

Program to merge two sorted arrays.

```
#include <stdio.h>

int main()
{
    int arr1[50],arr2[40],res[55],m,n,j,i,k;
    printf("enter size of array 1:");
    scanf("%d", &m);
    printf("enter array1 in sorted order");
    for(i=0;i<m;i++)
    {
        scanf("%d", &arr1[i]);
    }
    printf("enter size of array 2 :");
    scanf("%d", &n);
    printf("enter array2 in sorted order :");
    for(j=0;j<n;j++)
    {
        scanf("%d", &arr2[j]);
    }
    i=j=k=0;
    while(i<m && j<n)
    {
```

```
        if(arr1[i]>arr2[j])
        {
            res[k++]=arr2[j++];
        }
        else
        {
            res[k++]=arr1[i++];
        }
    }
while(i<m)
{
    res[k++]= arr1[i++];
}
while(j<n)
{
    res[k++]= arr2[j++];
}
printf("\n array1 is :");
for(i=0;i<m;i++)
{
    printf("%d", arr1[i]);
}
printf("\n array2 is :");
for(i=0;i<n;i++)
{
    printf("%d",arr2[i]);
}
```

```
}

printf("\n merged array is :");

for(i=0;i<m+n;i++)
{
    printf("%d", res[i]);
}
return 0;
}
```

Output

```
Reading symbols from a.out...done.
(gdb)
(gdb) run
Starting program: /home/a.out
enter size of array 1:3
enter array1 in sorted order 4 6 8
enter size of array 2 :6
enter array2 in sorted order :1 3 5 7 9 11
enter array1 in sorted order 4 6 8

merged array is :1345678911[Inferior 1 (process 9474) exited normally]
```