

Homework 9

CP119L, May 2, 2022

1. (textbook 9.4 in p.433)

If you choose to put the answers of all parts (part (a) to part (i)) together in one file, you may encounter the weirdness of `scanf` at later parts. It is due to the leftover in the input buffer left by previous `scanf` operations. To cure this, consider to split them into individual program files; alternatively, you may consider to use the subroutine "dump" introduced in professor's lecture slide / video.

2. (textbook 9.10 in p.434)

The requirement is changed to "the Celsius temperatures should have a character width reserved for the sign symbol: the positive temperature is preceded by a space and the negative one by the minus sign."

3. Write a program to achieve the following:
 - a. Define a structure called `part` containing unsigned int variable `partNumber` and character array `partName` with values that may be as long as 25 characters (including the termination character)
 - b. Define `Part` to be a synonym for the type `struct part`.
 - c. Use `Part` to declare variable `a` to be of type `struct part`, array `b[10]` to be of type `struct part` and variable `ptr` to be of type pointer to `struct part`.
 - d. Read a part number and a part name from the keyboard into the individual members of variable `a`.
 - e. Assign the member values of variable `a` to element 3 of array `b`.
 - f. Assign the address of array `b` to the pointer variable `ptr`.
 - g. Print the member values of element 3 of array `b` using the variable `ptr` and the structure pointer operator to refer to the members.