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Roll No:- 66 **Class:-** SYBCA **Batch:-**
Practical 10 :- Implementation of Insertion sort.

```
#include<iostream.h>
#include<conio.h>
class insertionsort
{
  public:
     int *a,n;
  insertionsort()
  {
    cout<<"\nEnterr the size of the array:- ";
    cin>>n;
    a=new int[n];
  }
 void getdata()
 {
   cout<<"\nEnter the unsorted elements for sorting:- ";
   for(int i=0;i<n;i++)
   cin>>a[i];
 }
 void putdata()
 {
    for(int i=0;i<n;i++)
    cout<<" "<<a[i];
 }
 void insertion()
 {
   int i,j,key;
   for(i=1;i<n;i++)
   {
     key=a[i];
     j=i-1;
     while(j>=0 && a[j]>key)
     {
       a[j+1]=a[j];
       j--;
     }
```

```
    a[j+1]=key;
   }
 }
};
void main()
{
 clrscr();
 insertionsort i;
 i.getdata();
 cout<<"\nBefore:- ";
 i.putdata();
 i.insertion();
 cout<<"\nAfter:- ";
 i.putdata();
 getch();
}
```

OUTPUT:-

```
Enter the size of the array:- 5
Enter the 5 no of unsorted elemets for sorting:-
   56     12     34     89     64

Before:-
56
12
34
89
64

After:-

12
34
56
64
89
```