Statistics Project, Rajdip Banerjee(316)

```r
#create  a data frame
data<- data.frame(
  Name = c("Suprodip Charkarborty",
           "Anubhab Roy",
           "Sohan Chakravartty",
           "Bapon Ghosh",
           "Ritam Das",
           "Suman Chandra Mondal",
           "Shuvadip Das",
           "Sohel Munshi",
           "Kiranmay Dolui",
           "Sudipta Manna",
           "Arnab Ghose",
           "Manas Mondal",
           "MD Frioj Molla",
           "Sumit Sing",
           "Raktim Day",
           "Rajdip Banerjee"
  ),
  Roll_no. = c(301,
               302,
               303,
               304,
               326,
               351,
               309,
               358,
               322,
               308,
               334,
               311,
               343,
               347,
               356,
               316
  ),
  First_Sem_Marks = c(8.77,
                      8.85,
                      8.31,
                      8.01,
                      8.15,
                      8.55,
                      8.22,
                      8.66,
                      8.22,
```

```
                    8.96,
                    8.66,
                    8.66,
                    8.363,
                    8.08,
                    8.23,
                    8.02
),
Total_HS_Marks  = c(442,
                    429 ,
                    359,
                    389,
                    452,
                    336,
                    563,
                    452,
                    452,
                    459,
                    452,
                    456,
                    456,
                    433,
                    452,
                    399
),
Math_HS_Marks = c(96,
                  91,
                  92,
                  91,
                  99,
                  99,
                  96,
                  85,
                  85,
                  56,
                  86,
                  86,
                  96,
                  96,
                  96,
                  87
),
Computer_Science_HS_Marks= c(98,
                             90,
                             94,
                             99,
                             88,
                             85,
                             85,
                             100,
```

```
                                100,
                                85,
                                96,
                                96,
                                96,
                                96,
                                100,
                                93
  )
)

#Print the data frame
print(data)
```

```
##                     Name Roll_no. First_Sem_Marks Total_HS_Marks
Math_HS_Marks
## 1  Suprodip Charkarborty      301           8.770            442
96
## 2            Anubhab Roy      302           8.850            429
91
## 3     Sohan Chakravartty      303           8.310            359
92
## 4            Bapon Ghosh      304           8.010            389
91
## 5              Ritam Das      326           8.150            452
99
## 6   Suman Chandra Mondal      351           8.550            336
99
## 7           Shuvadip Das      309           8.220            563
96
## 8           Sohel Munshi      358           8.660            452
85
## 9         Kiranmay Dolui      322           8.220            452
85
## 10         Sudipta Manna      308           8.960            459
56
## 11           Arnab Ghose      334           8.660            452
86
## 12          Manas Mondal      311           8.660            456
86
## 13        MD Frioj Molla      343           8.363            456
96
## 14            Sumit Sing      347           8.080            433
96
## 15            Raktim Day      356           8.230            452
96
## 16       Rajdip Banerjee      316           8.020            399
87
##    Computer_Science_HS_Marks
## 1                         98
```

```
## 2                           90
## 3                           94
## 4                           99
## 5                           88
## 6                           85
## 7                           85
## 8                          100
## 9                          100
## 10                          85
## 11                          96
## 12                          96
## 13                          96
## 14                          96
## 15                         100
## 16                          93
```

```
x1 <- data$First_Sem_Marks
x2 <- data$Total_HS_Marks
x3 <- data$Math_HS_Marks
x4 <- data$Computer_Science_HS_Marks
#Summary statistic
summary(data$First_Sem_Marks)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   8.010   8.203   8.336   8.420   8.660   8.960
```

```
summary(data$Total_HS_Marks)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   336.0   421.5   452.0   436.3   453.0   563.0
```

```
summary(data$Math_HS_Marks)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   56.00   86.00   91.50   89.81   96.00   99.00
```

```
summary(data$Computer_Science_HS_Marks)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   85.00   89.50   96.00   93.81   98.25  100.00
```

```
fn_mode <- function(x){
  unique_x <- unique(x)
  tabulate_x <- tabulate(match(x, unique_x))
  unique_x[tabulate_x == max(tabulate_x)]
}
fn_mode(x1)
```

```
## [1] 8.66
```

```
fn_mode(x2)
```

```
## [1] 452
```

```
fn_mode(x3)
```

```
## [1] 96
```

```
fn_mode(x4)
```

```
## [1] 96
```

```
data[16,]
```

```
##               Name Roll_no. First_Sem_Marks Total_HS_Marks Math_HS_Marks
## 16 Rajdip Banerjee      316            8.02            399            87
##    Computer_Science_HS_Marks
## 16                        93
```