Autograder Results

Results | Code

Hash Map - Empty Buckets - Test 1 (0.0/3.0)

```
Description : This is the same test as in the PDF Examples
Input:
empty_buckets()
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL [(key10: 1000)]
27: SLL [(key11: 1100) -> (key0: 0)]
28: SLL [(key1: 100)]
29: SLL [(key2: 200)]
30: SLL [(key3: 300)]
31: SLL [(key4: 400)]
32: SLL [(key5: 500)]
33: SLL [(key6: 600)]
34: SLL [(key7: 700)]
35: SLL [(key8: 800)]
36: SLL [(key9: 900)]
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []

Expected:
Return: 39
capacity 50, size 12
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
```

```
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL [(key10: 1000)]
27: SLL [(key11: 1100) -> (key0: 0)]
28: SLL [(key1: 100)]
29: SLL [(key2: 200)]
30: SLL [(key3: 300)]
31: SLL [(key4: 400)]
32: SLL [(key5: 500)]
33: SLL [(key6: 600)]
34: SLL [(key7: 700)]
35: SLL [(key8: 800)]
36: SLL [(key9: 900)]
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []

Student:
Return: 38

capacity 50, size 12
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL [(key10: 1000)]
27: SLL [(key0: 0) -> (key11: 1100)]
28: SLL [(key1: 100)]
```

```
29: SLL [(key2: 200)]
30: SLL [(key3: 300)]
31: SLL [(key4: 400)]
32: SLL [(key5: 500)]
33: SLL [(key6: 600)]
34: SLL [(key7: 700)]
35: SLL [(key8: 800)]
36: SLL [(key9: 900)]
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []


Test Failed: False is not true
```

Hash Map - Empty Buckets - Test 2 (0.0/3.0)

```
Description : This is a test with random values
Input:
empty_buckets()
0: SLL []
1: SLL []
2: SLL []
3: SLL [(key947: 880)]
4: SLL []
5: SLL []
6: SLL [(key292: 476)]
7: SLL []
8: SLL [(key177: 134) -> (key94: -292)]
9: SLL []

Expected:
Return: 7
capacity 10, size 4
0: SLL []
1: SLL []
2: SLL []
3: SLL [(key947: 880)]
4: SLL []
5: SLL []
6: SLL [(key292: 476)]
7: SLL []
8: SLL [(key177: 134) -> (key94: -292)]
9: SLL []

Student:
Return: 6

capacity 10, size 4
0: SLL []
1: SLL []
2: SLL []
3: SLL [(key947: 880)]
4: SLL []
5: SLL []
6: SLL [(key292: 476)]
7: SLL []
8: SLL [(key94: -292) -> (key177: 134)]
9: SLL []


Test Failed: False is not true
```

