

CS 2073
Computer Programming with Engineering Applications
Assignment 7
Due Wednesday December 5

1. (100 pts) Write a program that implements the following functions

```
int partialsum(int data[], int start, int end)
void partialprint(int data[], int start, int end)
```

The function *partialsum* returns the sum of the array elements with indexes $[start - end]$ and the function *partialprint* prints the array elements with indexes $[start - end]$. Create an array of 15 random numbers in the range $[10 - 19]$. Read the value of *start* and *end* from user and compute and print the partial sum and print the partial array.

11	17	14	10	19	14	18	18	12	14	15	15	11	17	11
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
\longleftrightarrow					\longleftrightarrow									
17+14+10+19=60					12+14+15+15+11+17=84									

Figure 1: Example

An example is given in figure 1. Random numbers you generate should be same as the ones in the figure. When the *partialsum* function is called with $start = 1$ and $end = 4$, the partial sum is 60 and the function returns 60. The array elements included in the partial sum is shown with an arrow in the figure. When *partialprint* function is called with $start = 1$ and $end = 4$, it should print all array elements with index $[1 - 4]$. Sample execution of the program is given below

```
Enter starting and ending index
1 4
Partial Array Output:
1 17
2 14
3 10
4 19
Sum from data[1] to data[4] is 60
```

Submit your program electronically using the blackboard system

The program you submit should be your own work. Cheating will be reported to office of academic integrity. Both the copier and copiee will be held responsible.