# Program:

// UR12CS135 - Shell Sort

#include<iostream>

using namespace std;

void read(int a[10],int n)

{

cout << "reading\n";

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

cin >> a[i];

}

void display(int a[10],int n)

{

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

cout << a[i] <<" ";

}

void shellsort(int a[10],int n)

{

int gap=n/2;

do

{

int swap;

do

{

swap=0;

for(int i=0;i < n-gap;i++)

if(a[i] > a[i+gap])

{

int t=a[i];

a[i]=a[i+gap];

a[i+gap]=t;

swap=1;

}

}

while(swap);

}

while(gap=gap/2);

}

void main()

{

int a[10];

int n;

cout<<"UR12CS135 - Shell Sort\n\nEnter : ";

cin>>n;

read(a,n);

cout<<"Before sorting\n";

display(a,n);

shellsort(a,n);

cout<<"\n\nAfter sorting\n";

display(a,n);

}

# Output:

