

# MY FIRST RMARKDOWN

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## UNDERSTANDING R MARKDOWN

R Markdown provides a unified authoring framework for data science, combining your codes, its results, and your prose commentary.

R Markdown documents are fully producible and support dozens of outputs like PDF, Word files, slide shows and more.

### **R Markdown files are designed for:**

- For communicating to decision makers who wants to focus on the conclusion, not code behind the analysis.
- For collaborating with other data scientist who are interested in both your conclusions and how you reached them.

## DATA TYPES

- Float data
- Numerical data
- Strings
- File
- Integers
- Boolean etc

### **FLOAT DATA TYPE**

The FLOAT data type stores double-precision floating-point numbers with up to 17 significant digits

Float is a shortened term for "floating point"

Float= real numbers with decimal points

A float is a data type composed of a number that is not an integer, because it includes a fraction represented in decimal format.

### **Types of float data in R.**

1. Float: Sometimes its called "single-precision floating point"
2. double: Sometimes its called "double-precision floating point"

## Example of float data type

```
numberOfPeople = 6
amountOfMoney = 13423
amountForEachPerson = amountOfMoney/numberOfPeople
```

```
NumberOfApple = 10
NumberOfChildren = 6
EachChildGets = NumberOfApple/NumberOfChildren
```

You can cast your data from integer/numeric to oat using `fl()` (you can also cast a float to a numeric via `dbl()`):

```
x = matrix(1:9 , 3)
x
```

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

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

```
s= matrix(1:9,3)
##      [,1] [,2] [,3]
## [1, ]    1    4    7
## [2, ]    2    5    8
## [3, ]    3    6    9
```

To create a float32 object, use `float::float32()`:

```
Data = 1:3
```

```
x= matrix(1:8)
## # Afloat32 vector 3
## [1] 1.401298e-45 2.802597e-45 4.203895e-45
```

```
rights.csv <- read.csv("C:/Users/UHRC-DGF01/Desktop/rights.csv.csv")
summary(rights.csv)
```

```
## i..Regional.Office      Rec.M      Rec.F      Reg.M
## Length:11      Min.   : 88.0   Min.   : 50.0   Min.   : 42.0
## Class :character 1st Qu.: 141.5   1st Qu.: 117.0   1st Qu.: 59.0
## Mode  :character Median : 158.0   Median : 130.0   Median : 95.0
```

```
##           Mean    : 376.5   Mean    : 245.5   Mean    : 190.4
##           3rd Qu.: 304.0   3rd Qu.: 150.5   3rd Qu.: 164.5
##           Max.    :2071.0   Max.    :1350.0   Max.    :1047.0
##      Reg.F      Ref.M      Ref.F
## Min.    : 22.0   Min.    : 46.0   Min.    : 14.0
## 1st Qu.: 49.5   1st Qu.: 65.0   1st Qu.: 41.5
## Median : 70.0   Median : 87.0   Median : 50.0
## Mean    :120.0   Mean    :186.2   Mean    :125.5
## 3rd Qu.: 89.0   3rd Qu.:153.0   3rd Qu.: 93.0
## Max.    :660.0   Max.    :1024.0   Max.    :690.0
```

Comments: this histogram for rights is right skewed

```
??hist
```

```
## starting httpd help server ... done
```

## Having some trouble with R.Markdown

Example

## Quartely results {.tabset.tabset-fade. tabset-pills}

```
rights.csv
```

```
##      i..Regional.Office Rec.M Rec.F Reg.M Reg.F Ref.M Ref.F
## 1          Arua      250   120    85    70   165    50
## 2      Central      460   130   230    85   230    45
## 3          Gulu      200   100   112    55    88    45
## 4      Masaka       88    50    42    36    46    14
## 5      Mbarara      153   143    66    22    87   121
## 6      Moroto      131   115    51    60    80    55
## 7          Jinja      121   119    52    81    69    38
## 8      Soroti      152   135    95   114    57    21
## 9      Fort Portal  358   158   217    93   141    65
## 10         Hoima      158   280    97    44    61   236
## 11         Total  2071  1350  1047   660  1024   690
```

```
rights.csv
```

