# The start of working with Dirty Data and making it tidy.

# The data is "real" Excel End of Course Survey data from Survey Monkey from the dates of

# February 2016 through August 2016

#Getting my working Directory Info

getwd()

#Setting my working Directory in order to be in the folder where my Dirty Excel file is.

setwd("C:/Users/micha/Desktop/DevLeague Begins Nov 7 2017/Project\_Sprint\_4/")

#confirming my working directory is correct

getwd()

#reading my Dirty Excel file into R and then viewing it.

#creating the variable "Aug\_2016" to represent the "Real\_CSV\_EOC\_Survey.CSV" which is my

#existing Excel Dirty Data

Aug\_2016 <- read.csv("Real\_CSV\_EOC\_Survey.csv")

#To remove the first column name try this

Aug\_2016 <- subset( Aug\_2016, select = -Respondent.ID )

#To remove the next column name try this

Aug\_2016 <- subset( Aug\_2016, select = -Collector.ID )

#To remove this particular column name which isn't next do this

Aug\_2016 <- subset(Aug\_2016, select = -IP.Address )

#To remove this particular column name which isn't next do this

Aug\_2016 <- subset(Aug\_2016, select = -Email.Address )

#To remove this particular column name

Aug\_2016 <- subset(Aug\_2016, select = -First.Name )

#To remove this particular column name (This is an extra column added by Survey Monkey)

Aug\_2016 <- subset(Aug\_2016, select = -Last.Name )

#To remove this particular column name (This is an extra column added by Survey Monkey)

Aug\_2016 <- subset(Aug\_2016, select = -Custom.Data.1 )

#To remove this particular column name (No need to display Student names for this purpose)

Aug\_2016 <- subset(Aug\_2016, select = -What.is.your.name..optional..)

#To remove this particular column name

Aug\_2016 <- subset(Aug\_2016, select = -Who.was.your.training.instructor.s..)

#To remove this particular column name (This was an extra column created by Survey Monkey,

#But this Instructor is no longer with the company)

Aug\_2016 <- subset(Aug\_2016, select = -X.2)

#To remove this particular column name (This was an extra column created by Survey Monkey,

#But this Instructor did not teach this particular collection period)

Aug\_2016 <- subset(Aug\_2016, select = -X.3)

#To remove this particular column name (This was an extra column created by Survey Monkey,

#But this Person no longer teaches)

Aug\_2016 <- subset(Aug\_2016, select = -X.5)

#To remove this particular column name (This was an extra column created by Survey Monkey,

#But this Instructor did not teach this particular collection period)

Aug\_2016 <- subset(Aug\_2016, select = -X.12)

#To remove this particular column name (This was an extra column created by Survey Monkey,

#But this Instructor did not teach this particular collection period)

Aug\_2016 <- subset(Aug\_2016, select = -X.16)

#To Combine all the Instuctor Columns into one single column

Aug\_2016$Instructor <- paste(Aug\_2016$X.4,Aug\_2016$X.6, Aug\_2016$X.7, Aug\_2016$X.8,Aug\_2016$X.9,Aug\_2016$X.10,Aug\_2016$X.11,Aug\_2016$X.13,

Aug\_2016$X.14,Aug\_2016$X.15,Aug\_2016$X.17,Aug\_2016$X.18)

#To remove all the original Instructor columns. And note it takes two closed parenthesis at the end

#and not one as the documentation showed

Aug\_2016 <- subset( Aug\_2016, select = -c( X.18 : X.4))

#To combine the columns of "where did you attend the training course" and X "Other" into a single column "Location"

Aug\_2016$Location <- paste(Aug\_2016$Where.did.you.attend.the.training.course.,Aug\_2016$X)

#To remove the original column "X" which was "Other" meaning not a defined training location

Aug\_2016 <- subset(Aug\_2016, select = -X)

#To remove the original column "Where did you attend the training course"

Aug\_2016 <- subset(Aug\_2016, select = -Where.did.you.attend.the.training.course.)

#To Copy the original column "What.training.course.did.you.attend" and "X.1" that Survey Monkey created for "Other"

#into a single Column "Course".

Aug\_2016$Course <- paste(Aug\_2016$What.training.course.did.you.attend.,Aug\_2016$X.1)

#To Remove the original column "What.training.course.did.you.attend"

Aug\_2016 <- subset(Aug\_2016, select = -What.training.course.did.you.attend.)

