

Lab Exercise 2 – IO and modules

May 18, 2010

1. Second largest

Write a C program to display the second largest number of the input. The input is from the keyboard. The first integer is the number of the integers read, followed by that number of integers. After reading them all, the program should display the second largest integer.

Your solution should consists 3 files:

1. second.c containing function that reads input (short integers) and returns second largest.
2. second.h containing declarations that may be included in other files
3. ex2-1.c containing main() function and including second.h

Compile both files.

2. Binary representation

Write a C program to display the binary representation of a short int on the monitor. Your program reads one single short int from the keyboard, then it displays the binary representation of that int on the monitor followed by a new lines.

Your solution should consists 3 files:

1. bin.c containing function that accepts short integers and prints its binary representation.
2. bin.h containing declarations that may be included in other files
3. ex2-2.c containing main() function and including bin.h

Compile both files.

3. Binary of second largest

Write a C program to display the binary representation of a short second largest integer in the input. Use functions written as solutions for 1st and 2nd exercises. Your solution should consists only one new file: ex2.c that includes second.h and bin.h.