Week 3 Assignment

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```
#I am grabbing my data from my GitHub Repositories
library(RCurl)
```

```
## Loading required package: bitops
```

```
ReadPopulation <- getURL("https://raw.githubusercontent.com/DanielBrooks39/IS607/master/Week%203/popula
Population <- read.csv(text = ReadPopulation)

ReadTBInformation <- getURL("https://raw.githubusercontent.com/DanielBrooks39/IS607/master/Week%203/tb_
TBInformation <- read.csv(text = ReadTBInformation, header = FALSE)

#I am giving names to the columns of the data frame
names(TBInformation) <- c("Country", "Year", "Sex", "Child", "Adult", "Elderly")

#The file had some (-1) in it so I converted anything that was negative to 0.
TBInformation$Child <- replace(TBInformation$Child, TBInformation$Child <= 0, 0)
TBInformation$Adult <- replace(TBInformation$Adult, TBInformation$Adult <= 0, 0)
TBInformation$Elderly <- replace(TBInformation$Elderly, TBInformation$Elderly <= 0, 0)
```

```
#Subsetted the data by sex. One for Males and one for Females
Males <- subset(TBInformation, Sex == "male")
Females <- Males <- subset(TBInformation, Sex == "female")

#Found the total number of cases across all the age ranges
#that were taken (Child, Adult, and Elderly)
TotalCasesMale <- Males$Child + Males$Adult + Males$Elderly
TotalCasesFemale <- Females$Child + Females$Adult + Females$Elderly

#Give names to the subsetted data frame
Males_Country <- as.vector(as.character(Males$`Country`))
Males_Year <- as.vector(as.numeric(Males$`Year`))
Females_Country <- as.vector(as.character(Females$`Country`))
Females_Year <- as.vector(as.numeric(Females$`Year`))

#bind the the data frame that was subsetted by sex back together
#with the total cases added to it
Males_Info <- cbind.data.frame(Males_Country, Males_Year, TotalCasesMale, Population$population)
Females_Info <- cbind.data.frame(Females_Country, Females_Year, TotalCasesFemale, Population$population

#Give names to the new data frame
names(Males_Info) <- c("Country", "Year", "Cases", "Population")
names(Females_Info) <- c("Country", "Year", "Cases", "Population")

#Calcluate the Rate at which TB spreads (Total Cases/Total Population)
#Multiply by 100 to make it a percentage
Male_Rate <- (Males_Info$Cases / (Males_Info$Population/10000))
```

```r
Female_Rate <- (Females_Info$Cases / (Females_Info$Population/10000))

#Bind the COuntries, Year and Rate all together
Males_Info <- cbind.data.frame(Males_Info$Country, Males_Info$Year, Male_Rate)
Females_Info <- cbind.data.frame(Females_Info$Country, Females_Info$Year, Female_Rate)

#Give names to the Newly bound data frame
names(Males_Info) <- c("Country", "Year", "Rate (per 10,000 ppl)")
names(Females_Info) <- c("Country", "Year", "Rate (per 10,000 ppl)")

#Show the top and bottom few records in the Males and Female data frames
head(Males_Info, n = 50L)
```

```
##        Country Year Rate (per 10,000 ppl)
## 1  Afghanistan 1995            0.00000000
## 2  Afghanistan 1996            0.00000000
## 3  Afghanistan 1997            0.08426304
## 4  Afghanistan 1998            0.34650882
## 5  Afghanistan 1999            0.66531065
## 6  Afghanistan 2000            0.14607542
## 7  Afghanistan 2001            3.00517957
## 8  Afghanistan 2002            7.38097633
## 9  Afghanistan 2003            5.79278363
## 10 Afghanistan 2004           35.28364909
## 11 Afghanistan 2005            0.42114804
## 12 Afghanistan 2006            8.44410774
## 13 Afghanistan 2007           14.54285343
## 14 Afghanistan 2008            8.27823948
## 15 Afghanistan 2009            6.12796873
## 16 Afghanistan 2010           26.56230205
## 17 Afghanistan 2011           14.26289308
## 18 Afghanistan 2012            6.96740183
## 19 Afghanistan 2013            0.01413297
## 20     Algeria 1995            0.00000000
## 21     Algeria 1996            0.00000000
## 22     Algeria 1997           11.52305364
## 23     Algeria 1998            0.00000000
## 24     Algeria 1999            1.22727418
## 25     Algeria 2000            0.93162696
## 26     Algeria 2001           47.75609602
## 27     Algeria 2002            4.60518383
## 28     Algeria 2003            2.61404408
## 29     Algeria 2004            0.50025833
## 30     Algeria 2005            0.58204054
## 31     Algeria 2006            0.49940563
## 32     Algeria 2007            6.30927527
## 33     Algeria 2008            0.40337823
## 34     Algeria 2009            1.90025301
## 35     Algeria 2010            3.25325042
## 36     Algeria 2011            3.86874196
## 37     Algeria 2012            3.68450013
## 38     Algeria 2013            5.04118878
## 39      Angola 1995            0.02281848
```

```
## 40      Angola 1996            0.19354750
## 41      Angola 1997            0.66481058
## 42      Angola 1998            1.74531057
## 43      Angola 1999            0.77957317
## 44      Angola 2000            0.32622849
## 45      Angola 2001            2.24635541
## 46      Angola 2002            3.23436250
## 47      Angola 2003           21.20582256
## 48      Angola 2004           21.26667258
## 49      Angola 2005           58.41521156
## 50      Angola 2006           50.68461735
```

```
head(Females_Info, n = 50L)
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