#And to Remove the "X.1" Column that Survey Monkey created for "Other" courses attended

Aug\_2016 <- subset(Aug\_2016, select = -X.1)

#To Copy the original column "The.technical.details.in.the.course.were.appropriate.for.my.learning.

#.If.you.Disagree.or.Strongly.Disagree..please.also.mark.if.it.was.Too.Much.or.Too.Little.." and "X.21", "X.22", and "X.23"

#that Survey Monkey created for the answers into a single Column "Technical\_Details".

Aug\_2016$Technical\_Details <- paste(Aug\_2016$The.technical.details.in.the.course.were.appropriate.for.my.learning..If.you.Disagree.or.Strongly.Disagree..please.also.mark.if.it.was.Too.Much.or.Too.Little..,

Aug\_2016$X.21,Aug\_2016$X.22,Aug\_2016$X.23)

#To delete the original column "The.technical.details.in.the.course.were.appropriate.for.my.learning.

#.If.you.Disagree.or.Strongly.Disagree..please.also.mark.if.it.was.Too.Much.or.Too.Little.."

Aug\_2016 <- subset(Aug\_2016, select = -The.technical.details.in.the.course.were.appropriate.for.my.learning..If.you.Disagree.or.Strongly.Disagree..please.also.mark.if.it.was.Too.Much.or.Too.Little..)

#Delete Columns "X.21", "X.22", and "X.23" that Survey Monkey created for the answers.

Aug\_2016 <- subset( Aug\_2016, select = -c( X.23 : X.21))

#Delete Columns X.24, X.25, X.26 for Too Little and Comments

Aug\_2016 <- subset( Aug\_2016, select = -c( X.26 : X.24))

#Renaming first Column to Start\_Date

names(Aug\_2016)[1] <- "Start\_Date"

#Renaming second Column to End\_Date (This column is being kept in case I want to calculate time for the actual survey to complete)

names(Aug\_2016)[2] <- "End\_Date"

#Renaming third Column to Company

names(Aug\_2016)[3] <- "Company"

#Renaming fourth Column to Lecture

names(Aug\_2016)[4] <- "Lecture"

#Renaming fifth Column to Lecture

names(Aug\_2016)[5] <- "Lecture\_Comments"

#Renaming sixth Column to Responsive

names(Aug\_2016)[6] <- "Responsive"

#Renaming seventh Column to Responsive\_Comments

names(Aug\_2016)[7] <- "Responsive\_Comments"

#Renaming eighth Column to Student\_Guide

names(Aug\_2016)[8] <- "Student\_Guide"

#Renaming ninth Column to Guide\_Comment

names(Aug\_2016)[9] <- "Guide\_Comment"

#Renaming tenth Column to Lab\_Exercises

names(Aug\_2016)[10] <- "Lab\_Exercises"

#Renaming eleventh Column to Lab\_Comments

names(Aug\_2016)[11] <- "Lab\_Comments"

#Renaming twelfth Column to Classroom

names(Aug\_2016)[12] <- "Classroom"

#Renaming thirteenth Column to Classroom\_Comments

names(Aug\_2016)[13] <- "Classroom\_Comments"

#Renaming fourteenth Column to Computer

names(Aug\_2016)[14] <- "Computer"

#Renaming fifteenth Column to Computer\_Comments

names(Aug\_2016)[15] <- "Computer\_Comments"

#Renaming sixteenth Column to Network

names(Aug\_2016)[16] <- "Network"

#Renaming sixteenth Column to Network

names(Aug\_2016)[16] <- "Network"

#Renaming seventeenth Column to Network\_Comments

names(Aug\_2016)[17] <- "Network\_Comments"

#Renaming eighteenth Column to See\_Hear

names(Aug\_2016)[18] <- "See\_Hear"

#Renaming nineteenth Column to See\_Hear\_Comments

names(Aug\_2016)[19] <- "See\_Hear\_Comments"

#Renaming twentieth Column to Experience

names(Aug\_2016)[20] <- "Years\_Experience"

#Renaming twenty first Column to IP\_or\_Telephony

names(Aug\_2016)[21] <- "Experience\_Comments"

#Renaming twenty second Column to IP\_or\_Telephony\_Background

names(Aug\_2016)[22] <- "IP\_or\_Telephony\_Background"

