

CS 1713
Introduction to Computer Programming II
Recitation 6

1. (100 pts) Write a program to find the smallest positive integer that does not appear in the array and can not be formed by the sum of two numbers in an array. For this assignment implement the following function

```
int issumof2(int data[], int size, int number)
int inarray((int data[], int size, int number)
```

- The function *issumof2* returns 1 if the *number* is sum of 2 elements in the array *data* and returns 0 otherwise. *size* is the number of elements in the array.
- The function *inarray* returns 1 if the number appears in the array *data* and returns 0 otherwise. *size* is the number of elements in the array.

1	2	2	3	4	3	1
0	1	2	3	4	5	6

Figure 1: Example

An example is given in figure 1. 1,2,3 and 4 appear in this array. 4 can be formed as 4+1, 5 as 3+2, 6 as 3+3 , 7 as 3+4 and 8 as 4+4 (it is ok to use a number twice). 9 does not appear in the array and it can not be formed as sum of 2 numbers in the array. So, 9 is the solution for this array.

Read an array of size 7 from the user, compute the smallest positive integer that does not appear in the array or can not be formed by the sum of two numbers in an array, and print the result.

Sample execution is given below

```
Enter 7 numbers
1 2 2 3 4 3 1
Smallest positive Integer = 9
```

Submit your program electronically using the blackboard system