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| **Application/ Program name:** | CH8\_EX11.CPP |
| **Written by:** | Allen J Myers |

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| **Purpose or problem definition:** |
| Write a program that inputs two positive integers of, at most, 20 digits and outputs the sum of the numbers. If the sum of the numbers has more than 20 digits, output the sum with an appropriate message. Your program must, at least, contain a function to read and store a number into an array and another function to output the sum of the numbers. |
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| **Program Procedures:** |
| System will prompt user for a integer value of at most 20 digits, it will store that digit to an array, and prompt user for another integer value of at most 20 digits, it will store the second digit into another array. The system will then add the values of the arrays together, and output the value of the array. If the array is too larger(over 20 digits) it will output the value of the array with an error message. |
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| **Algorithm/Processing/Conditions:** |
| **Inputs:** |
| Two integer values of at most twenty digits. |
| **Processes:** |
| System stores the integer values to two different arrays. System will process and determine whether the array is longer than 20 digits, it will then add together the two arrays. |
| **Outputs:** |
| System will output the value of the new array created from the value of the two previous integer values. |
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| **Notes & Restriction:** |
| System will not explicitly error out if there is a digit longer than 20 digits, it will later inform the user of the error. |
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| **Comments:** |
| Sample usage of arrays, using a basic mathematic computation. |