

// MSS DAC Approach

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
#include <limits.h>
```

```
int main()
```

```
{
```

```
    int A[] = {-2,-5,6,-2,-3,1,5,-6}; // Array Value
```

```
    int n = 8; // Array Index = 8
```

```
    int low = 0;
```

```
    int high = n-1;
```

```
    int maxCrossingSum(int A[], int l, int mid, int r){
```

```
        int sum = 0;
```

```
        int lsum = INT_MIN;
```

```
        for(int i=mid;i>=0;i--){
```

```
            sum=sum+A[i];
```

```
            if(sum>lsum){
```

```
                lsum = sum;
```

```

    }
}
sum = 0;
int rsum = INT_MIN;
for(int i = mid+1; i<=r;i++){
    sum=sum+A[i];
    if(sum>rsum){
        rsum = sum;
    }
}
return (lsum+rsum);
}

```

```

int maxSubarraySum(int A[], int low, int high){
    if(low == high){
        return A[high];
    } // Checking if index have more then one value
    else{
        int mid = low + (high - low)/2;
        int left_sum = maxSubarraySum(A,low,mid);

```

```

        int right_sum = maxSubarraySum(A,mid+1,high);
        int crossing_Sum =
maxCrossingSum(A,low,mid,high);
        return (left_sum,right_sum,crossing_Sum);
    }
}

```

```

int result = maxSubarraySum(A,low,high);
printf("%d",result);

```

```

return 0;

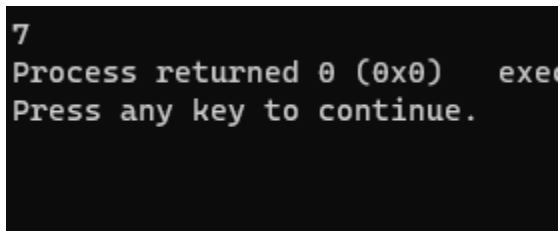
```

```

}

```

// Output:



```

7
Process returned 0 (0x0)   exe
Press any key to continue.

```

// Time Complexity: ($n \log n$)