

Main steps

- 1 Enter valid weight of food in each container and calculate total weight
- 2 Enter size of dog
- 3 Store a message that states if the total weight of food is within the recommended range
- 4 Calculate average weight
- 5 Display output messages

Refinements

- 1.1 totalWeight = 0
- 1.2 start fixed loop 5 times
- 1.3 enter the foodWeight
- 1.4 while the foodWeight < 0 or foodWeight > 200
- 1.5 display "Invalid, a single container can only hold up to 200g"
- 1.6 re-enter the foodWeight
- 1.7 end while
- 1.8 totalWeight = totalWeight + foodWeight
- 1.9 end fixed loop
- 2.1 display "Please enter the size of your dog: small, medium or large"
- 2.2 enter size of dog
- 3.1 if dog size = small and totalWeight is from 110 to 140 then
- 3.2 store message "This weight of food is suitable for your small dog."
- 3.3 else
- 3.4 if dog size = medium and totalWeight is from 330 to 440 then
- 3.5 store message "This weight of food is suitable for your medium dog."
- 3.6 else
- 3.7 if dog size = large and totalWeight is from 690 to 900 then
- 3.8 store message "This weight of food is suitable for your large dog."
- 3.9 else
- 3.10 store message "This weight of food is not recommended for the size of dog"
- 3.11 end if
- 3.12 end if
- 3.13 end if
- 4.1 averageWeight = totalWeight / 5
- 4.2 round averageWeight to 1 decimal place
- 5.1 start fixed loop 5 times
- 5.2 display next foodWeight
- 5.3 end fixed loop
- 5.4 display total weight message
- 5.5 display average weight message
- 5.6 display recommendation message

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1 #2022 Assignment
2
3 totalWeight = 0.0
4 foodWeight = [0.0]*5
5 dogSize = ""
6 averageWeight=0.0
7 outputMessage = ""
8
9 #Start fixed loop for 5 containers
10 for counter in range(5):
11     #Enter foodWeight and store in an array
12     foodWeight[counter] = float(input("Please enter the food weight"))
13
14     #Start input validation (0-200)
15     while foodWeight[counter] < 0 or foodWeight[counter] >200:
16         print("Invalid - a single container can only hold up to 200g")
17         foodWeight = int(input())
18
19     #Keep a running total of totalWeight
20     totalWeight = totalWeight + foodWeight[counter]
21
22 #Determine size of dog and decide on outputMessage
23 dogSize = input("Please enter the size of the dog: small, medium or large")
24
25 if dogSize == "small" and totalWeight > 110 and totalWeight <140:
26     outputMessage = "This weight of food is suitable for your small dog"
27 elif dogSize == "medium" and totalWeight > 330 and totalWeight <440:
28     outputMessage = "This weight of food is suitable for your medium dog"
29 elif dogSize == "large" and totalWeight > 690 and totalWeight <900:
30     outputMessage = "This weight of food is suitable for your large dog"
31 else:
32     outputMessage = "This weight of food is not recommended for the size of
33
34 #Calculate average weight
35 averageWeight = totalWeight/5
36 #Round to 1 decimal place
37 averageWeight = round(averageWeight,1)
38
39 #Display each food weight stroed as an array
40 print("_____")
41 for counter in range(5):
42     print("Weight " +str(counter+1)+ ":" + str(foodWeight[counter]))
43
44 #Print output messages
45 print ("The total weight is " + str(totalWeight))
46 print ("The average weight is " + str(averageWeight))
47 print (outputMessage)
48
```

