

Merge Sort

Program

CPP

```
#include <iostream.h>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int arr1[5], arr2[5], arr3[10], i, j, k;
```

```
    cout << "Enter elements of Array 1 in ascending order";
```

```
    for (i=0; i<5; i++)
```

```
    {
```

```
        cin >> arr1[i];
```

```
    }
```

```
    cout << "Enter the elements of Array 2 in ascending  
order" << endl;
```

```
    for (j=0; j<5; j++)
```

```
    {
```

```
        cin >> arr2[j];
```

```
    }
```

```
    i=0;
```

```
    j=0;
```

```
    k=0;
```

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```
while (i < 5 && j < 5)
```

```
{
```

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

```
    {
```

```
        arr3[k++] = arr1[i++];
```

```
    }
```

```
    else
```

```
    {
```

```
        arr3[k++] = arr2[j++];
```

```
    }
```

```
}
```

```
while (i < 5)
```

```
{
```

```
    arr3[k++] = arr1[i++];
```

```
}
```

```
while (j < 5)
```

```
{
```

```
    arr3[k++] = arr2[j++];
```

```
}
```

```
cout << " Array After Merging is: " << endl;
```

```
for (int i=0; i<10; i++)  
{
```

```
    cout << arr3[i] << " ";
```

```
}
```

```
return 0;
```

```
}
```

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