

Program To Merge Two Sorted Array

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#include <stdio.h>

int main()
{
    int array1[50],array2[50],array3[100],m,n,i,j,k=0;
    printf("Enter the size of array 1:");
    scanf("%d",&m);
    printf("Enter sorted elements of array 1:");
    for(i=0;i<m;i++)
    {
        scanf("%d",&array1[i]);
    }
    printf("Enter the size of array 2:");
    scanf("%d",&n);
    printf("Enter sorted elements of array 2:");
    for(i=0;i<n;i++)
    {
        scanf("%d",&array2[i]);
    }
    i=j=0;
    while(i<m && j<n)
    {
        if(array1[i] < array2[j])
        {
            array3[k]=array1[i];
            i++;
            k++;
        }
        else
        {
            array3[k]=array2[j];
            j++;
            k++;
        }
    }
    while(i < m)
    {
        array3[k]=array1[i];
        i++;
        k++;
    }
    while(j < n)
    {
        array3[k]=array2[j];
        j++;
        k++;
    }
    printf("\nAfter Merging:");
    for(i=0;i<m+n;i++)
    {
        printf("\n%d",array3[i]);
    }
}
```

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    }  
    return 0;  
}
```