**Project of Merge Sort**

**1) Stages of Sorting according to Merge Sort**

[16,21,11,8,12,22]

[16,21,11,8,12,22]

Step 1: [16,21,11] [8,12,22}

Step 2: [16] [21,11] [8] [12,22]

Step 3: [16], [21] [11] [8] [12] [22]

Step 4: [16] [11,21] [8] [12,22]

Step 5: [11,16,21] [8,12,22]

Step 6: [8,11,12,16,21,22}]

**[16**

**2) Big-0 =** O(n log(n))

Merge Sort uses the merging method and performs at O(n log (n)) in the best, average, and worst case.

