

```

void MergeList(SqList La, SqList Lb, SqList *Lc) {
    InitList_Sq(Lc);
    int i = 1, j = 1;
    int k = 0;

    ElemType ai, bj;
    int La_len = ListLength_Sq(La);
    int Lb_len = ListLength_Sq(Lb);

    // While not empty
    while((i<=La_len) && (j<=Lb_len)) {
        GetElem_Sq(La, i, &ai);
        GetElem_Sq(Lb, j, &bj);
        if(ai<=bj) {
            ListInsert_Sq(Lc, ++k, ai);
            ++i;
        } else {
            ListInsert_Sq(Lc, ++k, bj);
            ++j;
        }
    }

    // If one SqList is longer, insert the rest into Lc
    while(i<=La_len) {
        GetElem_Sq(La, i++, &ai);
        ListInsert_Sq(Lc, ++k, ai);
    }
    while(i<=Lb_len) {
        GetElem_Sq(Lb, i++, &bj);
        ListInsert_Sq(Lc, ++k, bj);
    }
}

```

1.

La		Lb		Lc	
1	[0]	4	[0]	-	[0]
2	[1]	5	[1]		
3	[2]				

2.

La		Lb		Lc	
1	[0]	4	[0]	1	[0]
2	[1]	5	[1]		
3	[2]				

3.

La		Lb		Lc	
1	[0]	4	[0]	1	[0]
2	[1]	5	[1]	2	[1]
3	[2]				

4.

La		Lb		Lc	
1	[0]	4	[0]	1	[0]
2	[1]	5	[1]	2	[1]
3	[2]			3	[2]

5.

La		Lb		Lc	
1	[0]	4	[0]	1	[0]
2	[1]	5	[1]	2	[1]
3	[2]			3	[2]
				4	[3]

6.

La		Lb		Lc	
1	[0]	4	[0]	1	[0]
2	[1]	5	[1]	2	[1]
3	[2]			3	[2]
				4	[3]
				5	[1]