Program 1:

Write a program to define the following variables and to display their addresses:

    char c = 'a';
    int inum = 1;
    long lnum = 123456;
    float fnum = 125.6;
    double dnum = 1234.56 ;

Draw a diagram to illustrate the memory layout for these variables. How many bytes of main storage are allocated for each of these variables?

Program 2:

Write a program to input ten integer values into an array *unsorted*. Your program should then loop through *unsorted*, selecting the lowest value during each pass. For each pass through the loop, the element in the array *unsorted* containing the lowest value is replaced with a large value (e.g. 999) after copying it into the next available element of another integer array *sorted*.

Example Run;

Unsorted at the start: 83 15 43 54 34 87 67 45 93 51

sorted at the start:

Unsorted after the first pass: 83 999 43 54 34 87 67 45 93 51

Sorted after the first pass: 15

Display the values of sorted. Use pointers to access the elements of each array.