PROGRAM TO MERGE TWO SORTED ARRAY

#include <stdio.h>

int main()

{

int ar1[20], ar2[20], ar3[20];

int m,n,i,j,k;

printf("Enter number of elements in array 1 : ");

scanf("%d",&m);

printf("Enter array 1 in sorted order : ");

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

{

scanf("%d",&ar1[i]);

}

printf("Enter number of elements in array 2 : ");

scanf("%d",&n);

printf("Enter array 2 in sorted order : ");

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

{

scanf("%d",&ar2[i]);

}

i=j=k=0;

while(i<m&&j<n)

{

if(ar1[i]>ar2[j])

{

ar3[k++]= ar2[j++];

}

else

{

ar3[k++]=ar1[i++];

}

}

while(i<m)

{

ar3[k++]=ar1[i++];

}

while(j<n)

{

ar3[k++]= ar2[j++];

}

printf("\nFirst array is :");

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

{

printf("%d",ar1[i]);

}

printf("\nSecond array is :");

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

{

printf("%d",ar2[i]);

}

printf("\nMerged array is :");

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

{

printf("%d",ar3[i]);

}

return 0;

}

