

```

1  #include <iostream>
2  #include <math.h>
3  using namespace std;
4  void printarray (int a [] ,int size )
5  {
6      cout << "printing .... " << endl ;
7      for (int i = 0 ; i < size ; i ++ )
8      {
9          cout << a [i] << " " ;
10     }
11     cout << endl ;
12 }
13 float arrayaverage (int a [] , int size )
14 {
15     int sum = 0 ;
16     for (int i=0 ; i< size ; i ++ )
17     {
18         sum+=a[i] ;
19     }
20     return sum *1.0 / size ;
21 }
22 int maxarray (int a [] , int size )
23 {
24     int max = a [0] ;
25     for (int i = 0 ; i < size ; i++)
26     {
27         if (a [i] > max )
28             max = a [i] ;
29     }
30     return max ;
31 }
32
33 int minarray (int a [] , int size )
34 {
35     int min = a [0] ;
36     for (int i = 0 ; i < size ; i++)
37     {
38         if (a [i] < min )
39             min = a [i] ;
40     }
41     return min;
42 }
43 void sortarray(int a[] , int size)
44 {
45     for (int i = 0 ; i < size-1 ; i ++ )    // Iterations
46     {
47         for (int j = 0 ; j<size-1 ; j ++ ) // comparison in each iteration , it can be also j<size -1 - i .
48         {
49             if (a [j] > a [j+1] )
50             {
51                 int temp = a[j] ; a[j] = a [j+1] ; a[j+1] = temp ;
52             }
53         }
54     }
55
56
57 }
58
59 int medianarray ( int a [] , int size )
60 {
61     sortarray ( a , size ) ;
62     return a [size / 2 ] ;
63 }
64
65 int main ()
66 {
67     const int size = 7 ;
68     int x[size] = {6,5,3,1,2,4 ,7} ;
69
70     cout << "Array average = " << arrayaverage ( x , size ) << endl ;
71     cout << "minimum = " << minarray(x , size) << endl ;
72     cout << "maximum = " << maxarray(x , size) << endl ;
73     printarray ( x , size ) ;
74     sortarray ( x , size ) ;
75     printarray ( x , size ) ;
76     cout << "Median = " << medianarray (x , size ) << endl ;
77     return 0;
78 }

```