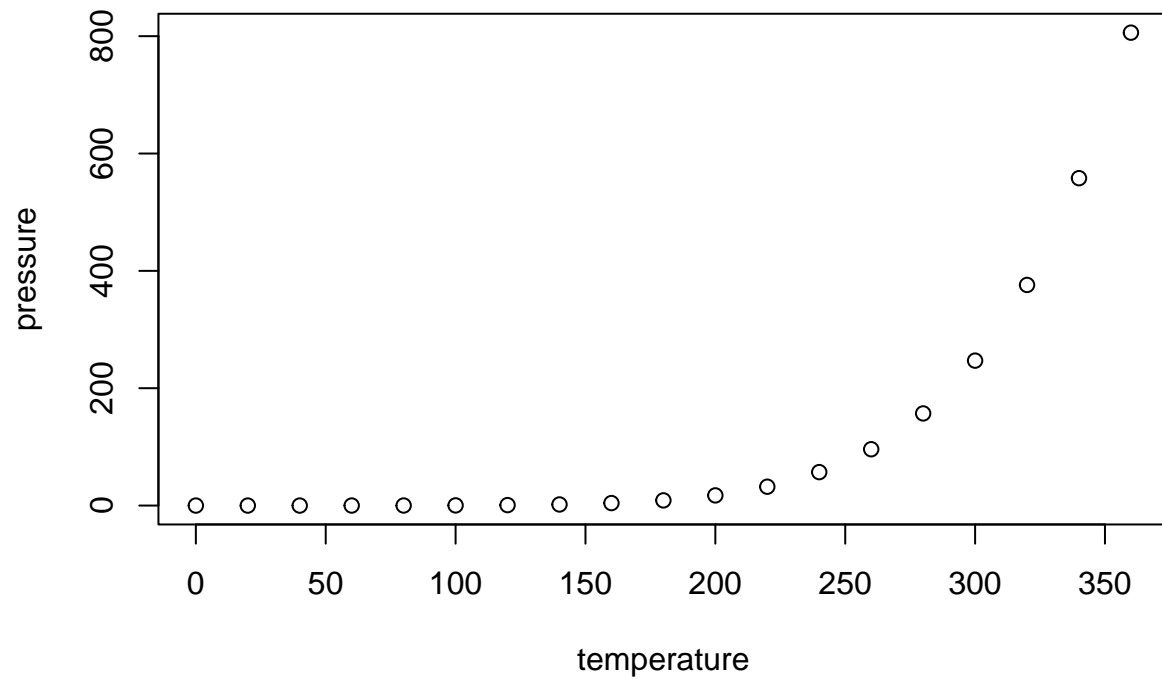
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

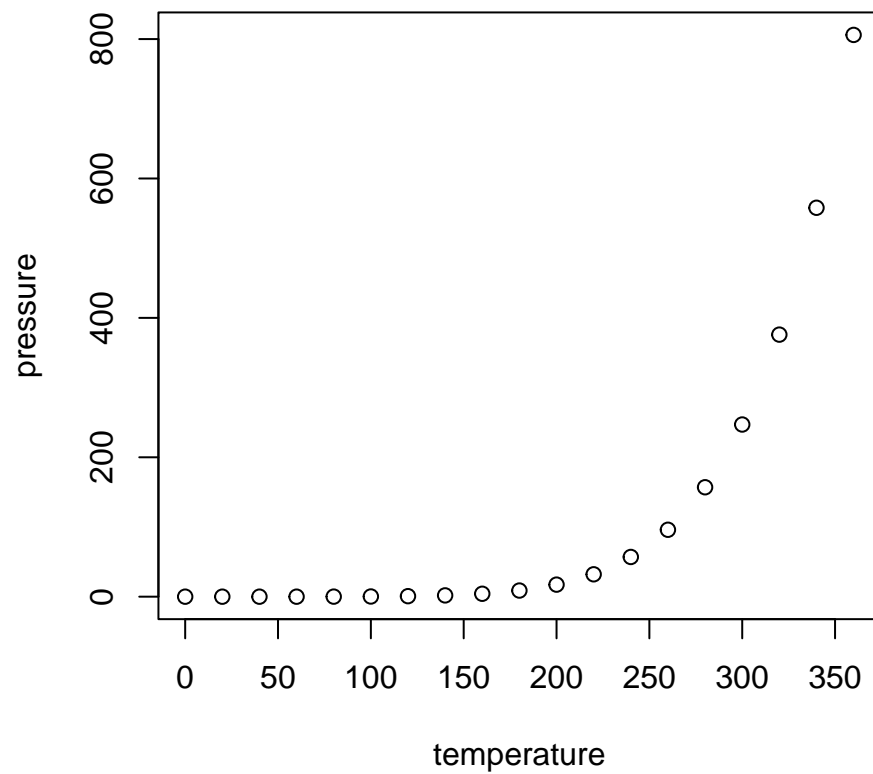
```
##      speed      dist
##  Min.   : 4.0    Min.   :  2.00
##  1st Qu.:12.0    1st Qu.: 26.00
##  Median :15.0    Median : 36.00
##  Mean   :15.4    Mean   : 42.98
##  3rd Qu.:19.0    3rd Qu.: 56.00
##  Max.   :25.0    Max.   :120.00
```

## 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.



## Insert Tables

```
knitr::kable(head(cars),
               caption = "Top 6 Rows of Cars Dataset")
```

Table 1: Top 6 Rows of Cars Dataset

speed	dist
4	2
4	10
7	4
7	22
8	16
9	10

## Insert Equation

$$Y = \beta_0 + \beta_1 x$$