**This Run analysis file describes the codes to create dataset2 output**

if(!file.exists("./data")){dir.create("./data")}

fileUrl <- "https://d396qusza40orc.cloudfront.net/getdata%2Fprojectfiles%2FUCI%20HAR%20Dataset.zip"

download.file(fileUrl,destfile="./data/Dataset.zip",method="curl")

% Total % Received % Xferd Average Speed Time Time Time Current

Dload Upload Total Spent Left Speed

100 59.6M 100 59.6M 0 0 3215k 0 0:00:19 0:00:19 --:--:-- 3667k

> unzip(zipfile="./data/Dataset.zip",exdir="./data")

> path\_rf <- file.path("./data" , "UCI HAR Dataset")

> files<-list.files(path\_rf, recursive=TRUE)

files

dataActivityTest <- read.table(file.path(path\_rf, "test" , "Y\_test.txt" ),header = FALSE)

dataActivityTrain <- read.table(file.path(path\_rf, "train", "Y\_train.txt"),header = FALSE)

dataSubjectTrain <- read.table(file.path(path\_rf, "train", "subject\_train.txt"),header = FALSE)

dataSubjectTest <- read.table(file.path(path\_rf, "test" , "subject\_test.txt"),header = FALSE)

dataFeaturesTest <- read.table(file.path(path\_rf, "test" , "X\_test.txt" ),header = FALSE)

dataFeaturesTrain <- read.table(file.path(path\_rf, "train", "X\_train.txt"),header = FALSE)

#Merges the training and the test sets to create one data set

dataSubject <- rbind(dataSubjectTrain, dataSubjectTest)

dataActivity<- rbind(dataActivityTrain, dataActivityTest)

dataFeatures<- rbind(dataFeaturesTrain, dataFeaturesTest)

#set names to variables

names(dataSubject)<-c("subject")

names(dataActivity)<- c("activity")

dataFeaturesNames <- read.table(file.path(path\_rf, "features.txt"),head=FALSE)

names(dataFeatures)<- dataFeaturesNames$V2

#.Merge columns to get the data frame Data for all data

dataCombine <- cbind(dataSubject, dataActivity)

Data <- cbind(dataFeatures, dataCombine)

#Extracts only the measurements on the mean and standard deviation for each measurement

subdataFeaturesNames<-dataFeaturesNames$V2[grep("mean\\(\\)|std\\(\\)", dataFeaturesNames$V2)]

selectedNames<-c(as.character(subdataFeaturesNames), "subject", "activity" )

Data<-subset(Data,select=selectedNames)

#Uses descriptive activity names to name the activities in the data set

activityLabels <- read.table(file.path(path\_rf, "activity\_labels.txt"),header = FALSE)

names(Data)<-gsub("^t", "time", names(Data))

names(Data)<-gsub("^f", "frequency", names(Data))

names(Data)<-gsub("Acc", "Accelerometer", names(Data))

names(Data)<-gsub("Gyro", "Gyroscope", names(Data))

names(Data)<-gsub("Mag", "Magnitude", names(Data))

names(Data)<-gsub("BodyBody", "Body", names(Data))

names(Data)

#Creates a second,independent tidy data set and ouput it

Data2<-aggregate(. ~subject + activity, Data, mean)

Data2<-Data2[order(Data2$subject,Data2$activity),]

write.table(Data2, file = "tidydata.txt",row.name=FALSE)

Data2