import java.io.\*;

import java.util.\*;

class Main

{

public static void main(String args[])throws IOException

{

InputStreamReader isr = new InputStreamReader(System.in);

BufferedReader br = new BufferedReader(isr);

Random r = new Random();

int i,j,k,key,n;

System.out.println("Enter no. of elements");

n=Integer.parseInt(br.readLine());

int a[]= new int[n];

int aorig[] = new int[n];

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

{

a[k] = r.nextInt(100);

}

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

{

aorig[k] = a[k];

}

for(i=1;i<n;i++)

{

key = a[i];

j = i-1;

while(j>=0 && a[j]>key)

{

a[j+1] = a[j];

j=j-1;;

}

a[j+1] = key;

}

System.out.println("Unsorted array");

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

{

System.out.print(aorig[k] + " ");

}

System.out.println();

System.out.println("Sorted array");

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

{

System.out.print(a[k] + " ");

}

}

}