#Renaming twenty third Column to Background\_Comments

names(Aug\_2016)[23] <- "Background\_Comments"

#Renaming twenty fourth Column to Had\_Knowledge\_Skills

names(Aug\_2016)[24] <- "Had\_Knowledge\_Skills"

#Renaming twenty fifth Column to Knowledge\_Skills\_Comments

names(Aug\_2016)[25] <- "Knowledge\_Skills\_Comments"

#Renaming twenty Sixth Column to Metaswitch\_Experience

names(Aug\_2016)[26] <- "Metaswitch\_Experience"

#Renaming twenty seventh Column to Metaswitch\_Exp\_Comments

names(Aug\_2016)[27] <- "Metaswitch\_Exp\_Comments"

#Renaming twenty eight Column to Attended\_Appropriate\_Time

names(Aug\_2016)[28] <- "Attended\_\_Appropriate\_Time"

#Renaming twenty ninth Column to Appropriate\_Time\_Comments

names(Aug\_2016)[29] <- "Appropriate\_Time\_Comments"

#Renaming thirtieth Column to Learned\_What\_I\_Needed

names(Aug\_2016)[30] <- "Learned\_What\_I\_Needed"

#Renaming thirty first Column to Learned\_Comment

names(Aug\_2016)[31] <- "Learned\_Comment"

#Renaming thirty second Column to Recommend\_Class

names(Aug\_2016)[32] <- "Recommend\_Class"

#Renaming thirty third Column to Recommend\_Comments

names(Aug\_2016)[33] <- "Recommend\_Comments"

#Renaming thirty fourth Column to Feedback

names(Aug\_2016)[34] <- "Feedback"

#Changing the Column "Lecture" Character String Answers to Numerical Values for future Statiscal Analysis

#Strong Agree = 40

#Agree = 30

#Disagree = 20

#Strongly Disagree = 10

Aug\_2016$Lecture <- gsub('Strongly Agree', '40', Aug\_2016$Lecture)

Aug\_2016$Lecture <- gsub('Strongly Disagree', '10', Aug\_2016$Lecture)

Aug\_2016$Lecture <- gsub('Disagree', '20', Aug\_2016$Lecture)

Aug\_2016$Lecture <- gsub('Agree', '30', Aug\_2016$Lecture)

#Changing the Column "Responsive" Character String Answers to Numerical Values for future Statistical Analysis

#Strong Agree = 40

#Agree = 30

#Disagree = 20

#Strongly Disagree = 10

Aug\_2016$Responsive <- gsub('Strongly Agree', '40', Aug\_2016$Responsive)

Aug\_2016$Responsive <- gsub('Strongly Disagree', '10', Aug\_2016$Responsive)

Aug\_2016$Responsive <- gsub('Disagree', '20', Aug\_2016$Responsive)

Aug\_2016$Responsive <- gsub('Agree', '30', Aug\_2016$Responsive)

#Changing the Column "Student\_Guide" Character String Answers to Numerical Values for future Statistical Analysis

#Strongly Agree = 40

#Agree = 30

#Disagree = 20

#Strongly Disagree = 10

Aug\_2016$Student\_Guide <- gsub('Strongly Agree', '40', Aug\_2016$Student\_Guide)

Aug\_2016$Student\_Guide <- gsub('Strongly Disagree', '10', Aug\_2016$Student\_Guide)

Aug\_2016$Student\_Guide <- gsub('Disagree', '20', Aug\_2016$Student\_Guide)

Aug\_2016$Student\_Guide <- gsub('Agree', '30', Aug\_2016$Student\_Guide)

#Changing the Column "Student\_Guide" Character String Answers to Numerical Values for future Statistical Analysis

#Strongly Agree = 40

#Agree = 30

#Disagree = 20

#Strongly Disagree = 10

Aug\_2016$Student\_Guide <- gsub('Strongly Agree', '40', Aug\_2016$Student\_Guide)

Aug\_2016$Student\_Guide <- gsub('Strongly Disagree', '10', Aug\_2016$Student\_Guide)

Aug\_2016$Student\_Guide <- gsub('Disagree', '20', Aug\_2016$Student\_Guide)

Aug\_2016$Student\_Guide <- gsub('Agree', '30', Aug\_2016$Student\_Guide)

#Changing the Column "Lab\_Exercises" Character String Answers to Numerical Values for future Statistical Analysis

