Program:

#include <stdio.h>

#include<conio.h>

void main()

{

int arr1[100], arr2[100], merge[200];

int s1, s2, s3;

int i,j,k;

int i;

printf("Enter the size of first array : ");

scanf("%d", &s1);

printf("Enter elements in first array : ");

for(i=0; i<s1; i++)

{

scanf("%d", &arr1[i]);

}

printf("\nEnter the size of second array : ");

scanf("%d", &s2);

printf("Enter elements in second array : ");

for(i=0; i<s2; i++)

{

scanf("%d", &arr2[i]);

}

s3 = s1 + s2;

i = 0;

j = 0;

for(k=0; k < s3; k++)

{

if(i >= s1 || j >= s2)

{

break;

}

if(arr1[i] < arr2[j])

{

merge[k] = arr1[i];

i++;

}

else

{

merge[k] = arr2[j];

j++;

}

}

while(i< s1)

{

merge[k] = arr1[i];

k++;

i++;

}

while(j < s2)

{

merge[k] = arr2[j];

k++;

j++;

}

printf("\nMerged two sorted array : ");

for(i=0; i<s3; i++)

{

printf("%d\t", merge[i]);

}

getch();

}

Result:

