**MARKS AWARDED: 100**

Well done ☺

/\* CS1010 AY2011/2 Semester 2 Lab4 Ex2

\*

\* maxSum.c

\* This program read a length l, then calculate maximal

\* consecutive sum of length l in an array.

\*

\* Loh Wan Xin

\* B02

\*/

#include <stdio.h>

#include <math.h>

/\* function prototypes \*/

int maxSum\_l(int [], int, int, int \*);

int sum\_l(int [], int, int, int);

int main(void)

{

int l; // to calculate max consecutive sum of length l

int arr[] = {6, 1, 8, 2, 7, 4, 7, 1, 8, 2, 3};

int index; // index of the starting position of max consecutive sum

int max; // max sum of length l

printf("Enter length l: ");

scanf("%d", &l);

max = maxSum\_l(arr, 11, l, &index);

printf("Maximal consecutive sum of length %d is %d, "

"starting at array index %d\n", l, max, index);

return 0;

}

// return maximal sum of length 'len' in array 'arr'

int maxSum\_l(int arr[], int size, int len, int \*index\_p)

{

int i,sum,max=0;

for (i=0;i<size-len+1;i++)

{

sum = sum\_l(arr,size,i,len);

if(sum>max){

max = sum;

\*index\_p = i;

}

//printf("%d: max=%d\n", i,max);

}

return max;

}

// return sum of consecutive array elements,

// starting from 'start' and calculate 'len' elements

int sum\_l(int arr[], int size, int start, int len)

{

int j, sum=0;

for (j=0;j<len;j++)

sum += arr[start+j];

/\*

printf("%d",arr[start]);

for (j=1;j<len;j++)

printf("+%d",arr[start+j]);

printf("=%d\n",sum);

\*/

return sum;

}