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Unit:1

Program: Insertion Sort

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#include<iostream>

using namespace std;

int main()

{

int n,i;

int A[10];

int tmp,loc;

cout<<"\*\*\*Insertion Sort\*\*\*"<<endl<<endl;

cout<<"Enter the size of array:";

cin>>n;

cout<<"Enter the elements of array:";

for(i=0;i<n;i++)

{

cin>>A[i];

}

cout<<endl<<endl;

cout<<"Orignal Array is:";

for(i=0;i<n;i++)

{

cout<<A[i]<<" ";

}

//Insertion Sort

for (i=1;i<n;i++)//iteration loop

{

tmp=A[i];

loc=i-1;

while(tmp<A[loc] && loc>=0){

A[loc+1]=A[loc];

loc=loc-1;

}//end of while

//At this stage a space is available for tmp

A[loc+1]=tmp;

}//end of for i loop

cout<<endl<<"Sorted Array:";

for (i=0;i<n;i++){

cout<<A[i]<<" ";

}

}

**Output:**