

```
1 package usingInnerClassObject;
2
3 public class SortedInsertion {
4
5     Node head;
6
7     class Node{
8         int data;
9         Node next;
10
11         //creating a constructor for assigning value to data and next as null
12         Node(int data){
13             this.data = data;
14             next = null;
15         }
16
17     } // closing of class Node
18
19     void sortedInsert(Node new_node) {
20
21         Node curr = head;
22
23         if(head == null || head.data > new_node.data) {
24             new_node.next = head;
25             head = new_node;
26         }
27         else { // we are trying to find out the appropriate place for insertion of the
new_node
28             while(curr.next!=null && curr.next.data < new_node.data) { // traversing till we
find the place to insert
29                 curr = curr.next; // incrementing by single step
30             }
31             //insert the new node just after the while loop breaks.
32             new_node.next = curr.next;
33             curr.next = new_node;
34         }
35     }
36
37
38     void printList() {
39         Node curr=head;
40
41         while(curr!=null) {
42             System.out.print(curr.data + " -> ");
43             curr = curr.next;
44         }
45         System.out.print("NULL");
46     }
47
48 }
49
50 public static void main(String[] args) {
51
52     SortedInsertion si = new SortedInsertion();
53     SortedInsertion.Node new_node =si.new Node(2);
54     si.sortedInsert(new_node);
55 }
```

```
56      //inserting the second value into the list
57      new_node =si.new Node(5);
58      si.sortedInsert(new_node);
59
60      //3rd value
61      new_node =si.new Node(7);
62      si.sortedInsert(new_node);
63
64      //4th value
65      new_node =si.new Node(10);
66      si.sortedInsert(new_node);
67
68      //5th value
69      new_node =si.new Node(15);
70      si.sortedInsert(new_node);
71
72
73      // here we are trying to add a new_node as 9
74      new_node =si.new Node(9);
75      si.sortedInsert(new_node);
76
77
78      si.printList();
79
80
81
82
83
84
85
86  }
87
88 }
89
```