

Exercise 'Total Space'

- Given a list of the number of variables and their types, write a program to determine how much total memory space is needed to store them.
- Your program should first read an integer number indicating how many variables in the list.
Next, for each successive variable, your program should read in the number of variables followed by a space and then the type of the variable ('i' for integer, 'd' for decimal, or 'c' for character).
- Your program should display the total amount of space required to store all of the variables in bytes.
However, if the user enters an incorrect type for any number of variables, the program should print 'invalid type' and exit.
- Use the sizeof function.

Exercise Total Space

- Test case 1 :

Input:

3

15 i

8 c

10 d

Output:

148 bytes

- Test case 2 :

Input:

2

75 x

2 c

Output:

invalid type

WARNING: Hints to the exercise on the next slide

Please try to solve the exercise by yourself first...

Exercise Total Space Hints

- Read how many data
- Loop with for that many
 - Read the number and type
 - Based on the type, if valid type, use sizeof to accumulate the total space
 - If not valid, print message and exit immediately with return 0;
- Print total with " bytes" and newline