Individual Assignment

Latasha Papalal 28/11/2016

Q1. Find the 2015 Cricket World Cup venue with the largest capacity.

```
install.packages("rvest")

## Installing package into '/home/ad.ilstu.edu/lna/R/x86_64-pc-linux-gnu-library/3.3'

## (as 'lib' is unspecified)

library("rvest")

## Loading required package: xml2

world_cup<- read_html("http://en.wikipedia.org/wiki/2015_Cricket_World_Cup")
venues <- html_table(html_nodes(world_cup, "table")[[5]])
venues$Capacity<-as.numeric(gsub(",","",venues$Capacity))
max <- venues[which.max(venues$Capacity),1]
max

## [1] "Melbourne Cricket Ground"</pre>
```

The 2015 Cricket World Cup venue with the largest capacity was Melbourne Cricket Ground

Q2. The American Community Survey distributes downloadable data about United States communities.

```
download.file("https://d396qusza40orc.cloudfront.net/getdata%2Fdata%2Fss06hid.csv",destfile = "MICDATA.
survey_data <- read.csv("MICDATA")
Prop_Value <- length (survey_data [which(survey_data$VAL>=24),1])
Prop_Value
## [1] 53
```

The answer to Q2 is 53

Q3. Load the Gross Domestic Product data for the 190 ranked countries.

```
rank_data <- read.csv("https://d396qusza40orc.cloudfront.net/getdata%2Fdata%2FGDP.csv ")
colnames(rank_data) <- c("CountryCode", "Ranking","NA", "Economy","Dollars")
prod_data <- read.csv("https://d396qusza40orc.cloudfront.net/getdata%2Fdata%2FEDSTATS_Country.csv")
merge_data <- merge(rank_data, prod_data, by="CountryCode")
filtermerge_data <- merge_data[-c(3, 6:10)]
filtermerge_data$Ranking<-as.numeric(gsub(",","",filtermerge_data$Ranking), na.rm="TRUE")
filtermerge_data<-subset(filtermerge_data,filtermerge_data$Ranking<191)

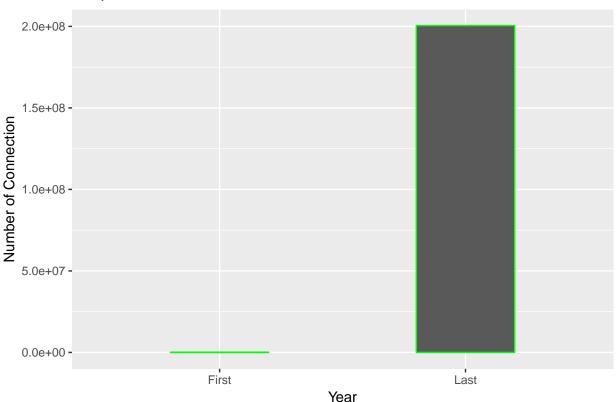
rankprod1<- mean(subset(filtermerge_data, Income.Group %in% "High income: OECD", select = c(Ranking))$R
rankprod2<- mean(subset(filtermerge_data, Income.Group %in% "High income: nonOECD", select = c(Ranking))</pre>
```

The answer to Q3 is 32.9666667 for High income: OECD and 91.9130435 for High income: nonOECD.

Q4. Create a bar chart showing the number of broadband users in China for the first and last years in the data set.

```
library(ggplot2)
china<-read.csv(file="~/IT-497/chinainet.csv")
Lastyear <- head(china, 1)
Firstyear <- tail(china,1)
Number.of.connection <- c(Lastyear$Number, Firstyear$Number)
Year <- c("Last", "First")
Tab1 <- data.frame(Year, Number.of.connection)

ggplot(data=Tab1, aes(x=Year, y=Number.of.connection)) +
   geom_bar(width=.4, stat="identity", position = "dodge", colour="green") +
   xlab("Year") + ylab("Number of Connection") + labs(title="Graph1. The number of broadband users in Ch</pre>
```



