

CA406 - Software Lab I

Lab Exercise – 8

Date: 22/09/2018

1. Write a C program which adds two big positive integers (if the numbers are too big, integer addition will not work due to size limit). Your program should read two integers as strings and perform addition of the two numbers and the sum should also be output as a string.
2. Write a C program for the Game of Guessing between the user and the computer. The rules of the game are as follows.
 - Computer generates 50 random numbers in the range 0 to 99
 - Now user enters a number (in the range 0 to 99) as his guess, if the number is one among the 50 random numbers computer has generated then the user wins otherwise computer wins.

Internally your program should do the following things.

- Generates 50 random numbers and store them in an array of size 50
- Sort the numbers in ascending order using Insertion sort.
- Search if the number entered by the user is present in the sorted array or not using the binary searching technique.
- Display all the generated random numbers with a proper message to the user whether he has won or not

Sorting and searching should be implemented as separate functions.

3. (Optional) Write C function to subtract and multiply two big positive numbers.