

**GIT Department of Computer Engineering**

**CSE 222/505 - Spring 2020**

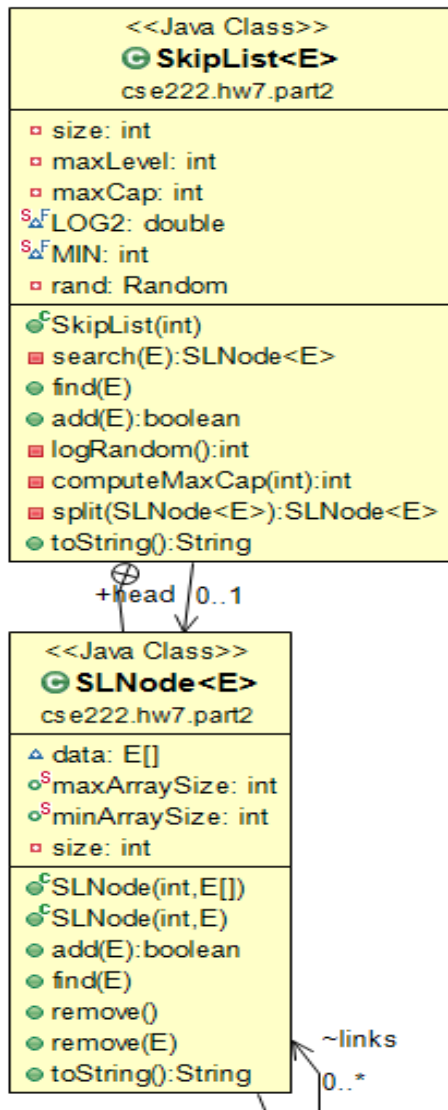
**Homework #7 Part 2 Report**

**Murat YILDIZ**

**1801042004**

NOTE: Remove part is missing

## CLASS DIAGRAM



## TEST CASES

TEST ID	Scenario	Test Data	Expected Results	Actual Results	Pass/Fail
TEST01	Add 50 random element (0-100)		Successfully Added	As Expected	Pass
TEST02	Add randomly	82	Successfully Added	As Expected	Pass

TEST03	Add randomly	41	Successfully Added	As Expected	Pass
TEST04	Add randomly	70	Successfully Added	As Expected	Pass
TEST05	Add randomly	25	Successfully Added	As Expected	Pass
TEST06	Add randomly	8	Successfully Added	As Expected	Pass

## RUNNING AND RESULTS

### TEST01

Please enter maximum size(order) of array: 4

After add 50 random (0-100) element |

```
Head: 5 --> [0, null, null] |1|
        --> [1, 2, 4] |1|
        --> [5, 8, 14] |3|
        --> [15, null, null] |2|
        --> [24, 27, 28] |2|
        --> [30, null, null] |1|
        --> [31, 35, 36] |1|
        --> [43, 45, null] |1|
        --> [46, 51, null] |5|
        --> [52, 55, null] |2|
        --> [58, 60, null] |2|
        --> [61, 63, 67] |1|
        --> [68, null, null] |1|
        --> [70, 73, null] |2|
        --> [74, 79, null] |1|
        --> [80, 81, null] |4|
        --> [82, null, null] |2|
        --> [83, 85, null] |2|
        --> [86, 91, null] |1|
        --> [93, 96, null] |1|
        --> [97, 98, null] |2|
```

