# 01_intro_to_Rmd_U_Chowdhury

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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.

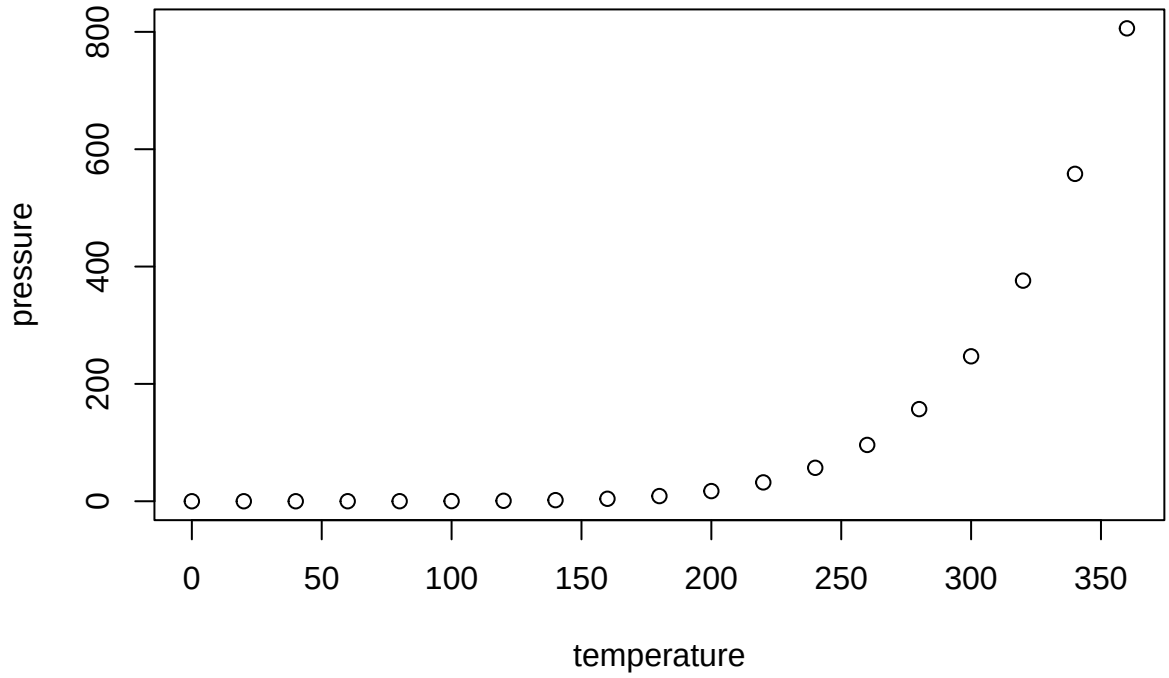
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      speed           dist       
##  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.

```
#Some arithmetic expression
8+3
```

```
## [1] 11
```

```
log(2)
```

```
## [1] 0.6931472
```

```
t=((121/3)*(6*3))/(pi)
t
```

```
## [1] 231.093
```

```
#create X & Y
X= 14+ 17
X
```

```
## [1] 31
```

```r
Y= log(20)
Y
```

```
## [1] 2.995732
```

```r
#Calculation
z=X+ Y ; z
```

```
## [1] 33.99573
```

```r
s=z+t ; s
```

```
## [1] 265.0887
```

```r
#define and return vectors a and b
a=c(4.1, 4.9, 7.8, 9.9); a
```

```
## [1] 4.1 4.9 7.8 9.9
```

```r
b= 2*a; b
```

```
## [1]  8.2  9.8 15.6 19.8
```

