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 the are not, then load them into the R se

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))
```

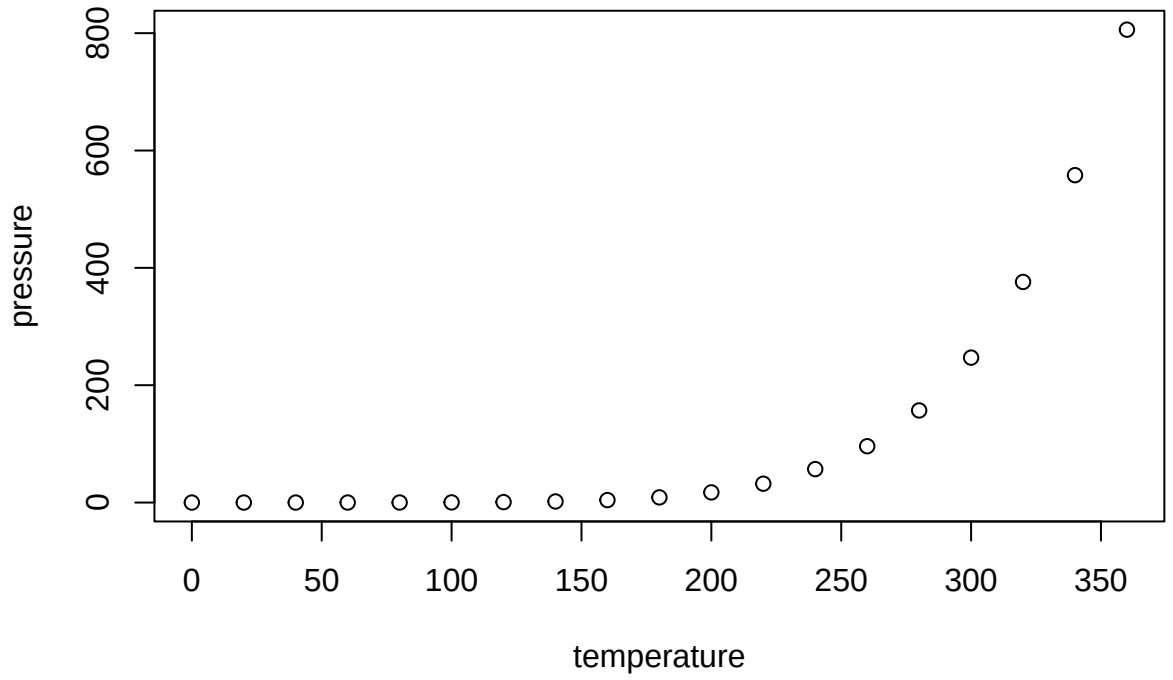
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

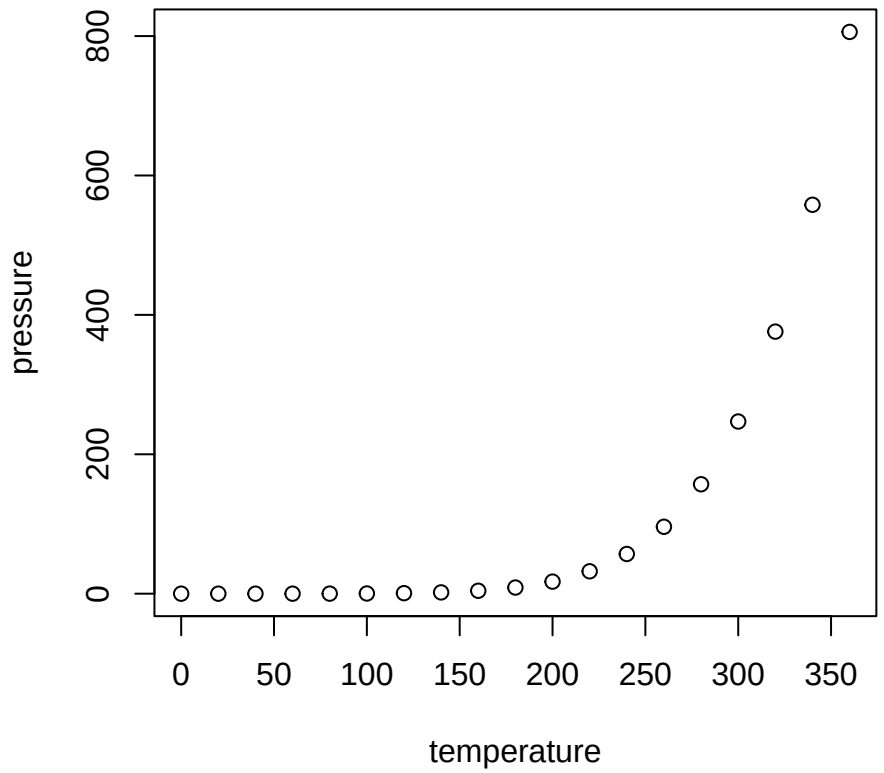
```
##      speed           dist       
##  Min.   : 4.0   Min.   :  2.00  
##  1st Qu.:12.0   1st Qu.: 26.00  
##  Median :15.0   Median : 36.00  
##  Mean   :15.4   Mean   : 42.98  
##  3rd Qu.:19.0   3rd Qu.: 56.00  
##  Max.   :25.0   Max.   :120.00
```

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

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

Insert Images

Here is an image inserted

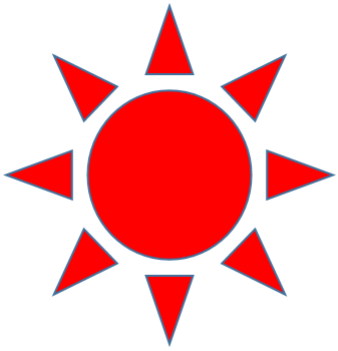


Figure 1: sunstar

Insert an Animated GIF and Video

> Videos and animated GIFs only work in HTML format using this approach.To embed videos and animated GIFs in other formats like word and pdf, check out the **vebmedr R package.**

Insert text with some footnotes

Here is a footnote reference [1] and another [2]

Here is an inline footnote [3]

[1] Here is the footnote.
[2] Here's a footnore with multiple blocks.
[3] Inline notes are easier to write, since you don't have to pick an identifier and move down to type the note.