Exerise4 output

> new3<-matrix(c(aa,new2[,3],new2[,4]),nrow(new2),3)

> new3\_row=c(1:nrow(new3))

> new3\_col=c("schpro","cutoff","quality")

> dimnames(new3)=list(new3\_row,new3\_col)

> new3[,1]<-as.character(new3[,1])

> #Prepare new3 for merge function.

>

> choice1<-matrix(c(paste(datstu[,5],datstu[,11]),datstu[,2]),nrow(datstu),2)

> choice1\_row=c(1:nrow(choice1))

> choice1\_col=c("schpro","score")

> dimnames(choice1)=list(choice1\_row,choice1\_col)

> choice1[,1]<-as.character(choice1[,1])

> #Combine the schoolcode and program to prepare for sorting data

> choice11<-merge(choice1,new3,by="schpro",all.x=TRUE)

> cutoff\_mean1<-mean(as.numeric(choice11[,3]))

> cutoff\_sd1<-sd(as.numeric(choice11[,3]))

> quality\_mean1<-mean(as.numeric(choice11[,4]))

> quality\_sd1<-sd(as.numeric(choice11[,4]))

> dist1\_mean<-mean(dist11[,1])

> dist1\_sd<-sd(dist11[,1])

>

> choice2<-matrix(c(paste(datstu[,6],datstu[,12]),datstu[,2]),nrow(datstu),2)

> choice2\_row=c(1:nrow(choice2))

> choice2\_col=c("schpro","score")

> dimnames(choice2)=list(choice2\_row,choice2\_col)

> choice2[,1]<-as.character(choice2[,1])

> #Combine the schoolcode and program to prepare for sorting data

> choice22<-merge(choice2,new3,by="schpro",all.x=TRUE)

> cutoff\_mean2<-mean(as.numeric(choice22[,3]))

> cutoff\_sd2<-sd(as.numeric(choice22[,3]))

> quality\_mean2<-mean(as.numeric(choice22[,4]))

> quality\_sd2<-sd(as.numeric(choice22[,4]))

> dist2\_mean<-mean(dist22[,1])

> dist2\_sd<-sd(dist22[,1])

>

> choice3<-matrix(c(paste(datstu[,7],datstu[,13]),datstu[,2]),nrow(datstu),2)

> choice2\_row=c(1:nrow(choice2))

> choice2\_col=c("schpro","score")

> dimnames(choice3)=list(choice2\_row,choice2\_col)

> choice3[,1]<-as.character(choice3[,1])

> #Combine the schoolcode and program to prepare for sorting data

> choice33<-merge(choice3,new3,by="schpro",all.x=TRUE)

> cutoff\_mean3<-mean(as.numeric(choice33[,3]))

> cutoff\_sd3<-sd(as.numeric(choice33[,3]))

> quality\_mean3<-mean(as.numeric(choice33[,4]))

> quality\_sd3<-sd(as.numeric(choice33[,4]))

> dist3\_mean<-mean(dist33[,1])

> dist3\_sd<-sd(dist33[,1])

>

> choice4<-matrix(c(paste(datstu[,8],datstu[,14]),datstu[,2]),nrow(datstu),2)

> choice2\_row=c(1:nrow(choice2))

> choice2\_col=c("schpro","score")

> dimnames(choice4)=list(choice2\_row,choice2\_col)

> choice4[,1]<-as.character(choice4[,1])

> #Combine the schoolcode and program to prepare for sorting data

> choice44<-merge(choice4,new3,by="schpro",all.x=TRUE)

> cutoff\_mean4<-mean(as.numeric(choice44[,3]))

> cutoff\_sd4<-sd(as.numeric(choice44[,3]))

> quality\_mean4<-mean(as.numeric(choice44[,4]))

> quality\_sd4<-sd(as.numeric(choice44[,4]))

> dist4\_mean<-mean(dist44[,1])

> dist4\_sd<-sd(dist44[,1])

>

> choice5<-matrix(c(paste(datstu[,9],datstu[,15]),datstu[,2]),nrow(datstu),2)

> choice2\_row=c(1:nrow(choice2))

> choice2\_col=c("schpro","score")

> dimnames(choice5)=list(choice2\_row,choice2\_col)

> choice5[,1]<-as.character(choice5[,1])

> #Combine the schoolcode and program to prepare for sorting data

> choice55<-merge(choice5,new3,by="schpro",all.x=TRUE)

> cutoff\_mean5<-mean(as.numeric(choice55[,3]))

> cutoff\_sd5<-sd(as.numeric(choice55[,3]))

> quality\_mean5<-mean(as.numeric(choice55[,4]))

> quality\_sd5<-sd(as.numeric(choice55[,4]))

