run_analysis.R(v1.1)

Badarinadh Vissapragada

2020-04-08

```
##Downloading the zipfile

if(!file.exists(".data")){dir.create("./data")}
fileurl<-
"https://d396qusza40orc.cloudfront.net/getdata%2Fprojectfiles%2FUCI%20HAR%20D
ataset.zip"
download.file(fileurl,destfile="Assignment_4Data.zip")


##unzip commands did not work properly, so I took files after window unzip

##Reading training Data set

train_arrays<-read.table("X_train.txt")
subject<-as.factor((read.table("subject_train.txt"))$V1)
activity<-as.factor((read.table("Y_train.txt"))$V1)
traindata<-cbind(train_arrays,subject,activity)

## Reading the test Data set

test_arrays<-read.table("X_test.txt")
subject<-as.factor((read.table("subject_test.txt"))$V1)
activity<-as.factor((read.table("Y_test.txt"))$V1)
testdata<-cbind(test_arrays,subject,activity)

## Merging Test and training Data sets (Assignment-Point#1)

train_test_merge<-rbind(traindata, testdata)

## Creating a new subset of only Average and Std deviation data of the
measurements (Assignment-Point#2)
library(dplyr)

##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union

train_test_subset<-
select(train_test_merge,V1:V6,V41:V46,V81:V86,V121:V126,V161:V166,V201:V202,

V214:V215,V227:V228,V240:V241,V253:V254,V266:V271,V294:V296,V345:V350,

V373:V375,V424:V429,V452:V454,V503:V504,V513,V516:V517,V529:V530,V539,V542:V5
43,V555:V561,subject,activity)
## Activity mapped 1 WALKING 2 WALKING_UPSTAIRS 3 WALKING_DOWNSTAIRS 4
SITTING 5 STANDING 6 LAYING
## Read the features.txt for the code names
FeaturesNames<-read.table("features.txt")
selectedColumns<-
as.vector(FeaturesNames[c(1:6,41:46,81:86,121:126,161:166,201:202,

214:215,227:228,240:241,253:254,266:271,294:296,345:350,

373:375,424:429,452:454,503:504,513,516:517,529:530,539,542:543,555:561),])
library(readr)
## Cleaning the label names
selectedColumnsNames<-gsub("[(-)-]*", "", selectedColumns$V2)
selectedColumnsNames<-gsub("angle","angle_",selectedColumns$V2)

## NAming the Data set with the named variables (Point # 3 in the assignment)
i<-1
for (i in c(1:84)) {

  names(train_test_subset)[i]<-selectedColumnsNames[i]
}
## Subject labels
activitylabels <- read.table("activity_labels.txt")
levels(train_test_subset$activity) <- activitylabels$V2
##Final Data set and writing the data
Tidy_data_train_test <- group_by(train_test_subset,activity, subject)  %>%
summarise_all(mean)

write.table(Tidy_data_train_test,"Tidy_data_train_test.txt",row.names =
FALSE)
```