|  |
| --- |
| library(reshape2) |
|  |

|  |
| --- |
|  |
| #import datasets |

|  |
| --- |
| actlabel <- read.table("D:/Coursera assignments/getdata\_projectfiles\_UCI HAR Dataset/UCI HAR Dataset/activity\_labels.txt") |
|  |

|  |
| --- |
| actlabel [,2] <- as.character(actlabel[,2]) |
|  |

|  |
| --- |
| features <- read.table("D:/Coursera assignments/getdata\_projectfiles\_UCI HAR Dataset/UCI HAR Dataset/features.txt") |
|  |

|  |
| --- |
| features[,2] <- as.character(features[,2]) |
|  |

|  |
| --- |
|  |

|  |
| --- |
| wantedf <- grep(".\*mean.\*|.\*std.\*", features[,2]) |
|  |

|  |
| --- |
| wantedf.names <- features[wantedf,2] |
|  |

|  |
| --- |
| wantedf.names = gsub('-mean', 'Mean', wantedf.names) |
|  |

|  |
| --- |
| wantedf.names = gsub('-std', 'Std', wantedf.names) |
|  |

|  |
| --- |
| wantedf.names <- gsub('[-()]', '', wantedf.names) |
|  |

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| --- |
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|  |
| --- |
| # Import more datasets |
|  |

|  |
| --- |
| train <- read.table("D:/Coursera assignments/getdata\_projectfiles\_UCI HAR Dataset/UCI HAR Dataset/train/X\_train.txt")[featuresWanted] |
|  |

|  |
| --- |
| trainact <- read.table("D:/Coursera assignments/getdata\_projectfiles\_UCI HAR Dataset/UCI HAR Dataset/train/Y\_train.txt") |
|  |

|  |
| --- |
| trainsub<- read.table("D:/Coursera assignments/getdata\_projectfiles\_UCI HAR Dataset/UCI HAR Dataset/train/subject\_train.txt") |
|  |

|  |
| --- |
| train <- cbind(trainsub, trainact, train) |
|  |

|  |
| --- |
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|  |
| --- |
| test <- read.table("D:/Coursera assignments/getdata\_projectfiles\_UCI HAR Dataset/UCI HAR Dataset/test/X\_test.txt")[featuresWanted] |
|  |

|  |
| --- |
| testact <- read.table("D:/Coursera assignments/getdata\_projectfiles\_UCI HAR Dataset/UCI HAR Dataset/test/Y\_test.txt") |
|  |

|  |
| --- |
| testsub <- read.table("D:/Coursera assignments/getdata\_projectfiles\_UCI HAR Dataset/UCI HAR Dataset/test/subject\_test.txt") |
|  |

|  |
| --- |
| test <- cbind(testsub, testact, test) |
|  |

|  |
| --- |
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|  |
| --- |
| # merge datasets and add labels |
|  |

|  |
| --- |
| allData <- rbind(train, test) |
|  |

|  |
| --- |
| colnames(allData) <- c("subject", "activity", featuresWanted.names) |
|  |

|  |
| --- |
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| --- |
| # convert activities and subjects into factors |
|  |

|  |
| --- |
| allData$activity <- factor(allData$activity, levels = actlabel[,1], labels = actlabel[,2]) |
|  |

|  |
| --- |
| allData$subject <- as.factor(allData$subject) |
|  |

|  |
| --- |
|  |
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|  |
| --- |
| allData.melted <- melt(allData, id = c("subject", "activity")) |
|  |

|  |
| --- |
| allData.mean <- dcast(allData.melted, subject + activity ~ variable, mean) |
|  |
| #export the result of merged datasets into a text file |

|  |
| --- |
|  |
|  |

write.table(allData.mean, "tidy.txt", row.names = FALSE, quote = FALSE)