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//42\* C Program to to merge two sorted array in ascending order *\

# include < stdio.h >
int main( )
{
int a[50], b[25], i, j, k=1, s, m, n, temp ;
printf(" Enter the number of element in first array : ") ;
scanf("%d",&m) ;
printf("\n Enter the element of first array in ascending order : \n") ;
for ( i = 1 ; i <= m ; i++)
scanf("%d",&a[i]) ;

printf(" Enter the number of element in second array : ") ;
scanf("%d",&n) ;
printf("\n Enter the element of second array in ascending order : \n") ;
for ( i = 1 ; i <= n ; i++)
scanf("%d",&b[i]) ;
s = m + n ;

for ( i = m+1 ; i <= s ; i++)
{
a[i] = b[k] ;
for ( j = 1 ; j <= s ; j++)
{
if ( a[j] >= a[i] )
{
temp = a[i] ;
a[j] = a[i] ;
a[i] = temp ;
}
}
k = k+1 ;
}
printf("\n Array after merging : \n") ;
for ( i = 1 ; i <= s ; i++)
printf("%d \t",a[i]) ;
return ( 0 ) ;
}
```

Output of Program:

Input: arr1[] = { 1, 3, 4, 5}, arr2[] = {2, 4, 6, 8}

Output: arr3[] = {1, 2, 3, 4, 4, 5, 6, 8}

Input: arr1[] = { 5, 8, 9}, arr2[] = {4, 7, 8}

Output: arr3[] = {4, 5, 7, 8, 8, 9}