#Strongly Agree = 40

#Agree = 30

#Disagree = 20

#Strongly Disagree = 10

Aug\_2016$Lab\_Exercises <- gsub('Strongly Agree', '40', Aug\_2016$Lab\_Exercises)

Aug\_2016$Lab\_Exercises <- gsub('Strongly Disagree', '10', Aug\_2016$Lab\_Exercises)

Aug\_2016$Lab\_Exercises <- gsub('Disagree', '20', Aug\_2016$Lab\_Exercises)

Aug\_2016$Lab\_Exercises <- gsub('Agree', '30', Aug\_2016$Lab\_Exercises)

#Changing the Column "Classroom" Character String Answers to Numerical Values for future Statistical Analysis

#Strongly Agree = 40

#Agree = 30

#Disagree = 20

#Strongly Disagree = 10

Aug\_2016$Classroom <- gsub('Strongly Agree', '40', Aug\_2016$Classroom)

Aug\_2016$Classroom <- gsub('Strongly Disagree', '10', Aug\_2016$Classroom)

Aug\_2016$Classroom <- gsub('Disagree', '20', Aug\_2016$Classroom)

Aug\_2016$Classroom <- gsub('Agree', '30', Aug\_2016$Classroom)

#Changing the Column "Computer" Character String Answers to Numerical Values for future Statistical Analysis

#Strongly Agree = 40

#Agree = 30

#Disagree = 20

#Strongly Disagree = 10

Aug\_2016$Computer <- gsub('Strongly Agree', '40', Aug\_2016$Computer)

Aug\_2016$Computer <- gsub('Strongly Disagree', '10', Aug\_2016$Computer)

Aug\_2016$Computer <- gsub('Disagree', '20', Aug\_2016$Computer)

Aug\_2016$Computer <- gsub('Agree', '30', Aug\_2016$Computer)

#Changing the Column "Network" Character String Answers to Numerical Values for future Statistical Analysis

#Strongly Agree = 40

#Agree = 30

#Disagree = 20

#Strongly Disagree = 10

Aug\_2016$Network <- gsub('Strongly Agree', '40', Aug\_2016$Network)

Aug\_2016$Network <- gsub('Strongly Disagree', '10', Aug\_2016$Network)

Aug\_2016$Network <- gsub('Disagree', '20', Aug\_2016$Network)

Aug\_2016$Network <- gsub('Agree', '30', Aug\_2016$Network)

#Changing the Column "See\_Hear" Character String Answers to Numerical Values for future Statistical Analysis

#Strongly Agree = 40

#Agree = 30

#Disagree = 20

#Strongly Disagree = 10

Aug\_2016$See\_Hear <- gsub('Strongly Agree', '40', Aug\_2016$See\_Hear)

Aug\_2016$See\_Hear <- gsub('Strongly Disagree', '10', Aug\_2016$See\_Hear)

Aug\_2016$See\_Hear <- gsub('Disagree', '20', Aug\_2016$See\_Hear)

Aug\_2016$See\_Hear <- gsub('Agree', '30', Aug\_2016$See\_Hear)

#Changing the Column "Had\_Knowledge\_Skills" Character String Answers to Numerical Values for future Statistical Analysis

#Strongly Agree = 40

#Agree = 30

#Disagree = 20

#Strongly Disagree = 10

Aug\_2016$Had\_Knowledge\_Skills <- gsub('Strongly Agree', '40', Aug\_2016$Had\_Knowledge\_Skills)

Aug\_2016$Had\_Knowledge\_Skills <- gsub('Strongly Disagree', '10', Aug\_2016$Had\_Knowledge\_Skills)

Aug\_2016$Had\_Knowledge\_Skills <- gsub('Disagree', '20', Aug\_2016$Had\_Knowledge\_Skills)

Aug\_2016$Had\_Knowledge\_Skills <- gsub('Agree', '30', Aug\_2016$Had\_Knowledge\_Skills)

#Changing the Column "Learned\_What\_I\_Needed" Character String Answers to Numerical Values for future Statistical Analysis

#Strongly Agree = 40

#Agree = 30

#Disagree = 20

#Strongly Disagree = 10

Aug\_2016$Learned\_What\_I\_Needed <- gsub('Strongly Agree', '40', Aug\_2016$Learned\_What\_I\_Needed)

Aug\_2016$Learned\_What\_I\_Needed <- gsub('Strongly Disagree', '10', Aug\_2016$Learned\_What\_I\_Needed)

Aug\_2016$Learned\_What\_I\_Needed <- gsub('Disagree', '20', Aug\_2016$Learned\_What\_I\_Needed)

Aug\_2016$Learned\_What\_I\_Needed <- gsub('Agree', '30', Aug\_2016$Learned\_What\_I\_Needed)

#Changing the Column "Technical\_Details" Character String Answers to Numerical Values for future Statistical Analysis

#Strongly Agree = 40

#Agree = 30

#Disagree = 20

#Strongly Disagree = 10

Aug\_2016$Technical\_Details <- gsub('Strongly Agree', '40', Aug\_2016$Technical\_Details)

Aug\_2016$Technical\_Details <- gsub('Strongly Disagree', '10', Aug\_2016$Technical\_Details)

Aug\_2016$Technical\_Details <- gsub('Disagree', '20', Aug\_2016$Technical\_Details)

Aug\_2016$Technical\_Details <- gsub('Agree', '30', Aug\_2016$Technical\_Details)

#Changing the Character String Column "Lecture" to Numeric

Aug\_2016$Lecture <- as.numeric(as.character(Aug\_2016$Lecture))

#Changing the Character String Column "Responsive" to Numeric

Aug\_2016$Responsive <- as.numeric(as.character(Aug\_2016$Responsive))

#Changing the Character String Column "Student\_Guide" to Numeric

Aug\_2016$Student\_Guide <- as.numeric(as.character(Aug\_2016$Student\_Guide))

#Changing the Character String Column "Lab\_Exercises" to Numeric

Aug\_2016$Lab\_Exercises <- as.numeric(as.character(Aug\_2016$Lab\_Exercises))

#Changing the Character String Column "Classroom" to Numeric

Aug\_2016$Classroom <- as.numeric(as.character(Aug\_2016$Classroom))

#Changing the Character String Column "Computer" to Numeric

Aug\_2016$Computer <- as.numeric(as.character(Aug\_2016$Computer))

#Changing the Character String Column "Network" to Numeric

Aug\_2016$Network <- as.numeric(as.character(Aug\_2016$Network))

#Changing the Character String Column "See\_Hear" to Numeric

Aug\_2016$See\_Hear <- as.numeric(as.character(Aug\_2016$See\_Hear))

#Changing the Character String Column "Had\_Knowledge\_Skills" to Numeric

Aug\_2016$Had\_Knowledge\_Skills <- as.numeric(as.character(Aug\_2016$Had\_Knowledge\_Skills))

#Changing the Character String Column "Learned\_What\_I\_Needed" to Numeric

Aug\_2016$Learned\_What\_I\_Needed <- as.numeric(as.character(Aug\_2016$Learned\_What\_I\_Needed))

#Changing the Character String Column "Technical\_Details" to Numeric

Aug\_2016$Technical\_Details <- as.numeric(as.character(Aug\_2016$Technical\_Details))

#Deleting the first row since it does not provide any useful data

Aug\_2016 = Aug\_2016[-1,]

#Calculate the Mean of the Lecture Column with dropping the NA values from the Calculation

#By using the na.rem = TRUE which means remove the NA Values

mean(Aug\_2016$Lecture,na.rm = TRUE)

#Calculate the Mean of the Responsive Column with dropping the NA values from the Calculation

#By using the na.rem = TRUE which means remove the NA Values

mean(Aug\_2016$Responsive,na.rm = TRUE)

#Calculate the Mean of the Student\_Guide Column with dropping the NA values from the Calculation

#By using the na.rem = TRUE which means remove the NA Values

mean(Aug\_2016$Student\_Guide,na.rm = TRUE)

#Calculate the Mean of the Lab\_Exercises Column with dropping the NA values from the Calculation

#By using the na.rem = TRUE which means remove the NA Values

mean(Aug\_2016$Lab\_Exercises,na.rm = TRUE)

#Calculate the Mean of the Classroom Column with dropping the NA values from the Calculation

#By using the na.rem = TRUE which means remove the NA Values

mean(Aug\_2016$Classroom,na.rm = TRUE)

#Calculate the Mean of the Computer Column with dropping the NA values from the Calculation

#By using the na.rem = TRUE which means remove the NA Values

mean(Aug\_2016$Computer,na.rm = TRUE)