Hash Map - Table Load - Test 1 (0.0/2.5)

```
Description : This is the same test as in PDF Examples
Input:
table_load()
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL []
29: SLL []
30: SLL []
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []
50: SLL []
51: SLL []
52: SLL []
53: SLL []
54: SLL []
55: SLL []
56: SLL []
57: SLL []
58: SLL []
59: SLL []
60: SLL []
61: SLL []
62: SLL []
63: SLL []
64: SLL []
65: SLL []
66: SLL []
67: SLL []
```

```
68: SLL []
69: SLL []
70: SLL []
71: SLL []
72: SLL []
73: SLL []
74: SLL []
75: SLL []
76: SLL []
77: SLL []
78: SLL [(key1: 10)]
79: SLL []
80: SLL []
81: SLL []
82: SLL []
83: SLL []
84: SLL []
85: SLL []
86: SLL []
87: SLL []
88: SLL []
89: SLL []
90: SLL []
91: SLL []
92: SLL []
93: SLL []
94: SLL []
95: SLL []
96: SLL []
97: SLL []
98: SLL []
99: SLL []

Expected:
Return: 0.01
capacity 100, size 1
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL []
29: SLL []
30: SLL []
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
```

```
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []
50: SLL []
51: SLL []
52: SLL []
53: SLL []
54: SLL []
55: SLL []
56: SLL []
57: SLL []
58: SLL []
59: SLL []
60: SLL []
61: SLL []
62: SLL []
63: SLL []
64: SLL []
65: SLL []
66: SLL []
67: SLL []
68: SLL []
69: SLL []
70: SLL []
71: SLL []
72: SLL []
73: SLL []
74: SLL []
75: SLL []
76: SLL []
77: SLL []
78: SLL [(key1: 10)]
79: SLL []
80: SLL []
81: SLL []
82: SLL []
83: SLL []
84: SLL []
85: SLL []
86: SLL []
87: SLL []
88: SLL []
89: SLL []
90: SLL []
91: SLL []
92: SLL []
93: SLL []
94: SLL []
95: SLL []
96: SLL []
97: SLL []
98: SLL []
99: SLL []

Student:
Return: 0.0

capacity 100, size 1
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
```

```
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL []
29: SLL []
30: SLL []
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []
50: SLL []
51: SLL []
52: SLL []
53: SLL []
54: SLL []
55: SLL []
56: SLL []
57: SLL []
58: SLL []
59: SLL []
60: SLL []
61: SLL []
62: SLL []
63: SLL []
64: SLL []
65: SLL []
66: SLL []
67: SLL []
68: SLL []
69: SLL []
70: SLL []
71: SLL []
72: SLL []
73: SLL []
74: SLL []
75: SLL []
76: SLL []
77: SLL []
78: SLL [(key1: 10)]
79: SLL []
80: SLL []
81: SLL []
82: SLL []
83: SLL []
```

```
84: SLL []
85: SLL []
86: SLL []
87: SLL []
88: SLL []
89: SLL []
90: SLL []
91: SLL []
92: SLL []
93: SLL []
94: SLL []
95: SLL []
96: SLL []
97: SLL []
98: SLL []
99: SLL []


Test Failed: False is not true
```

Hash Map - Table Load - Test 2 (0.0/2.5)

```
Description : This is a test with random values
Input:
table_load()
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL [(key633: -645)]
6: SLL []
7: SLL []
8: SLL []
9: SLL []

Expected:
Return: 0.1
capacity 10, size 1
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL [(key633: -645)]
6: SLL []
7: SLL []
8: SLL []
9: SLL []

Student:
Return: 0.0

capacity 10, size 1
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL [(key633: -645)]
6: SLL []
7: SLL []
8: SLL []
9: SLL []


Test Failed: False is not true
```

Hash Map - Clear - Test 1 (0.0/2.5)

```
Description : This is the same test as in PDF Examples
Input:
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL []
29: SLL []
30: SLL []
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []
50: SLL []
51: SLL []
52: SLL []
53: SLL []
54: SLL []
55: SLL []
56: SLL []
57: SLL []
58: SLL []
59: SLL []
60: SLL []
61: SLL []
62: SLL []
63: SLL []
64: SLL []
65: SLL []
66: SLL []
67: SLL []
68: SLL []
69: SLL []
70: SLL []
71: SLL []
```

```
72: SLL []
73: SLL []
74: SLL []
75: SLL []
76: SLL []
77: SLL []
78: SLL [(key1: 30)]
79: SLL [(key2: 20)]
80: SLL []
81: SLL []
82: SLL []
83: SLL []
84: SLL []
85: SLL []
86: SLL []
87: SLL []
88: SLL []
89: SLL []
90: SLL []
91: SLL []
92: SLL []
93: SLL []
94: SLL []
95: SLL []
96: SLL []
97: SLL []
98: SLL []
99: SLL []

Expected:
Return: None
capacity 100, size 0
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL []
29: SLL []
30: SLL []
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
```

```
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []
50: SLL []
51: SLL []
52: SLL []
53: SLL []
54: SLL []
55: SLL []
56: SLL []
57: SLL []
58: SLL []
59: SLL []
60: SLL []
61: SLL []
62: SLL []
63: SLL []
64: SLL []
65: SLL []
66: SLL []
67: SLL []
68: SLL []
69: SLL []
70: SLL []
71: SLL []
72: SLL []
73: SLL []
74: SLL []
75: SLL []
76: SLL []
77: SLL []
78: SLL []
79: SLL []
80: SLL []
81: SLL []
82: SLL []
83: SLL []
84: SLL []
85: SLL []
86: SLL []
87: SLL []
88: SLL []
89: SLL []
90: SLL []
91: SLL []
92: SLL []
93: SLL []
94: SLL []
95: SLL []
96: SLL []
97: SLL []
98: SLL []
99: SLL []

Student:
Return: None
HashMap has the wrong size
capacity 100, size 2
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
```

```
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL []
29: SLL []
30: SLL []
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []
50: SLL []
51: SLL []
52: SLL []
53: SLL []
54: SLL []
55: SLL []
56: SLL []
57: SLL []
58: SLL []
59: SLL []
60: SLL []
61: SLL []
62: SLL []
63: SLL []
64: SLL []
65: SLL []
66: SLL []
67: SLL []
68: SLL []
69: SLL []
70: SLL []
71: SLL []
72: SLL []
73: SLL []
74: SLL []
75: SLL []
76: SLL []
77: SLL []
78: SLL [(key1: 30)]
79: SLL [(key2: 20)]
80: SLL []
81: SLL []
82: SLL []
83: SLL []
84: SLL []
85: SLL []
86: SLL []
87: SLL []
```

```
88: SLL []
89: SLL []
90: SLL []
91: SLL []
92: SLL []
93: SLL []
94: SLL []
95: SLL []
96: SLL []
97: SLL []
98: SLL []
99: SLL []


Test Failed: False is not true
```

