3.

First the data has to be mergred with innner join to get the common from both datas. So, inner join

inner <- merge(info.data, trans.data, by = "RetailerStoreName")

sample data there are more columns didn’t fit.

A close up of a text

Description automatically generated with medium confidence

Now the data only had monthly data so, we have to get it in quarterly

a<-aggregate(Revenue ~ QuarterYear + Year + ProductLine + ProductType + RetailerStoreName, data = inner, FUN = sum)

A close-up of a computer screen

Description automatically generated

If revenuw was > 440000

revenue <- subset(inner, select = c("QuarterYear", "Year", "ProductLine", "ProductType", "RetailerStoreName"))

but the revenue is supposed to have a place as well like revenue[i] however, I am not sure because my code didn’t work

here is the sample data

A screen shot of a computer

Description automatically generated

The error could be something with the is.na.

However, there are companies 1015 companies with revenue higher than 44000 on a revenue of quaterly basis. Tehre are also 1015 companies that matches the name with both datas.

2.

.a<-c(9,8,9)

sd(.a)

help(sd)

9a<-9

9\*\*10

trunc(1340.2\*10\*\*decimal.places)/10\*\*decimal.places

CustomCVar(input.data,decimal.places)

input.data=c(1,2,3,4,5,6,7,8,9)

decimal.places=3

#question 2 considering input.data has only one column

#make function

CustomCVar <- function(input.data,decimal.places)

{

#compute median,mean, range

median.input.data <- median(input.data, na.rm=TRUE)

mean.input.data <- mean(input.data,na.rm=TRUE)

range.input.data<-(max(input.data)-min(input.data))

#to go through each of the input.data and see if has na

i<-0

for(i in 1:nrow(input.data))

{

#if na then put mean

if(is.na(input.data[i]))

{

input.data[i]<-mean(input.data, na.rm=TRUE)

}

}

#if mean and sd equals 0 then calculate and put the coeff var

if(mean(input.data)==0 & sd(input.data)==0)

{

coeff.var <- sd(input.data)/mean(input.data)

#truncate the coefficient variable to decimal place

coeff.var <- trunc(coeff.var\*10\*\*decimal.places)/10\*\*decimal.places

#diff.input.data<-rep(0,nrow(input.data))

diff.input.data<-0

i<-0

for(i in 1:nrow(input.data))

{

diff.input.data[i]<-(input.data[i+1]-input.data[i])

}

output.var<-paste("Mean:",mean.input.data, "Median: ", median.input.data,"Coeff of Variation: ",coeff.var, "Average Diff:", mean(diff.input.data, na.rm=TRUE,"Range: ", range.input.data))

return(output.var)

} else {return("Both mean and sd are zero.")}

}