Find Union and Intersection of two sorted arrays

#include<iostream>

using namespace std;

void unionOfArray(int a[10],int b[10],int m,int n)

{

int i=0,j=0;

int c[20],p=0;

while(i<m && j<n)

{

if(a[i]<b[j])

{

c[p] = a[i];

i++;

p++;

}

else if(a[i]>b[j])

{

c[p] = b[j];

p++;

j++;

}

else

{

c[p] = a[i];

p++;

i++;

j++;

}

}

while(i<m)

{

c[p] = a[i];

i++;

p++;

}

while(j<n)

{

c[p] = b[j];

p++;

j++;

}

cout<<"\nThe union of the sorted array is\n";

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

cout<<c[i]<<" ";

}

void intersectionOfArray(int a[10],int b[10],int m,int n)

{

int i=0,j=0,k=0;

int c[20];

while(i<m && j<n)

{

if(a[i] == b[j])

{

c[k] = a[i];

i++;

j++;

k++;

}

else if(a[i]>b[j])

j++;

else

i++;

}

cout<<"\nThe intersection of the array is \n";

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

cout<<c[i]<<" ";

}

int main()

{

int a[10],b[10];

int m,n;

cout<<"Enter the number of elements of the first array ";

cin>>m;

cout<<"\nEnter the number of elements of the second array ";

cin>>n;

cout<<"\nEnter the elements of the first sorted array ";

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

{

cin>>a[i];

}

cout<<"\nEnter the elements of the second sorted array ";

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

{

cin>>b[i];

}

unionOfArray(a,b,m,n);

intersectionOfArray(a,b,m,n);

return 0;

}