## TEST02

Before add 82

```
Head: 5 --> [0, null, null] |1|
        --> [1, 2, 4] |1|
        --> [5, 6, null] |3|
        --> [8, 10, null] |1|
        --> [11, 13, 14] |2|
        --> [15, null, null] |2|
        --> [17, 19, null] |1|
        --> [22, 23, null] |1|
        --> [24, 27, 28] |2|
        --> [30, null, null] |1|
        --> [31, 32, 34] |1|
        --> [35, null, null] |1|
        --> [36, 37, 40] |1|
        --> [43, 44, 45] |1|
        --> [46, 47, 48] |5||
        --> [49, 51, null] |3|
        --> [52, 55, 57] |2|
        --> [58, 59, 60] |2|
        --> [61, null, null] |1|
        --> [63, 66, 67] |1|
        --> [68, null, null] |1|
        --> [70, 73, null] |2|
        --> [74, 77, 79] |1|
        --> [80, 81, null] |4|
        --> [82, null, null] |2|
        --> [83, 84, 85] |2|
        --> [86, 87, null] |1|
        --> [88, 89, null] |2|
        --> [90, 91, null] |3|
        --> [93, 96, null] |1|
        --> [97, 98, null] |2|
```

After add 82

```
Head: 5 --> [0, null, null] |1|
        --> [1, 2, 4] |1|
        --> [5, 6, null] |3|
        --> [8, 10, null] |1|
        --> [11, 13, 14] |2|
        --> [15, null, null] |2|
        --> [17, 19, null] |1|
        --> [22, 23, null] |1|
        --> [24, 27, 28] |2|
        --> [30, null, null] |1|
        --> [31, 32, 34] |1|
        --> [35, null, null] |1|
        --> [36, 37, 40] |1|
        --> [43, 44, 45] |1|
        --> [46, 47, 48] |5|
        --> [49, 51, null] |3|
        --> [52, 55, 57] |2|
        --> [58, 59, 60] |2|
        --> [61, null, null] |1|
        --> [63, 66, 67] |1|
        --> [68, null, null] |1|
        --> [70, 73, null] |2|
        --> [74, 77, 79] |1|
        --> [80, 81, null] |4|
        --> [82, null, null] |2|
        --> [83, 84, 85] |2|
        --> [86, 87, null] |1|
        --> [88, 89, null] |2|
        --> [90, 91, null] |3|
        --> [93, 96, null] |1|
        --> [97, 98, null] |2|
```

## TEST03

```
Before add 41
Head: 5 --> [0, null, null] |1|
--> [1, 2, 4] |1|
--> [5, 6, null] |3|
--> [8, 10, null] |1|
--> [11, 13, 14] |2|
--> [15, null, null] |2|
--> [17, 19, null] |1|
--> [22, 23, null] |1|
--> [24, 27, 28] |2|
--> [30, null, null] |1|
--> [31, 32, 34] |1|
--> [35, null, null] |1|
--> [36, 37, 40] |1|
--> [43, 44, 45] |1|
--> [46, 47, 48] |5|
--> [49, 51, null] |3|
--> [52, 55, 57] |2|
--> [58, 59, 60] |2|
--> [61, null, null] |1|
--> [63, 66, 67] |1|
--> [68, null, null] |1|
--> [70, 73, null] |2|
--> [74, 77, 79] |1|
--> [80, 81, null] |4|
--> [82, null, null] |2|
--> [83, 84, 85] |2|
--> [86, 87, null] |1|
--> [88, 89, null] |2|
--> [90, 91, null] |3|
--> [93, 96, null] |1|
--> [97, 98, null] |2|
```

After add 41

```
Head: 6 --> [0, null, null] |1|
        --> [1, 2, 4] |1|
        --> [5, 6, null] |3|
        --> [8, 10, null] |1|
        --> [11, 13, 14] |2|
        --> [15, null, null] |2|
        --> [17, 19, null] |1|
        --> [22, 23, null] |1|
        --> [24, 27, 28] |2|
        --> [30, null, null] |1|
        --> [31, 32, 34] |1|
        --> [35, null, null] |1|
        --> [36, null, null] |1|
        --> [37, 40, 41] |1|
        --> [43, 44, 45] |1|
        --> [46, 47, 48] |5|
        --> [49, 51, null] |3|
        --> [52, 55, 57] |2|
        --> [58, 59, 60] |2|
        --> [61, null, null] |1|
        --> [63, 66, 67] |1|
        --> [68, null, null] |1|
        --> [70, 73, null] |2|
        --> [74, 77, 79] |1|
        --> [80, 81, null] |4|
        --> [82, null, null] |2|
        --> [83, 84, 85] |2|
        --> [86, 87, null] |1|
        --> [88, 89, null] |2|
        --> [90, 91, null] |3|
        --> [93, 96, null] |1|
        --> [97, 98, null] |2|
```