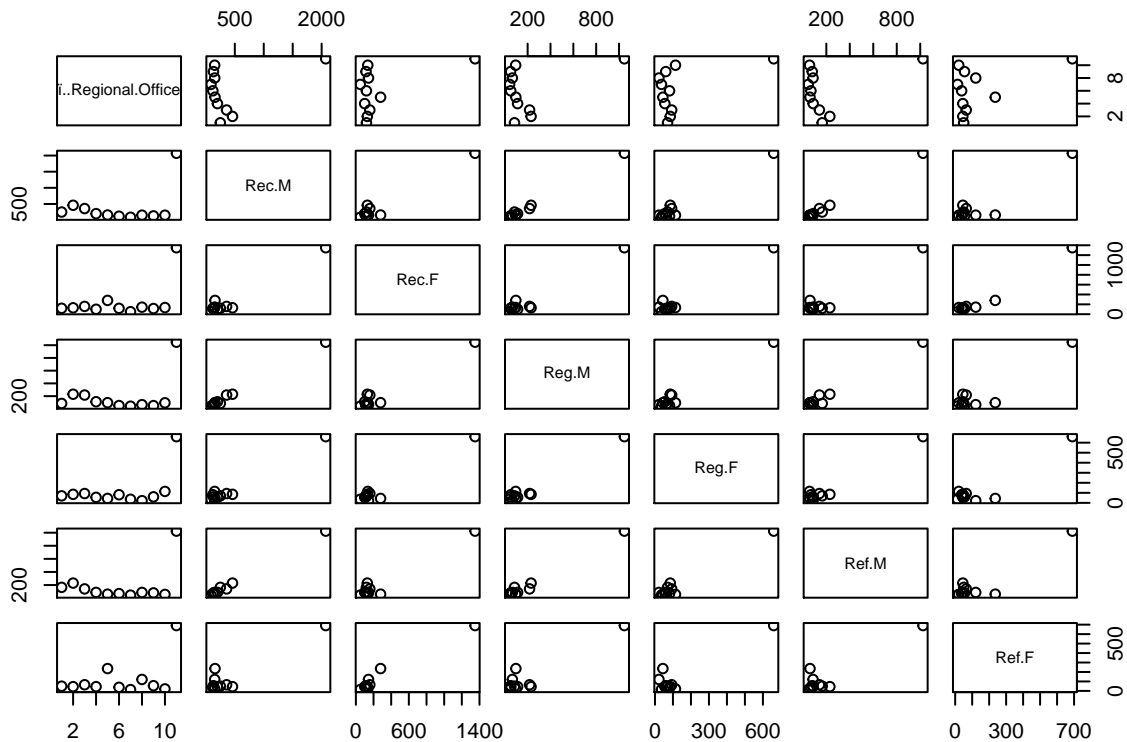
```
##      i..Regional.Office Rec.M Rec.F Reg.M Reg.F Ref.M Ref.F
## 1          Arua      250   120    85    70   165    50
## 2      Central      460   130   230    85   230    45
## 3          Gulu      200   100   112    55    88    45
## 4      Masaka       88    50    42    36    46    14
## 5      Mbarara      153   143    66    22    87   121
## 6      Moroto      131   115    51    60    80    55
## 7          Jinja      121   119    52    81    69    38
```

```
## 8          Soroti  152  135   95  114   57   21
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## 8          Soroti     152   135   95  114   57   21
## 9      Fort Portal   358   158  217   93  141   65
## 10         Hoima     158   280   97   44   61  236
## 11         Total 2071 1350 1047  660 1024  690
```

```
plot(rights.csv)
```



```
library(leaflet)
```

How best can we deal with the error if they are TRUE just like the previous one.