Graph1. The number of broadband users in China for the first v/s the las

Q5. Create a bar chart showing the number of tweets containing "@OhioStateFB" and the number containing "@UMichFootball".

```
install.packages("ggplot2")

## Installing package into '/home/ad.ilstu.edu/lna/R/x86_64-pc-linux-gnu-library/3.3'
## (as 'lib' is unspecified)

install.packages("stringr")

## Installing package into '/home/ad.ilstu.edu/lna/R/x86_64-pc-linux-gnu-library/3.3'
## (as 'lib' is unspecified)

library("stringr")
library("ggplot2")

ncaa<-read.csv(file="-/IT-497/ncaa.txt", stringsAsFactors = F, sep = ";", colClasses = "character", heacoc<- str_count(ncaa, ignore.case("@OhioStateFB"))

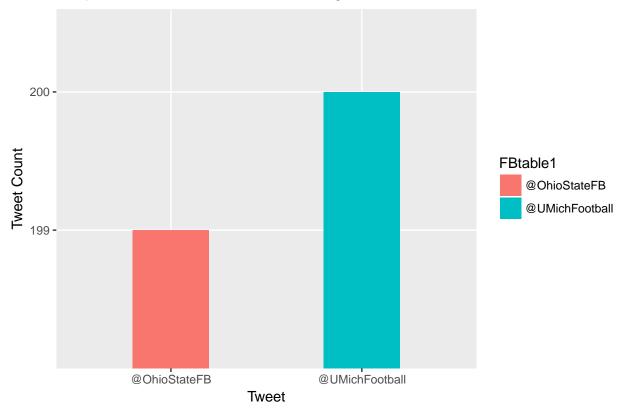
## Please use (fixed|coll|regex)(x, ignore_case = TRUE) instead of ignore.case(x)</pre>
```

```
mc<- str_count(ncaa, ignore.case("@UMichFootball"))

## Please use (fixed|coll|regex)(x, ignore_case = TRUE) instead of ignore.case(x)

FBtable<- c(oc,mc)
FBtable1<- c("@OhioStateFB", "@UMichFootball")
tb4<-cbind(FBtable1, FBtable)
tb5<- data.frame(tb4)
ggplot(tb5, aes(x=FBtable1, y=FBtable,fill=FBtable1)) +
geom_bar(width=.4, stat="identity", position = position_stack()) + xlab("Tweet") + ylab("Tweet Count")</pre>
```

Graph2. Number of tweets containing @OhioStateFB vs @UMichFootball



Q6. Recreate the Percent of Primary Care Physicians Selecting Immunization Menu Measure without Exclusion bar chart.

```
install.packages("rvest")

## Installing package into '/home/ad.ilstu.edu/lna/R/x86_64-pc-linux-gnu-library/3.3'
## (as 'lib' is unspecified)
```

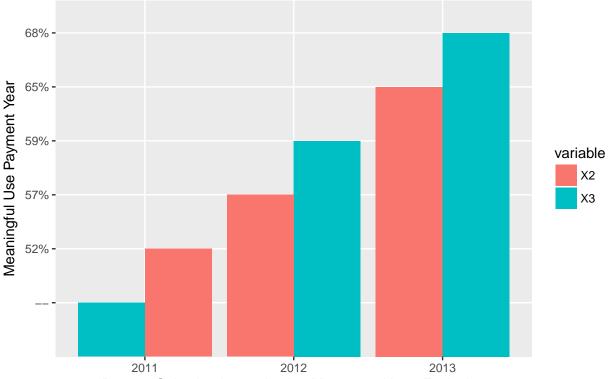
```
install.packages("ggplot2")
```

Installing package into '/home/ad.ilstu.edu/lna/R/x86_64-pc-linux-gnu-library/3.3'
(as 'lib' is unspecified)

```
library("rvest")
library("ggplot2")
library("reshape2")

imm <- read_html("https://dashboard.healthit.gov/quickstats/pages/FIG-Percent-Medicare-Eligible-Primary
imm1 <- html_table(html_nodes(imm, "table"),fill=T)
imm2<- data.frame(imm1)
imm2 <- imm2[-c(1,2), ]
df<- melt(imm2,id.vars='X1')
ggplot(df, aes(x=X1,y=value,fill=variable))+geom_bar(stat="identity",position = position_dodge())+ xlab</pre>
```

Graph3. Percent of Primary Care Physicians Selecting Immunization Menu



Percent Selecting Immunization Measure without Exclusion

Q7. Which Metropolitan area pays the highest for computer and mathematical occupations?

```
install.packages("plyr")
```

