#include<iostream.h>

#include<conio.h>

void display(int x[],int s)

{

int i;

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

cout<<x[i]<<"\t";

}

void merge(int ar[],int br[],int m, int n)

{

int cr[50];

int ctrA=0,ctrB=n-1,ctrC=0;

while(ctrA<m&&ctrB>=0)

{

if(ar[ctrA]<br[ctrB])

{

cr[ctrC]=ar[ctrA];

ctrA++;

ctrC++;

}

else

{

cr[ctrC]=br[ctrB];

ctrB--;

ctrC++;

}

}

while(ctrA<m)

{

cr[ctrC]=ar[ctrA];

ctrC++;

ctrA++;

}

while(ctrB>=0)

{

cr[ctrC]=br[ctrB];

ctrB--;

ctrC++;

}

cout<<"\nMerged Array:\n";

display(cr,m+n);

}

void main()

{

clrscr();

int ar[50],br[50],m,n;

cout<<"\nEnter the size of first array and second array: ";

cin>>m>>n;

cout<<"\n Enter "<<m<<" elements of A(Ascending Order): ";

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

cin>>ar[i];

cout<<"\n Enter "<<n<<" elements of B(Descending Order): ";

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

cin>>br[j];

cout<<"\nArray A:\n";

display(ar,m);

cout<<"\nArray B:\n";

display(br,n);

merge(ar,br,m,n);

getch();

}