## TEST04

```
Before add 70
Head: 6 --> [0, null, null] |1|
--> [1, 2, 4] |1|
--> [5, 6, null] |3|
--> [8, 10, null] |1|
--> [11, 13, 14] |2|
--> [15, null, null] |2|
--> [17, 19, null] |1|
--> [22, 23, null] |1|
--> [24, 27, 28] |2|
--> [30, null, null] |1|
--> [31, 32, 34] |1|
--> [35, null, null] |1|
--> [36, null, null] |1|
--> [37, 40, 41] |1|
--> [43, 44, 45] |1|
--> [46, 47, 48] |5|
--> [49, 51, null] |3|
--> [52, 55, 57] |2|
--> [58, 59, 60] |2|
--> [61, null, null] |1|
--> [63, 66, 67] |1|
--> [68, null, null] |1|
--> [70, 73, null] |2|
--> [74, 77, 79] |1|
--> [80, 81, null] |4|
--> [82, null, null] |2|
--> [83, 84, 85] |2|
--> [86, 87, null] |1|
--> [88, 89, null] |2|
--> [90, 91, null] |3|
--> [93, 96, null] |1|
--> [97, 98, null] |2|
```



After add 70

```
Head: 6 --> [0, null, null] |1|
        --> [1, 2, 4] |1|
        --> [5, 6, null] |3|
        --> [8, 10, null] |1|
        --> [11, 13, 14] |2|
        --> [15, null, null] |2|
        --> [17, 19, null] |1|
        --> [22, 23, null] |1|
        --> [24, 27, 28] |2|
        --> [30, null, null] |1|
        --> [31, 32, 34] |1|
        --> [35, null, null] |1|
        --> [36, null, null] |1|
        --> [37, 40, 41] |1|
        --> [43, 44, 45] |1|
        --> [46, 47, 48] |5|
        --> [49, 51, null] |3|
        --> [52, 55, 57] |2|
        --> [58, 59, 60] |2|
        --> [61, null, null] |1|
        --> [63, 66, 67] |1|
        --> [68, null, null] |1|
        --> [70, 73, null] |2|
        --> [74, 77, 79] |1|
        --> [80, 81, null] |4|
        --> [82, null, null] |2|
        --> [83, 84, 85] |2|
        --> [86, 87, null] |1|
        --> [88, 89, null] |2|
        --> [90, 91, null] |3|
        --> [93, 96, null] |1|
        --> [97, 98, null] |2|
```

## TEST05

```
Before add 25
Head: 6 --> [0, null, null] |1|
        --> [1, 2, 4] |1|
        --> [5, 6, null] |3|
        --> [8, 10, null] |1|
        --> [11, 13, 14] |2|
        --> [15, null, null] |2|
        --> [17, 19, null] |1|
        --> [22, 23, null] |1|
        --> [24, 27, 28] |2|
        --> [30, null, null] |1|
        --> [31, 32, 34] |1|
        --> [35, null, null] |1|
        --> [36, null, null] |1|
        --> [37, 40, 41] |1|
        --> [43, 44, 45] |1|
        --> [46, 47, 48] |5|
        --> [49, 51, null] |3|
        --> [52, 55, 57] |2|
        --> [58, 59, 60] |2|
        --> [61, null, null] |1|
        --> [63, 66, 67] |1|
        --> [68, null, null] |1|
        --> [70, 73, null] |2|
        --> [74, 77, 79] |1|
        --> [80, 81, null] |4|
        --> [82, null, null] |2|
        --> [83, 84, 85] |2|
        --> [86, 87, null] |1|
        --> [88, 89, null] |2|
        --> [90, 91, null] |3|
        --> [93, 96, null] |1|
        --> [97, 98, null] |2|
```

