//implementation of sorting algorithms

#include<stdio.h>

int main(){

int a[10],k;

for(int i=0;i<10;i++){

    printf("enter element %d :",i+1);

    scanf("%d",&a[i]);

}

for(int i=0;i<10;i++){

    for(int j=0;j<10;j++){

        if(a[j]<=a[j+1]){

            k=a[j];

            a[j]=a[j+1];

            a[j+1]=k;

        }}}

for(int i=0;i<10;i++){

    printf("%d \n",a[i]);

}

    return 0;

}

OUTPUT->

enter element 1 :20

enter element 2 :1

enter element 3 :89

enter element 4 :76

enter element 5 :20

enter element 6 :54

enter element 7 :23

enter element 8 :10

enter element 9 :9

enter element 10 :100

100

89

76

54

23

20

20

10

9

1

//Implementing sorting algorithm using recursion

#include<stdio.h>

//to sort an array using recursion

void sorting(int arr[],int x){

      for(int j=0;j<=4;j++){

for(int i=0;i<4;i++){

    if(arr [i]>arr[i+1]){

     x = arr[i];

    arr[i]=arr[i+1];

    arr[i+1] = x;}

    else{

    printf(" ");

    }

}}}

void traversalarr(int arr[]){

    for(int i=0;i<4;i++){

        printf("%d  ",arr[i]);

    }

}

int main(){

static int a;

int array[4] = {1,3,4,3};

traversalarr(array );

printf("\n");

sorting(array,a);

traversalarr(array);

printf("\n");

    return 0;

}

OUTPUT->

enter element 1 :20

enter element 2 :1

enter element 3 :89

enter element 4 :76

enter element 5 :20

enter element 6 :54

enter element 7 :23

enter element 8 :10

enter element 9 :9

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