

# crossTable

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## crossTable

Creates a contingency table of 2 variables. Percentage are optional 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 - tira

```
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 variables 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 variables 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 variables 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			