S.No: 2	Exp. Name: ***Write a C program to find second largest for the given numbers***	Date:2023-03-31

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Aim:

Design a C program which finds the `second maximum number` among the given one dimensional array of elements.

```
Sample Input and Output:Enter how many values you want to read : 6
Enter the value of a[0] : 45
Enter the value of a[1] : 24
Enter the value of a[2] : 23
Enter the value of a[3] : 65
Enter the value of a[4] : 78
Enter the value of a[5] : 42
The second largest element of the array = 65
```

Note: Do use the **printf()** function with a **newline** character (\n) at the end.

Source Code:

second_large.c

```
#include<stdio.h>
void main()
{
   int i,n,a[20],max1=0,max2=0;
   printf("Enter how many values you want to read : ");
   scanf("%d",&n);
   for(i=0;i<n;i++)
   {
      printf("Enter the value of a[%d] : ",i);
      scanf("%d",&a[i]);

   }
   for(i=0;i<n;i++)
   {
      if(max1<a[i])
      {
         max2=max1;
         max1=a[i];
      }
      else if(a[i]>max2&&a[i]<max1)
      {
         max2=a[i];
      }
   }
   printf("The second largest element of the array = %d\n",max2);
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter how many values you want to read : 4

```
Enter the value of a[0] :  32
Enter the value of a[1] :  25
Enter the value of a[2] :  69
Enter the value of a[3] :  47
The second largest element of the array = 47
```