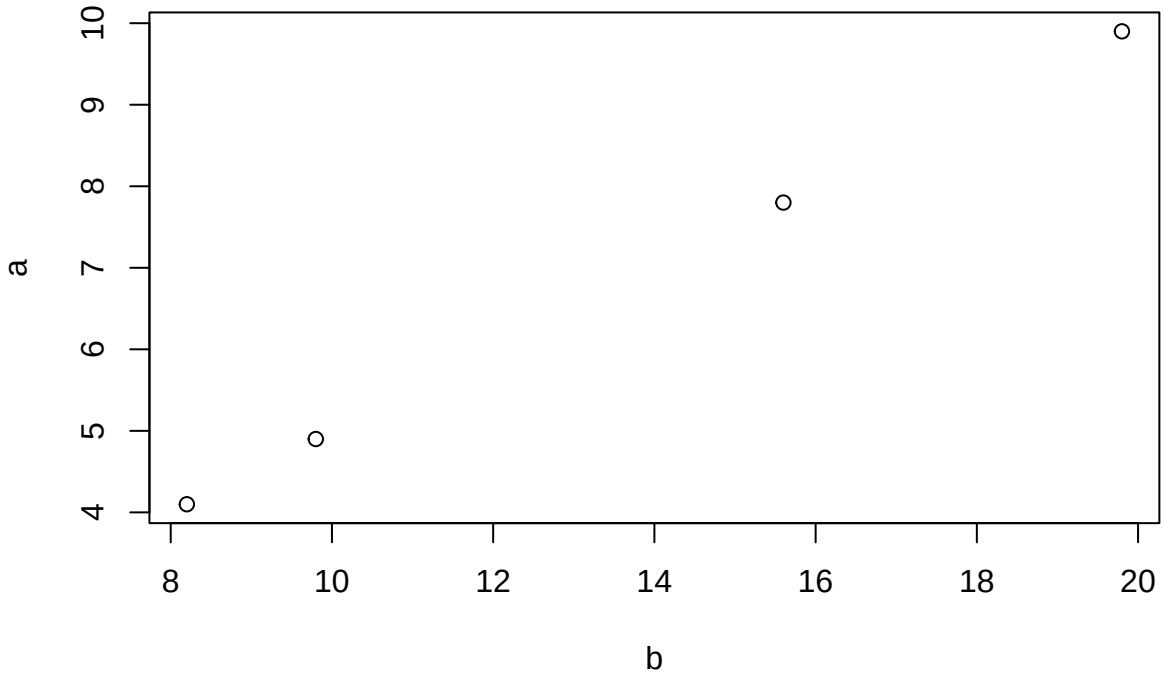
```r
#calculate mean and standard deviation
mean(a)
```

```
## [1] 6.675
```

```r
sd(b)
```

```
## [1] 5.347585
```

```r
#plot b against a
plot(b,a)
```



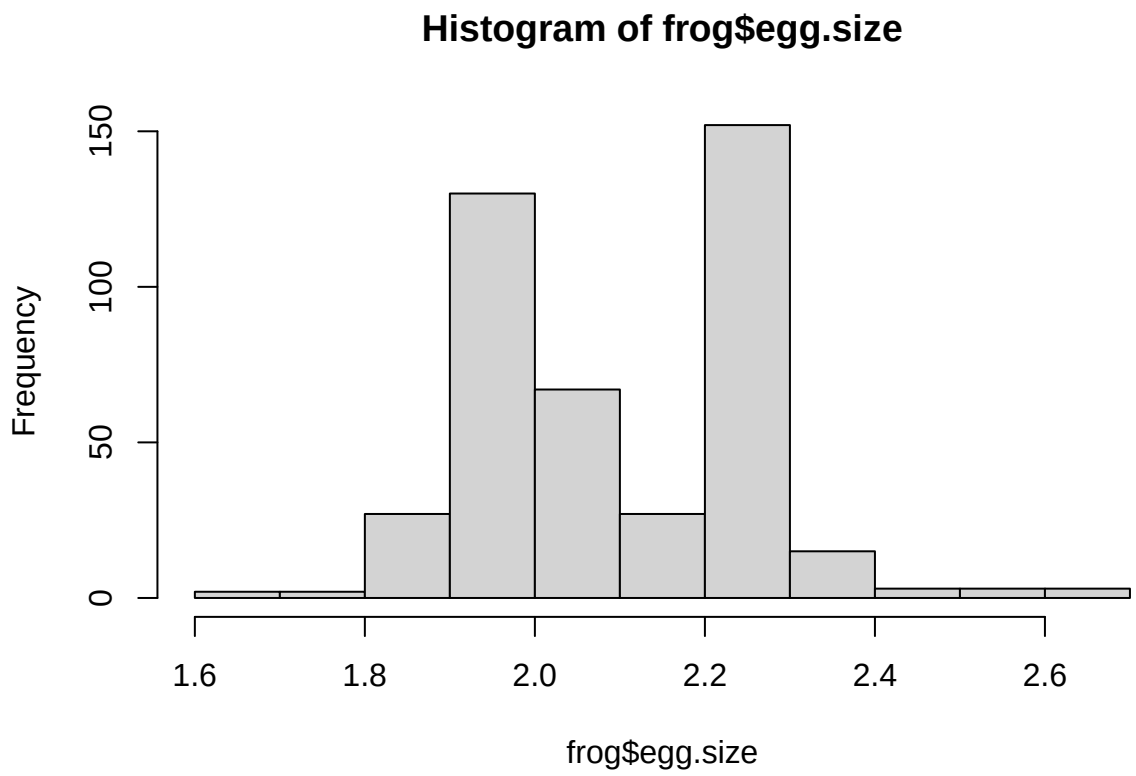

## My Profile

- 2031
- PhD in Bioinformatics + USA - State: Indiana - City : Indianapolis

```
library(oibiostat)
data(frog)
mean(frog$egg.size)
```

```
## [1] 2.114216
```

```
hist(frog$egg.size)
```



