**Batch:- B3 Date:-06/02/24**

**Name –Om Chandrakant Mahajan Roll No. 88**

**Practical Name:- Insertion sort Practical No.2**

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#include<iostream>

using namespace std;

class InsertionSort

{

public:

int \*a,n;

InsertionSort()

{

cout<<"\n Enter the size of Array";

cin>>n;

a=new int[n];

}

void getData()

{

cout<<"\n Enter"<<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 insertion()

{

int i,j,key;

for(int 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;

}

}

};

int main()

{

InsertionSort i;

i.getData();

cout<<"\n Before Sorting";

i.putData();

i.insertion();

cout<<"\n After Sorting";

i.putData();

return 0;

}

**Output –**

Enter the size of Array 3

Enter 3 elements 20 18 27

Before Sorting 20 18 27

After Sorting 18 20 27