After add 25

```
Head: 6 --> [0, null, null] |1|
        --> [1, 2, 4] |1|
        --> [5, 6, null] |3|
        --> [8, 10, null] |1|
        --> [11, 13, 14] |2|
        --> [15, null, null] |2|
        --> [17, 19, null] |1|
        --> [22, 23, null] |1|
        --> [24, 25, null] |2|
        --> [27, 28, null] |2|
        --> [30, null, null] |1|
        --> [31, 32, 34] |1|
        --> [35, null, null] |1|
        --> [36, null, null] |1|
        --> [37, 40, 41] |1|
        --> [43, 44, 45] |1|
        --> [46, 47, 48] |5|
        --> [49, 51, null] |3|
        --> [52, 55, 57] |2|
        --> [58, 59, 60] |2|
        --> [61, null, null] |1|
        --> [63, 66, 67] |1|
        --> [68, null, null] |1|
        --> [70, 73, null] |2|
        --> [74, 77, 79] |1|
        --> [80, 81, null] |4|
        --> [82, null, null] |2|
        --> [83, 84, 85] |2|
        --> [86, 87, null] |1|
        --> [88, 89, null] |2|
        --> [90, 91, null] |3|
        --> [93, 96, null] |1|
        --> [97, 98, null] |2|
```

## TEST06

```
Before add 8
Head: 6 --> [0, null, null] |1|
        --> [1, 2, 4] |1|
        --> [5, 6, null] |3|
        --> [8, 10, null] |1|
        --> [11, 13, 14] |2|
        --> [15, null, null] |2|
        --> [17, 19, null] |1|
        --> [22, 23, null] |1|
        --> [24, 25, null] |2|
        --> [27, 28, null] |2|
        --> [30, null, null] |1|
        --> [31, 32, 34] |1|
        --> [35, null, null] |1|
        --> [36, null, null] |1|
        --> [37, 40, 41] |1|
        --> [43, 44, 45] |1|
        --> [46, 47, 48] |5|
        --> [49, 51, null] |3|
        --> [52, 55, 57] |2|
        --> [58, 59, 60] |2|
        --> [61, null, null] |1|
        --> [63, 66, 67] |1|
        --> [68, null, null] |1|
        --> [70, 73, null] |2|
        --> [74, 77, 79] |1|
        --> [80, 81, null] |4|
        --> [82, null, null] |2|
        --> [83, 84, 85] |2|
        --> [86, 87, null] |1|
        --> [88, 89, null] |2|
        --> [90, 91, null] |3|
        --> [93, 96, null] |1|
        --> [97, 98, null] |2|
```

After add 8

```
Head: 6 --> [0, null, null] |1|
        --> [1, 2, 4] |1|
        --> [5, 6, null] |3|
        --> [8, 10, null] |1|
        --> [11, 13, 14] |2|
        --> [15, null, null] |2|
        --> [17, 19, null] |1|
        --> [22, 23, null] |1|
        --> [24, 25, null] |2|
        --> [27, 28, null] |2|
        --> [30, null, null] |1|
        --> [31, 32, 34] |1|
        --> [35, null, null] |1|
        --> [36, null, null] |1|
        --> [37, 40, 41] |1|
        --> [43, 44, 45] |1|
        --> [46, 47, 48] |5|
        --> [49, 51, null] |3|
        --> [52, 55, 57] |2|
        --> [58, 59, 60] |2|
        --> [61, null, null] |1|
        --> [63, 66, 67] |1|
        --> [68, null, null] |1|
        --> [70, 73, null] |2|
        --> [74, 77, 79] |1|
        --> [80, 81, null] |4|
        --> [82, null, null] |2|
        --> [83, 84, 85] |2|
        --> [86, 87, null] |1|
        --> [88, 89, null] |2|
        --> [90, 91, null] |3|
        --> [93, 96, null] |1|
        --> [97, 98, null] |2|
```