# Extracting Data

import csv  
def getstuff(filename):  
 with open(filename, "r") as csvfile:  
 datareader = csv.reader(csvfile)  
 count = 0  
 for row in datareader:  
 yield row  
 count += 1  
 else:  
 return

# Adding rows

def getdata(filename):  
 for row in getstuff(filename):  
 yield row

# appending list to row

def storedata(filename):  
 list=[]  
 for row in getdata(filename):  
 list.append(row)  
 return list

# Function to extraction data from specific folder/subfolders

list=[]  
  
for a in range(1,20):  
 if a>9:  
 activity="a"+str(a)  
 else:  
 activity="a0"+str(a)  
  
 for k in range(1,9):  
 person="p"+str(k)  
   
 for i in range(1,61):  
 if i>9:  
 filename="s"+str(i)+".txt"  
 else:  
 filename="s0"+str(i)+".txt"  
   
 filename="/Users/audz/data/"+activity+"/"+person+"/"+ filename   
 sublist=[]  
 sublist.append( ["A"+str(a) ] )  
 for row in getdata(filename):  
 sublist.append(row)   
 list.append(sublist)

# Creating a new list & appending original data

newlist=[]  
for i in range(0,len(list)):  
 sublist=[]  
 for j in range(0,len(list[i])):  
 for k in range(0,len(list[i][j]) ):  
 sublist.append(list[i][j][k])  
 newlist.append(sublist)

list=newlist

# Compiling data in one txt document

file = open('dailysportsdata.txt', 'w')  
list0=[]  
list0.append("Activity")  
list1=['T','RA','LA','RL','LL']  
list2=['x','y','z']  
list3=["acc", "gryo", "mag"]  
for L in range(1,126):  
 for i in range(0,5):  
 limb=list1[i]  
 for j in range(0,3):  
 axis=list3[j]  
 for k in range (0,3):  
 type=list2[k]  
 list0.append(limb+"-"+type+"\_"+axis+ " " + "(" + str(L) + ")")  
list0=",".join(list0)

file = open('dailysportsdata.txt', 'w')  
file.write("%s\n" % list0)  
for item in list:  
 item=",".join(item)  
 file.write("%s\n" % item)