HM_FINAL

```r
data <-
read.csv('/home/sedreh/ITMO/semester2/Statistic-R/2/bosson.csv',
sep = ";")
head(data)

##   country gender aneurysm    bmi risk
## 1 Vietnam      M       21 21.094    0
## 2 Vietnam      M       27 19.031    0
## 3 Vietnam      M       28 20.313    0
## 4 Vietnam      F       33 17.778    0
## 5  France      F       34 21.604    0
## 6 Vietnam      F       35 21.096    0

calc_subdata <- function(data, row_s, col_s){
data <- data[row_s,col_s]
result = list()
for (col_name in names(data)) {
  col_value <- data[[col_name]]
  if(class(col_value) == 'numeric' | class(col_value) ==
'integer') {
    statistics <- list(sum=sum(col_value), mean=mean(col_value))
    result[[col_name]] <- statistics
  } else {
     result[[col_name]] <- table(col_value)
    }
}
result
}
calc_subdata(data, row_s = 1:nrow(data), col_s = 1:ncol(data))

## $country
## col_value
##  France Vietnam
##      99     110
##
## $gender
## col_value
##   F   M
##  51 158
##
## $aneurysm
## $aneurysm$sum
## [1] 9942
##
## $aneurysm$mean
## [1] 47.56938
```

```
##
##
## $bmi
## $bmi$sum
## [1] 4756.988
##
## $bmi$mean
## [1] 22.76071
##
##
## $risk
## $risk$sum
## [1] 290
##
## $risk$mean
## [1] 1.38756
```

```
data("infert")
calc_subdata(infert, row_s = 1:nrow(infert), col_s =
1:ncol(infert))
```

```
## $education
## col_value
##  0-5yrs 6-11yrs 12+ yrs
##      12     120     116
##
## $age
## $age$sum
## [1] 7813
##
## $age$mean
## [1] 31.50403
##
##
## $parity
## $parity$sum
## [1] 519
##
## $parity$mean
## [1] 2.092742
##
##
## $induced
## $induced$sum
## [1] 142
##
## $induced$mean
## [1] 0.5725806
##
##
## $case
```

```
## $case$sum
## [1] 83
##
## $case$mean
## [1] 0.3346774
##
##
## $spontaneous
## $spontaneous$sum
## [1] 143
##
## $spontaneous$mean
## [1] 0.5766129
##
##
## $stratum
## $stratum$sum
## [1] 10384
##
## $stratum$mean
## [1] 41.87097
##
##
## $pooled.stratum
## $pooled.stratum$sum
## [1] 8328
##
## $pooled.stratum$mean
## [1] 33.58065
```

```r
data("morley")
calc_subdata(morley, row_s = 1:nrow(morley), col_s =
1:ncol(morley))
```

```
## $Expt
## $Expt$sum
## [1] 300
##
## $Expt$mean
## [1] 3
##
##
## $Run
## $Run$sum
## [1] 1050
##
## $Run$mean
## [1] 10.5
##
##
## $Speed
```

```
## $Speed$sum
## [1] 85240
##
## $Speed$mean
## [1] 852.4
```