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Roll No:- 66 **Class:-** SYBCA **Batch:-**
Practical 11 :- Implementation of Quick sort.

```
#include<iostream.h>
#include<conio.h>
class Quicksort
{
  public:
    int *a;
    int n;
  Quicksort()
  {
    cout<<"\nEnter the size of the array:- ";
    cin>>n;
    a=new int[n];
  }
  void getdata()
  {
   cout<<"\nEnter"<<n<<"elements:- ";
   for(int i=0;i<n;i++)
   cin>>a[i];
  }
  void putdata()
  {
   for(int i=0;i<n;i++)
   cout<<"  "<<a[i];
  }
  void sort(int low , int high)
  {
   int j;
   if(low<high)
   {
     j=partition(low,high);
     sort(low,j-1);
     sort(j+1,high);
   }
  }
  int partition(int low ,int high)
```

```
 {
   int pivot,temp,i,j;
   pivot=a[high];
   i=low;
   j=low;
   while (i<=high)
   {
    if(a[i] > pivot)
    {
         i++;
    }
    else
    {
          temp=a[i];
          a[i]=a[j];
          a[j]=temp;

          i++;
          j++;
        }
   }
   return (j-1);
}
};
void main()
{
 clrscr();
 Quicksort q;
 q.getdata();
 cout<<"\nThe elemnets before sorting are:- ";
 q.putdata();
 q.sort(0,q.a-1);
 cout<<"\nThe elements after sorting are:- ";
 q.putdata();
 getch();
}
```

OUTPUT:

```
Enter the size of the array:- 5
Enter the  5 no of unsorted elemets for sorting:-
```

55 23 999 38 248

The elemmets before sorting are:-

55
23
999
38
248

The elements after sorting are:-

23
38
55
248
999