#Calculate the Mean of the Network Column with dropping the NA values from the Calculation

#By using the na.rem = TRUE which means remove the NA Values

mean(Aug\_2016$Network,na.rm = TRUE)

#Calculate the Mean of the See\_Hear Column with dropping the NA values from the Calculation

#By using the na.rem = TRUE which means remove the NA Values

mean(Aug\_2016$See\_Hear,na.rm = TRUE)

#Calculate the Mean of the Had\_Knowledge\_Skills Column with dropping the NA values from the Calculation

#By using the na.rem = TRUE which means remove the NA Values

mean(Aug\_2016$Had\_Knowledge\_Skills,na.rm = TRUE)

#Calculate the Mean of the Learned\_What\_I\_Needed Column with dropping the NA values from the Calculation

#By using the na.rem = TRUE which means remove the NA Values

mean(Aug\_2016$Learned\_What\_I\_Needed,na.rm = TRUE)

#Calculate the Mean of the Technical\_Details Column with dropping the NA values from the Calculation

#By using the na.rem = TRUE which means remove the NA Values

mean(Aug\_2016$Technical\_Details,na.rm = TRUE)

#Creating variable name "MPLS\_Lecture" (Mean Perceived Learning Score)

Lecture <- mean(Aug\_2016$Lecture,na.rm = TRUE)

#Creating variable name "MPLS\_Responsive" (Mean Perceived Learning Score)

Responsive <- mean(Aug\_2016$Responsive,na.rm = TRUE)

#Creating variable name "MPLS\_Student\_Guide" (Mean Perceived Learning Score)

Student\_Guide <- mean(Aug\_2016$Student\_Guide,na.rm = TRUE)

#Creating variable name "MPLS\_Lab\_Exercises" (Mean Perceived Learning Score)

Lab\_Exercises <- mean(Aug\_2016$Lab\_Exercises,na.rm = TRUE)

#Creating variable name "MPLS\_Classroom" (Mean Perceived Learning Score)

Classroom <- mean(Aug\_2016$Classroom,na.rm = TRUE)

#Creating variable name "MPLS\_Computer" (Mean Perceived Learning Score)

Computer <- mean(Aug\_2016$Computer,na.rm = TRUE)

#Creating variable name "MPLS\_Network" (Mean Perceived Learning Score)

Network <- mean(Aug\_2016$Network,na.rm = TRUE)

#Creating variable name "MPLS\_See\_Hear" (Mean Perceived Learning Score)

See\_Hear <- mean(Aug\_2016$See\_Hear,na.rm = TRUE)

#Creating variable name "MPLS\_Had\_Knowledge\_Skills" (Mean Perceived Learning Score)

Had\_Knowledge\_Skills <- mean(Aug\_2016$Had\_Knowledge\_Skills,na.rm = TRUE)

#Creating variable name "MPLS\_Learned\_What\_I\_Needed" (Mean Perceived Learning Score)

Learned\_What\_I\_Needed <- mean(Aug\_2016$Learned\_What\_I\_Needed,na.rm = TRUE)

#Creating variable name "MPLS\_Technical\_Details" (Mean Perceived Learning Score)

Technical\_Details <- mean(Aug\_2016$Technical\_Details,na.rm = TRUE)

#Create a new data.set named "Analysis\_Aug\_2016" which can then be used to output all of the MPLS Scores...!! :)

Analysis\_Aug\_2016 <- rbind(Aug\_2016$Lecture,data.frame(Lecture, Responsive, Student\_Guide,

Lab\_Exercises,Classroom,Computer,Network,See\_Hear,Had\_Knowledge\_Skills, Learned\_What\_I\_Needed, Technical\_Details))

#I believe this sets all my columns to numeric with the sapply function

numdata<-Aug\_2016[sapply(Aug\_2016, is.numeric)]

#combine my two data.sets of numdata and Analysis\_Aug\_2016 in order to show my total MPLS Score at the bottom of each column.

MPLS\_Aug\_2016 <- rbind(numdata, Analysis\_Aug\_2016)

View(New\_MPLS\_total)

#Write the cleaned and total Calculated MPLS (Mean Perceived Learning Score) Data from R back to a CSV File (MPLS\_August\_2016)

write.csv(MPLS\_Aug\_2016, "MPLS\_August\_2016.csv")