# crossTable

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## crossTable

Creates a contingency table of 2 variables. Percentage are optionals by row or column. It can provides an optional statistic (fisher or chisquare).

NB: rossTable provides a better view of results if data are ordered factors.

### Recoding some data to ordered factors

```
data(Tiramisu)
DF <- Tiramisu
DF %<>%
  orderFactors(c(1, 5, 7:9, 11, 13:21) , values = c(1,0), labels = c("YES", "NO")) %>%
  orderFactors(sex, values = c("males", "females"), labels = c("Males", "Females"))
```

### crossTable ill - sex

```
ret <- crossTable(DF, var1="ill", var2="tira")
ret
```

```
##   tira / ill YES  NO Total
## 1        YES  94  27   121
## 2         NO   7 158   165
## 3      Total 101 185   286
```

```
kable(ret, align="r")
```

| tira / ill | YES | NO | Total |
|---|---|---|---|
| YES | 94 | 27 | 121 |
| NO | 7 | 158 | 165 |
| Total | 101 | 185 | 286 |

### crossTable ill - sex with column percentage and chi2 stat

```
ret <- crossTable(DF, "ill", "sex", "col", "chi2")
ret
```

```
##      sex / ill    YES     NO  Total
## 1        Males     50    102    152
## 2            %  48.54  54.26  52.23
## 3      Females     53     86    139
## 4            %  51.46  45.74  47.77
## 5        Total    103    188    291
## 6            % 100.00 100.00 100.00
## 7            -      -      -      -
## 8 Pearson CHI2 0.8701     Pr  0.351
```

```
kable(ret, align="r", caption = "% en colonne")
```

Table 2: % en colonne

| sex / ill | YES | NO | Total |
|---|---|---|---|
| Males | 50 | 102 | 152 |
| % | 48.54 | 54.26 | 52.23 |
| Females | 53 | 86 | 139 |
| % | 51.46 | 45.74 | 47.77 |
| Total | 103 | 188 | 291 |
| % | 100.00 | 100.00 | 100.00 |
| - | - | - | - |
| Pearson CHI2 | 0.8701 | Pr | 0.351 |

### CrossTable ill - sex with row percentage and Fisher stat

NB: All variales are unquoted

```
ret <- crossTable(DF, ill, sex, row, fisher)
ret
```

```
##        sex / ill   YES     %  NO     % Total   %
## 1          Males    50 32.89 102 67.11   152 100
## 2        Females    53 38.13  86 61.87   139 100
## 3          Total   103 35.40 188 64.60   291 100
## 4              -     -     -   -     -     -   -
## 5 Fisher's exact 0.391
```

```
kable(ret, align="r", caption = "% en ligne")
```

Table 3: % en ligne

| sex / ill | YES | % | NO | % | Total | % |
|---|---|---|---|---|---|---|
| Males | 50 | 32.89 | 102 | 67.11 | 152 | 100 |
| Females | 53 | 38.13 | 86 | 61.87 | 139 | 100 |
| Total | 103 | 35.40 | 188 | 64.60 | 291 | 100 |
| - | - | - | - | - | - | - |
| Fisher's exact | 0.391 | | | | | |

### CrossTable ill - sex with column and row percentages and no stat

NB: All variales are unquoted

```
ret <- crossTable(DF, ill, sex, both)
ret
```

```
##   sex / ill    YES     %     NO     %  Total      %
## 1     Males     50 32.89    102 67.11    152 100.00
## 2         %  48.54        54.26
## 3   Females     53 38.13     86 61.87    139 100.00
## 4         %  51.46        45.74
## 5     Total    103 35.40    188 64.60    291 100.00
## 6         % 100.00       100.00       100.00
```

```
kable(ret, align="r", caption = "% rows and columns")
```

Table 4: % rows and columns

| sex / ill | YES | % | NO | % | Total | % |
|---|---|---|---|---|---|---|
| Males | 50 | 32.89 | 102 | 67.11 | 152 | 100.00 |
| % | 48.54 | | 54.26 | | | |
| Females | 53 | 38.13 | 86 | 61.87 | 139 | 100.00 |
| % | 51.46 | | 45.74 | | | |
| Total | 103 | 35.40 | 188 | 64.60 | 291 | 100.00 |
| % | 100.00 | | 100.00 | | 100.00 | |

### CrossTable beer - sex with column and row percentages and Chi2 stat

NB: All variales are unquoted

```
ret <- crossTable(DF, beer, sex, both, chi2)
ret
```

```
##     sex / beer     YES     %     NO     %  Total      %
## 1        Males      84 59.15     58 40.85    142 100.00
## 2            %   79.25        35.15
## 3      Females      22 17.05    107 82.95    129 100.00
## 4            %   20.75        64.85
## 5        Total     106 39.11    165 60.89    271 100.00
## 6            %  100.00       100.00       100.00
## 7            -       -     -      -     -       -      -
## 8 Pearson CHI2 50.3078    Pr      0
```

```
kable(ret, align="r", caption = "% rows and columns")
```

Table 5: % rows and columns

| sex / beer | YES | % | NO | % | Total | % |
|---|---|---|---|---|---|---|
| Males | 84 | 59.15 | 58 | 40.85 | 142 | 100.00 |
| % | 79.25 | | 35.15 | | | |
| Females | 22 | 17.05 | 107 | 82.95 | 129 | 100.00 |
| % | 20.75 | | 64.85 | | | |
| Total | 106 | 39.11 | 165 | 60.89 | 271 | 100.00 |
| % | 100.00 | | 100.00 | | 100.00 | |
| - | - | - | - | - | - | - |
| Pearson CHI2 | 50.3078 | Pr | 0 | | | |