library(stats)

library(dplyr)

library(ggplot2)

library(ggfortify)

task<-read.csv(file.choose(),header=T)

str(task)

data<-select(task,c(1,2,3,4,5))

wssplot<-function(data,nc=15,seed=1234)

{

wss<-(nrow(data)-1)\*sum(apply(data,2,var))

for(i in 2:nc){

set.seed(seed)

wss[i]<-sum(kmeans(data,centers=i)$withinss)}

plot(1:nc,wss,type="b",xlab="Number of Clusters",ylab="sum of squares")

}

wssplot(data)

KM<-kmeans(data,2)

autoplot(KM,data,frame=TRUE)

KM$centers