Installing package into '/home/ad.ilstu.edu/lna/R/x86_64-pc-linux-gnu-library/3.3'
(as 'lib' is unspecified)

```
## Installing package into '/home/ad.ilstu.edu/lna/R/x86_64-pc-linux-gnu-library/3.3'
## (as 'lib' is unspecified)

library(plyr)
library(rvest)

salaries<-read_html("http://www.bls.gov/oes/current/oes150000.htm")
salaries.table<-html_table(html_nodes(salaries, "table")[[10]],header=T)
salaries.df<-data.frame(salaries.table$`Hourly mean wage`, salaries.table$`Metropolitan area`)
colnames(salaries.df)<- c("Hourly Mean Wage", "Metropolitan Area")
salary.metro.high<-salaries.df$`Metropolitan Area`[which.max(salaries.df$`Hourly Mean Wage`)]
salary.metro.high[1]

## [1] San Jose-Sunnyvale-Santa Clara, CA
## 10 Levels: Atlanta-Sandy Springs-Roswell, GA ...</pre>
The answer to Q7 is San Jose-Sunnyvale-Santa Clara, CA
```

Q8. Internet users in Africa.

```
user <- read.csv(file="~/IT-497/q8.csv", stringsAsFactors = F, header = F)
internet.users</pre>
## [1] 11090000

pent.rate.af <- head(user$V2[2])
pent.rate.af

## [1] 11

pent.rate.wd <- head(user$V2[3])
pent.rate.wd
## [1] 32
```

The text of your answer should be, "The answer to Q8 is ,11090000, 11 %, and 32%.

Extra Credit

```
install.packages("quantmod")

## Installing package into '/home/ad.ilstu.edu/lna/R/x86_64-pc-linux-gnu-library/3.3'
## (as 'lib' is unspecified)
```

```
install.packages("lubridate")
## Installing package into '/home/ad.ilstu.edu/lna/R/x86_64-pc-linux-gnu-library/3.3'
## (as 'lib' is unspecified)
library(quantmod)
## Loading required package: xts
## Loading required package: zoo
##
## Attaching package: 'zoo'
## The following objects are masked from 'package:base':
##
##
       as.Date, as.Date.numeric
## Loading required package: TTR
## Version 0.4-0 included new data defaults. See ?getSymbols.
library(lubridate)
## Attaching package: 'lubridate'
## The following object is masked from 'package:plyr':
##
##
       here
## The following object is masked from 'package:base':
##
##
       date
amazon<- getSymbols("AMZN",auto.assign=F)</pre>
##
       As of 0.4-0, 'getSymbols' uses env=parent.frame() and
   auto.assign=TRUE by default.
##
##
   This behavior will be phased out in 0.5-0 when the call will
   default to use auto.assign=FALSE.getOption("getSymbols.env") and
##
   getOptions("getSymbols.auto.assign") are now checked for alternate defaults
##
## This message is shown once per session and may be disabled by setting
## options("getSymbols.warning4.0"=FALSE). See ?getSymbols for more details.
```

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##
           Friday Monday Thursday Tuesday Wednesday
                                                           Sum
##
     2007
                                                           251
                51
                        48
                                  51
                                           50
##
     2008
                50
                        48
                                  50
                                           52
                                                       53
                                                           253
##
     2009
                49
                        48
                                  51
                                           52
                                                       52
                                                           252
##
     2010
                        47
                                           52
                                                       52
                                                           252
                50
                                  51
##
     2011
                51
                        46
                                  51
                                           52
                                                       52
                                                           252
                                                           250
##
     2012
                51
                        47
                                  51
                                                       51
                                           50
##
     2013
                51
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                                                       51
                                                           252
##
     2014
                50
                        48
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                                                       52
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##
     2015
                49
                        48
                                           52
                                                       52
                                                           252
                                  51
                                                           238
##
     2016
                48
                        44
                                  48
                                           49
                                                       49
               500
                       472
                                 504
                                          513
                                                      515 2504
##
     Sum
```

```
year.2012 <- subset(sample.time, year(sample.time) == "2012")
a<- length(year.2012)
b<- length(which(wday(year.2012, label = T) == "Mon"))</pre>
```

The answer to the extra credit is 250 and 47.