Hash Map - Clear - Test 2 (0.0/2.5)

```
Description : This is a test with random values
Input:
0: SLL [(key287: -564) -> (key386: -296)]
1: SLL [(key756: 530) -> (key116: -952) -> (key701: 499) -> (key459: 344)]
2: SLL [(key612: -249) -> (key98: 244)]
3: SLL []
4: SLL [(key371: 221) -> (key362: 823) -> (key560: -974) -> (key54: 731)]
5: SLL []
6: SLL [(key292: -484) -> (key472: -451) -> (key47: 348)]
7: SLL [(key617: 182) -> (key84: 668) -> (key365: 909) -> (key941: 762) -> (k
8: SLL [(key302: 89) -> (key582: 240) -> (key348: 609) -> (key438: 409) -> (k
9: SLL []

Expected:
Return: None
capacity 10, size 0
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []

Student:
Return: Error. HashMap was not the same before clear()
capacity 10, size 25
0: SLL [(key386: -296) -> (key287: -564)]
1: SLL [(key459: 344) -> (key701: 499) -> (key116: -952) -> (key756: 530)]
2: SLL [(key98: 244) -> (key612: -249)]
3: SLL []
4: SLL [(key54: 731) -> (key560: -974) -> (key362: 823) -> (key371: 221)]
5: SLL []
6: SLL [(key47: 348) -> (key472: -451) -> (key292: -484)]
7: SLL [(key455: -572) -> (key941: 762) -> (key365: 909) -> (key84: 668) -> (
8: SLL [(key609: -27) -> (key438: 409) -> (key348: 609) -> (key582: 240) -> (
9: SLL []


Test Failed: False is not true
```

Hash Map - Put - Test 1 (0.0/5.0)

```
Description : This is the same test as in PDF Examples
Input:
put('str11', 1100)
0: SLL [(str7: 700)]
1: SLL [(str8: 800)]
```

```
2: SLL [(str9: 900)]
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL []
29: SLL []
30: SLL []
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL [(str10: 1000)]
43: SLL [(str0: 0)]
44: SLL [(str1: 100)]
45: SLL [(str2: 200)]
46: SLL [(str3: 300)]
47: SLL [(str4: 400)]
48: SLL [(str5: 500)]
49: SLL [(str6: 600)]

Expected:
Return: None
capacity 50, size 12
0: SLL [(str7: 700)]
1: SLL [(str8: 800)]
2: SLL [(str9: 900)]
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
```

```
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL []
29: SLL []
30: SLL []
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL [(str10: 1000)]
43: SLL [(str11: 1100) -> (str0: 0)]
44: SLL [(str1: 100)]
45: SLL [(str2: 200)]
46: SLL [(str3: 300)]
47: SLL [(str4: 400)]
48: SLL [(str5: 500)]
49: SLL [(str6: 600)]

Student:
Return: None
HashMap has the wrong contents.
capacity 50, size 12
0: SLL [(str7: 700)]
1: SLL [(str8: 800)]
2: SLL [(str9: 900)]
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL []
29: SLL []
30: SLL []
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL [(str10: 1000)]
```

```
43: SLL [(str0: 0) -> (str11: 1100)]
44: SLL [(str1: 100)]
45: SLL [(str2: 200)]
46: SLL [(str3: 300)]
47: SLL [(str4: 400)]
48: SLL [(str5: 500)]
49: SLL [(str6: 600)]


Test Failed: False is not true
```

