

```

1: //Merging 2 Arrays
2:
3: #include<stdio.h>
4:
5: struct Array
6: {
7:     int A[10];
8:     int size;
9:     int length;
10: };
11:
12: void Display(struct Array arr)
13: {
14:     int i;
15:     printf("\nElements are\n");
16:     for(i=0;i<arr.length;i++)
17:         printf("%d ",arr.A[i]);
18: }
19:
20: struct Array* Merge(struct Array *arr1,struct Array *arr2)
21: {
22:     int i,j,k;
23:     i=j=k=0;
24:
25:     struct Array *arr3=(struct Array *)malloc(sizeof(struct Array));
26:
27:     while(i<arr1->length && j<arr2->length)
28:     {
29:         if(arr1->A[i]<arr2->A[j])
30:             arr3->A[k++]=arr1->A[i++];
31:         else
32:             arr3->A[k++]=arr2->A[j++];
33:     }
34:     for(;i<arr1->length;i++)
35:         arr3->A[k++]=arr1->A[i];
36:     for(;j<arr2->length;j++)
37:         arr3->A[k++]=arr2->A[j];
38:     arr3->length=arr1->length+arr2->length;
39:     arr3->size=10;

```

```
40:
41:   return arr3;
42: }
43: int main()
44: {
45:   struct Array arr1={{2,9,21,28,35},10,5};
46:   struct Array arr2={{2,3,16,18,28},10,5};
47:   struct Array *arr3;
48:   arr3=Merge(&arr1,&arr2);
49:   Display(*arr3);
50:
51:   return 0;
52: }
```