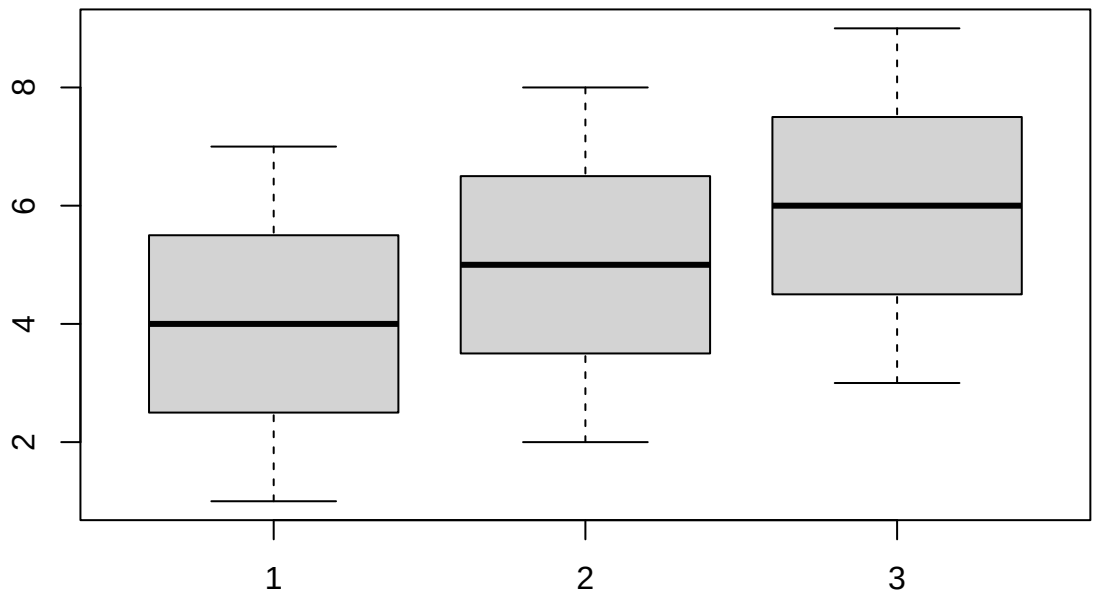

```
median(frog$egg.size)
```

```
## [1] 2.089296
```

```
sample.data = matrix(1:9, nrow=3, byrow=T)
save(sample.data, file = "sample_of_data.Rdata")
rm(list = ls())
```

```
load("sample_of_data.Rdata")

boxplot(sample.data)
```



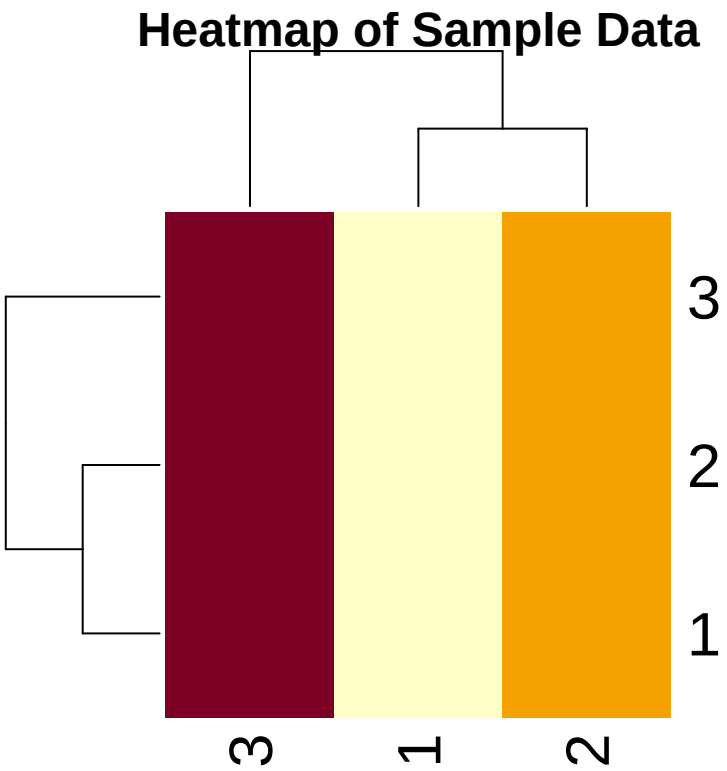

```
load("sample_of_data.Rdata")


View(sample.data)
```

```
print(sample.data)
```

```
##      [,1] [,2] [,3]
## [1,]    1    2    3
## [2,]    4    5    6
## [3,]    7    8    9
```

```
heatmap(sample.data, main = "Heatmap of Sample Data")
```


Heatmap of Sample Data
3
2
1
3
1
2