Hash Map - Put - Test 2 (0.0/5.0)

```
Description : This is a test with random values
Input:
put('key104', 867)
0: SLL [(key304: 270)]
1: SLL [(key350: -992)]
2: SLL []
3: SLL []
4: SLL [(key605: -675)]
5: SLL []
6: SLL [(key139: 28)]
7: SLL [(key734: -645)]
8: SLL [(key302: -624)]
9: SLL [(key538: -977)]

Expected:
Return: None
capacity 10, size 8
0: SLL [(key304: 270)]
1: SLL [(key350: -992)]
2: SLL []
3: SLL []
4: SLL [(key605: -675)]
5: SLL []
6: SLL [(key139: 28)]
7: SLL [(key734: -645)]
8: SLL [(key104: 867) -> (key302: -624)]
9: SLL [(key538: -977)]

Student:
Return: None
HashMap has the wrong contents.
capacity 10, size 8
0: SLL [(key304: 270)]
1: SLL [(key350: -992)]
2: SLL []
3: SLL []
4: SLL [(key605: -675)]
5: SLL []
6: SLL [(key139: 28)]
7: SLL [(key734: -645)]
8: SLL [(key302: -624) -> (key104: 867)]
9: SLL [(key538: -977)]


Test Failed: False is not true
```

Hash Map - Contains Key - Test 1 (0.0/3.0)

```
Description : This is the same test as in PDF Examples
Input:
contains_key('key1')
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
```

```
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL [(key1: 10)]
29: SLL [(key2: 20)]
30: SLL [(key3: 30)]
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []

Expected:
Return: True
capacity 50, size 3
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
```

```
27: SLL []
28: SLL [(key1: 10)]
29: SLL [(key2: 20)]
30: SLL [(key3: 30)]
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []

Student:
Return:
Crashed with error

capacity 50, size 3
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL [(key1: 10)]
29: SLL [(key2: 20)]
30: SLL [(key3: 30)]
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
```

```
46: SLL []
47: SLL []
48: SLL []
49: SLL []


Test Failed: False is not true
```

Hash Map - Contains Key - Test 2 (0.0/3.0)

```
Description : This is a test with random values
Input:
contains_key('key4741028')
0: SLL []
1: SLL [(key800: -581) -> (key873: 242)]
2: SLL [(key595: 450) -> (key720: 485)]
3: SLL [(key703: -920)]
4: SLL [(key452: 416) -> (key533: 930) -> (key579: -424)]
5: SLL [(key408: 127) -> (key444: 792)]
6: SLL [(key869: -793)]
7: SLL [(key905: -343) -> (key48: -150)]
8: SLL [(key582: 885) -> (key474: 761)]
9: SLL []

Expected:
Return: False
capacity 10, size 15
0: SLL []
1: SLL [(key800: -581) -> (key873: 242)]
2: SLL [(key595: 450) -> (key720: 485)]
3: SLL [(key703: -920)]
4: SLL [(key452: 416) -> (key533: 930) -> (key579: -424)]
5: SLL [(key408: 127) -> (key444: 792)]
6: SLL [(key869: -793)]
7: SLL [(key905: -343) -> (key48: -150)]
8: SLL [(key582: 885) -> (key474: 761)]
9: SLL []

Student:
Return:
Crashed with error

capacity 10, size 15
0: SLL []
1: SLL [(key873: 242) -> (key800: -581)]
2: SLL [(key720: 485) -> (key595: 450)]
3: SLL [(key703: -920)]
4: SLL [(key579: -424) -> (key533: 930) -> (key452: 416)]
5: SLL [(key444: 792) -> (key408: 127)]
6: SLL [(key869: -793)]
7: SLL [(key48: -150) -> (key905: -343)]
8: SLL [(key474: 761) -> (key582: 885)]
9: SLL []


Test Failed: False is not true
```

Hash Map - Get - Test 1 (0.0/2.5)

```
Description : This is the same test as in PDF Examples
Input:
get('key1')
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
```

```
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL [(key1: 10)]
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL []
29: SLL []

Expected:
Return: 10
capacity 30, size 1
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL [(key1: 10)]
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL []
29: SLL []

Student:
Return: None

capacity 30, size 1
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
```

```
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL [(key1: 10)]
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL []
29: SLL []


Test Failed: False is not true
```