> dist5\_mean<-mean(dist55[,1])

> dist5\_sd<-sd(dist55[,1])

>

>

> choice6<-matrix(c(paste(datstu[,10],datstu[,16]),datstu[,2]),nrow(datstu),2)

> choice2\_row=c(1:nrow(choice2))

> choice2\_col=c("schpro","score")

> dimnames(choice6)=list(choice2\_row,choice2\_col)

> choice6[,1]<-as.character(choice6[,1])

> #Combine the schoolcode and program to prepare for sorting data

> choice66<-merge(choice6,new3,by="schpro",all.x=TRUE)

> cutoff\_mean6<-mean(as.numeric(choice66[,3]))

> cutoff\_sd6<-sd(as.numeric(choice66[,3]))

> quality\_mean6<-mean(as.numeric(choice66[,4]))

> quality\_sd6<-sd(as.numeric(choice66[,4]))

> dist6\_mean<-mean(dist66[,1])

> dist6\_sd<-sd(dist66[,1])

>

>

> rank\_org<-matrix(c(paste(rank[,1],rank[,2]),rank[,3],rank[,5]),nrow(rank),3)

> #Generate a matrix of school and program, score and jssdistrict.

> rank\_org[,1]<-as.character(rank\_org[,1])

> rank\_org\_row=c(1:nrow(rank\_org))

> rank\_org\_col=c("schpro","score","jssdistrict")

> dimnames(rank\_org)=list(rank\_org\_row,rank\_org\_col)

> #Prepare to merge other data frame.

> new4<-merge(rank\_org,new3,by="schpro",all.x=TRUE)

> # Add cutoff and quality infomation

> new5<-merge(rank\_org,datjss,by="jssdistrict",all.x=TRUE)

> # Add jssdistrict infomation.

> new6<-matrix(c(rank[,1],new5[,5],new5[,6]),139224,3)

> new6\_row=c(1:nrow(new6))

> new6\_col=c("schoolcode","x","y")

> dimnames(new6)=list(new6\_row,new6\_col)

> # Prepare to merge with datsss.

> new7<-merge(new6,datsss\_new,by="schoolcode",all.x=TRUE)

> distance<-as.matrix(sqrt((69.172\*(as.numeric(new7$ssslong)-as.numeric(new7$x))\*cos(as.numeric(new7$y)/57.3))^2+(69.172\*(as.numeric(new7$ssslat)-as.numeric(new7$y))^2)))

> #Distance of all admitted schools.

> exercise4.2<-cbind(new4[,1:5],distance[,1])

> #Generate a matrix of score, cutoff, quality and distance

> new8<-as.matrix(exercise4.2[order(exercise4.2$score),])

> group1<-as.matrix(new8[1:34806,])

> # Generate the first quantile.

> group2<-as.matrix(new8[34807:69612,])

> group3<-as.matrix(new8[69613:104419,])

> group4<-as.matrix(new8[104420:139224,])

>

> cutoffmeangroup1<-mean(as.numeric(group1[,4]))

> cutoffsdgroup1<-sd(as.numeric(group1[,4]))

> cutoffmeangroup2<-mean(as.numeric(group2[,4]))

> cutoffsdgroup2<-sd(as.numeric(group2[,4]))

> cutoffmeangroup3<-mean(as.numeric(group3[,4]))

> cutoffsdgroup3<-sd(as.numeric(group3[,4]))

> cutoffmeangroup4<-mean(as.numeric(group4[,4]))

> cutoffsdgroup4<-sd(as.numeric(group4[,4]))

>

> qualitymeangroup1<-mean(as.numeric(group1[,5]))

> qualitysdgroup1<-sd(as.numeric(group1[,5]))

> qualitymeangroup2<-mean(as.numeric(group2[,5]))

> qualitysdgroup2<-sd(as.numeric(group2[,5]))

> qualitymeangroup3<-mean(as.numeric(group3[,5]))

> qualitysdgroup3<-sd(as.numeric(group3[,5]))

> qualitymeangroup4<-mean(as.numeric(group4[,5]))

> qualitysdgroup4<-sd(as.numeric(group4[,5]))

>

> distancemeangroup1<-mean(as.numeric(group1[,6]))

> distancesdgroup1<-sd(as.numeric(group1[,6]))

> distancemeangroup2<-mean(as.numeric(group2[,6]))

> distancesdgroup2<-sd(as.numeric(group2[,6]))

> distancemeangroup3<-mean(as.numeric(group3[,6]))

> distancesdgroup3<-sd(as.numeric(group3[,6]))

> distancemeangroup4<-mean(as.numeric(group4[,6]))

> distancesdgroup4<-sd(as.numeric(group4[,6]))