

```

1 // Q109: Write a program to take an integer array arr and an integer k as inputs. Print the maximum sum of all the subarrays of size k.
2
3 /*
4 Sample Test Cases:
5 Input 1:
6 arr[100, 200, 300, 400] = , k = 2
7 Output 1:
8 700
9
10 Input 2:
11 arr[1, 4, 2, 10, 23, 3, 1, 0, 20] = , k = 4
12 Output 2:
13 39
14
15 Input 3:
16 arr[100, 200, 300, 400] = , k = 1
17 Output 3:
18 400
19
20 */
21
22 #include <stdio.h>
23
24 int main() {
25     int n, k, i, j, sum, maxSum;
26     printf("Enter number of elements: ");
27     scanf("%d", &n);
28
29     int arr[n];
30     printf("Enter %d elements: ", n);
31     for (i = 0; i < n; i++)
32         scanf("%d", &arr[i]);
33
34     printf("Enter k: ");
35     scanf("%d", &k);
36
37     maxSum = -1000000; // very small number
38
39     for (i = 0; i <= n - k; i++) {
40         sum = 0;
41         for (j = i; j < i + k; j++)
42             sum += arr[j];
43
44         if (sum > maxSum)
45             maxSum = sum;
46     }
47
48     printf("%d\n", maxSum);
49     return 0;
50 }

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\drago\OneDrive\Desktop\C H.W> gcc .\abc.c
 PS C:\Users\drago\OneDrive\Desktop\C H.W> ./a.exe
 Enter number of elements: 4
 Enter 4 elements: 100 200 300 400
 Enter k: 2
 700
 PS C:\Users\drago\OneDrive\Desktop\C H.W> gcc .\abc.c
 PS C:\Users\drago\OneDrive\Desktop\C H.W> ./a.exe
 Enter number of elements: 9
 Enter 9 elements: 1 4 2 10 23 3 1 0 20
 Enter k: 4
 39
 PS C:\Users\drago\OneDrive\Desktop\C H.W> gcc .\abc.c
 PS C:\Users\drago\OneDrive\Desktop\C H.W> ./a.exe
 Enter number of elements: 4
 Enter 4 elements: 100 200 300 400
 Enter k: 1
 400
 PS C:\Users\drago\OneDrive\Desktop\C H.W>