**Every Question should be implemented as a function with input array and size [if given] as parameter, no main and any other work is needed.**

**Question # 1**

You have an array A of size N populated with three different integer values in increasing sorting order. Every integer value is there for at-least one time. You have to design a function that will find the middle value of the three and then get the count of that middle value in this array.   
  
**You can’t count the integer values in this array.  
You can’t copy integer values to another array.**   
**You have to design generic solution.   
  
void find\_value\_count(int A[], int N);**

**A: {1, 1, 1, 1, 7, 7, 7, 8, 8, 8, 8, 8}  
middle value is : 7  
Its count is : 3  
  
A: {11, 27, 27, 27, 27, 27, 27, 27, 8}  
middle value is : 27  
Its count is : 7  
  
A: {3, 3, 3, 3, 3, 3, 3, 3, 3, 14, 33, 33, 33, 33, 33, 33}  
middle value is : 14  
Its count is : 1**

**Question # 2**You have an array A of size N populated with four different integer values [at-least every value is there for once]. Your task is to design a function that will find all the four integer values present in this array.   
  
**You can access this array for once.  
You have to design generic solution.   
  
void find\_values(int A[], int N);**

**Question # 3**

You have an array A of size N populated with integer values from the set {1, 2, 3 and 4}. Your task is to design a function that will sort the array in increasing order.   
  
**You can’t count the integer values in this array.  
You can’t copy integer values to another array.**   
**You have to design generic solution.   
  
void sort\_values(int A[], int N);**