

# Health Tracker(Python Project)

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## Source Code :

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class USER:
    def __init__(self,name,sex,age,weight,height):
        self.name = name
        self.sex = sex
        self.age = age
        self.weight = weight
        self.height = height
        self.BMI()

    def BMI(self):
        self.bmi = round(float(self.weight)/(float(self.height)/100)**2,1)
        if self.bmi>25 :
            self.bmi_com = ". Lose some weight!!"
        elif self.bmi>18.5 :
            self.bmi_com = ". Keep up the good work!!"
        else:
            self.bmi_com = ". Try to put on some weight!!"

class WEEKLY_WORKOUT:
    def __init__(self,workout_list):
        self.workout_list = workout_list
        self.Stats()

    def Stats(self):
        self.distance = [round(int(x[1]) * 0.000713,2) for x in self.workout_list]
        self.time = [round(float(y[0]) + float(y[1])/60 + float(y[2])/3600,2) for y in
[x[2].split(":") for x in self.workout_list]]
        self.speed = [round(self.distance[i]/self.time[i],2) for i in range(len(self.distance)) if
self.time[i]!=0]
        if 0.0 not in self.time: self.award = 1
        else : self.award = 0
        self.longest_dis = max(self.distance)
        self.fastest_speed = max(self.speed)
        self.shortest_dis = min([x for x in self.distance if x!=0])
        self.slowest_speed = min(self.speed)
        if sum(self.time)>0:self.average_speed = round(sum(self.distance)/sum(self.time),2)
        else: self.average_speed = 0.0
        self.average_dis = round(sum(self.distance),2)

class MONTHLY_WORKOUT:
    def __init__(self,workout_list):
        self.workout_list = workout_list
        self.Stats()

    def Stats(self):
        self.award = sum([x.award for x in self.workout_list])
        self.longest_dis = max([x.longest_dis for x in self.workout_list])
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        self.fastest_speed = max([x.fastest_speed for x in self.workout_list])
        self.shortest_dis = min([x.shortest_dis for x in self.workout_list])
        self.slowest_speed = min([x.slowest_speed for x in self.workout_list])
        self.average_speed = round(sum([x.average_speed for x in
self.workout_list])/len(self.workout_list),2)
        self.average_dis = round(sum([x.average_dis for x in
self.workout_list])/len(self.workout_list),2)

class OVERALL_WORKOUT:
    def __init__(self,workout_list):
        self.workout_list = workout_list
        self.Stats()

    def Stats(self):
        self.award = sum([1 for x in self.workout_list if x.award==4])
        self.longest_dis = max([x.longest_dis for x in self.workout_list])
        self.fastest_speed = max([x.fastest_speed for x in self.workout_list])
        self.shortest_dis = min([x.shortest_dis for x in self.workout_list])
        self.slowest_speed = min([x.slowest_speed for x in self.workout_list])
        self.average_speed = round(sum([x.average_speed for x in
self.workout_list])/len(self.workout_list),2)
        self.average_dis = round(sum([x.average_dis for x in
self.workout_list])/len(self.workout_list),2)

def display(user,flag,workout):
    if user.sex=='Male':print("Hi Mr." + user.name)
    else : print("Hi Miss." + user.name)
    print("Your BMI is: "+ str(user.bmi) + user.bmi_com)
    if flag == 1:
        print("Your Weekly achievement is as follows:")
        if workout.award>0 : print("No breakout in Sessions: You get a 7/7 award")
    elif flag == 2:
        print("Your Monthly achievement is as follows:")
        if workout.award>0 : print("Congrats! You have got a {} 7/7 award for this
month".format(workout.award))
    elif flag == 3:
        print("Your Overall achievement is as follows:")
        if workout.award>0 : print("Congrats! You have got a {} M/M award for this
month".format(workout.award))
    print("Your Fastest Speed is: "+ str(workout.fastest_speed) + " km/hr")
    print("Your Longest Distance is: "+ str(workout.longest_dis) + " km")
    print("Your Slowest Speed is: "+ str(workout.slowest_speed) + " km/hr")
    print("Your Shortest Distance is: "+ str(workout.shortest_dis) + " km")
    if flag==1:
        print("Your Weekly Average Speed is: "+ str(workout.average_speed) + " km/hr")
        print("Your Weekly Average Distance is: "+ str(workout.average_dis) + " km")
    elif flag==2:
        print("Your Monthly Average Speed is: "+ str(workout.average_speed) + " km/hr")
        print("Your Monthly Average Distance is: "+ str(workout.average_dis) + " km")
    else:
        print("Your Overall Average Speed is: "+ str(workout.average_speed) + " km/hr")
        print("Your Overall Average Distance is: "+ str(workout.average_dis) + " km")

if __name__=="__main__":
    print("Input - - - - -")
    name = input("Name : ")
    sex = input("Sex : ")

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age = input("Age (years) : ")
weight = input("Weight (Kg) : ")
height = input("Height (cms) : ")
user = USER(name,sex,age,weight,height)

print("\nWorkout Input- - - - -")
num_days = 0
num_weeks = 0
num_months = 0
week_lis = []
month_lis = []
overall_lis = []
file = open("user.txt","r")
Data = file.readlines()
for x in Data:
    print(x)
print("\n")

for line in Data:
    user_day = [x.strip() for x in line.split(",")]
    week_lis.append(user_day)
    num_days+=1

    if num_days == 7:
        num_days = 0
        num_weeks+=1
        weekly_workout = WEEKLY_WORKOUT(week_lis)
        month_lis.append(weekly_workout)
        week_lis.clear()

    if num_weeks == 4:
        num_weeks = 0
        num_months += 1
        monthly_workout = MONTHLY_WORKOUT(month_lis)
        overall_lis.append(monthly_workout)
        month_lis.clear()

if len(overall_lis)>0:
    overall_workout = OVERALL_WORKOUT(overall_lis)
    display(user,3,overall_workout)
elif len(month_lis)>1:
    monthly_workout = MONTHLY_WORKOUT(month_lis)
    display(user,2,monthly_workout)
else:
    display(user,1,weekly_workout)

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