Hash Map - Get - Test 2 (0.0/2.5)

```
Description : This is a test with random values
Input:
get('key418')
0: SLL []
1: SLL []
2: SLL []
3: SLL [(key983: -575)]
4: SLL [(key434: 230) -> (key858: 919)]
5: SLL [(key804: -342)]
6: SLL [(key418: 459)]
7: SLL []
8: SLL [(key636: 804)]
9: SLL [(key231: -138) -> (key420: -430)]

Expected:
Return: 459
capacity 10, size 8
0: SLL []
1: SLL []
2: SLL []
3: SLL [(key983: -575)]
4: SLL [(key434: 230) -> (key858: 919)]
5: SLL [(key804: -342)]
6: SLL [(key418: 459)]
7: SLL []
8: SLL [(key636: 804)]
9: SLL [(key231: -138) -> (key420: -430)]

Student:
Return: None

capacity 10, size 8
0: SLL []
1: SLL []
2: SLL []
3: SLL [(key983: -575)]
4: SLL [(key858: 919) -> (key434: 230)]
5: SLL [(key804: -342)]
6: SLL [(key418: 459)]
7: SLL []
8: SLL [(key636: 804)]
9: SLL [(key420: -430) -> (key231: -138)]


Test Failed: False is not true
```

Hash Map - Remove - Test 1 (0.0/5.0)

```
Description : This is the same test as in PDF Examples
Input:
get('key1')
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL [(key1: 10)]
29: SLL []
30: SLL []
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []

Expected:
Return: 10
capacity 50, size 1
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
```

```
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL [(key1: 10)]
29: SLL []
30: SLL []
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []

Student:
Return: None

capacity 50, size 1
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL []
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL [(key1: 10)]
29: SLL []
30: SLL []
31: SLL []
32: SLL []
33: SLL []
34: SLL []
35: SLL []
36: SLL []
```

```
37: SLL []
38: SLL []
39: SLL []
40: SLL []
41: SLL []
42: SLL []
43: SLL []
44: SLL []
45: SLL []
46: SLL []
47: SLL []
48: SLL []
49: SLL []


Test Failed: False is not true
```

Hash Map - Remove - Test 2 (0.0/5.0)

```
Description : This is a test with random values
Input:
remove('key604')
0: SLL []
1: SLL []
2: SLL []
3: SLL [(key299: -753) -> (key604: -358)]
4: SLL []
5: SLL []
6: SLL [(key526: -755) -> (key580: -453)]
7: SLL []
8: SLL [(key780: -994) -> (key609: -241)]
9: SLL [(key736: -541)]

Expected:
Return: None
capacity 10, size 6
0: SLL []
1: SLL []
2: SLL []
3: SLL [(key299: -753)]
4: SLL []
5: SLL []
6: SLL [(key526: -755) -> (key580: -453)]
7: SLL []
8: SLL [(key780: -994) -> (key609: -241)]
9: SLL [(key736: -541)]

Student:
Return: None
HashMap has the wrong size
capacity 10, size 7
0: SLL []
1: SLL []
2: SLL []
3: SLL [(key604: -358) -> (key299: -753)]
4: SLL []
5: SLL []
6: SLL [(key580: -453) -> (key526: -755)]
7: SLL []
8: SLL [(key609: -241) -> (key780: -994)]
9: SLL [(key736: -541)]


Test Failed: False is not true
```

Hash Map - Resize Table - Test 1 (0.0/5.0)

```
Description : This is the same test as in PDF Examples
Input:
resize_table('30')
```

```
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL [(key1: 10)]
19: SLL []

Expected:
Return: None
capacity 30, size 1
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
16: SLL []
17: SLL []
18: SLL [(key1: 10)]
19: SLL []
20: SLL []
21: SLL []
22: SLL []
23: SLL []
24: SLL []
25: SLL []
26: SLL []
27: SLL []
28: SLL []
29: SLL []

Student:
Return: None
HashMap has the wrong capacity
capacity 20, size 1
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL []
6: SLL []
7: SLL []
8: SLL []
9: SLL []
10: SLL []
11: SLL []
12: SLL []
13: SLL []
14: SLL []
15: SLL []
```

```
16: SLL []
17: SLL []
18: SLL [(key1: 10)]
19: SLL []


Test Failed: False is not true
```

Hash Map - Resize Table - Test 2 (0.0/5.0)

```
Description : This is a test with random values
Input:
resize_table(-100)
0: SLL [(key421: 146) -> (key41: 363) -> (key241: -625)]
1: SLL []
2: SLL [(key360: 765)]
3: SLL [(key974: 591)]
4: SLL [(key416: 278) -> (key759: 281) -> (key768: -34)]
5: SLL [(key246: -333)]
6: SLL [(key283: -53) -> (key797: 314) -> (key472: -643)]
7: SLL []
8: SLL []
9: SLL []

Expected:
Return: None
capacity 10, size 12
0: SLL [(key421: 146) -> (key41: 363) -> (key241: -625)]
1: SLL []
2: SLL [(key360: 765)]
3: SLL [(key974: 591)]
4: SLL [(key416: 278) -> (key759: 281) -> (key768: -34)]
5: SLL [(key246: -333)]
6: SLL [(key283: -53) -> (key797: 314) -> (key472: -643)]
7: SLL []
8: SLL []
9: SLL []

Student:
Return: None
HashMap has the wrong contents.
capacity 10, size 12
0: SLL [(key241: -625) -> (key41: 363) -> (key421: 146)]
1: SLL []
2: SLL [(key360: 765)]
3: SLL [(key974: 591)]
4: SLL [(key768: -34) -> (key759: 281) -> (key416: 278)]
5: SLL [(key246: -333)]
6: SLL [(key472: -643) -> (key797: 314) -> (key283: -53)]
7: SLL []
8: SLL []
9: SLL []


Test Failed: False is not true
```

Hash Map - Get Keys - Test 1 (0.0/2.5)

```
Description : These are the same tests as in the PDF Examples
Input:
get_keys()
0: SLL []
1: SLL [(160: 1600) -> (110: 1100)]
2: SLL []
3: SLL [(170: 1700) -> (120: 1200)]
4: SLL []
5: SLL [(180: 1800) -> (130: 1300)]
6: SLL []
7: SLL [(190: 1900) -> (140: 1400)]
8: SLL []
```

```
9: SLL [(150: 1500) -> (100: 1000)]

Expected:
Return: ['160', '110', '170', '120', '180', '130', '190', '140', '150', '100
capacity 10, size 10
0: SLL []
1: SLL [(160: 1600) -> (110: 1100)]
2: SLL []
3: SLL [(170: 1700) -> (120: 1200)]
4: SLL []
5: SLL [(180: 1800) -> (130: 1300)]
6: SLL []
7: SLL [(190: 1900) -> (140: 1400)]
8: SLL []
9: SLL [(150: 1500) -> (100: 1000)]

Student:
Return: []
Expected 10 keys, Student 0 keys

capacity 10, size 10
0: SLL []
1: SLL [(110: 1100) -> (160: 1600)]
2: SLL []
3: SLL [(120: 1200) -> (170: 1700)]
4: SLL []
5: SLL [(130: 1300) -> (180: 1800)]
6: SLL []
7: SLL [(140: 1400) -> (190: 1900)]
8: SLL []
9: SLL [(100: 1000) -> (150: 1500)]


Test Failed: False is not true
```

Hash Map - Get Keys - Test 2 (0.0/2.5)

```
Description : This is a test with random values
Input:
get_keys()
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL [(key453: 898)]
6: SLL []
7: SLL []
8: SLL []
9: SLL []

Expected:
Return: ['key453']
capacity 10, size 1
0: SLL []
1: SLL []
2: SLL []
3: SLL []
4: SLL []
5: SLL [(key453: 898)]
6: SLL []
7: SLL []
8: SLL []
9: SLL []

Student:
Return: []
Expected 1 keys, Student 0 keys

capacity 10, size 1
0: SLL []
1: SLL []
```

```
2: SLL []
3: SLL []
4: SLL []
5: SLL [(key453: 898)]
6: SLL []
7: SLL []
8: SLL []
9: SLL []


Test Failed: False is not true
```

test_2_min_heap (unittest.loader._FailedTest) (0.0/0.0)

```
Test Failed: Failed to import test module: test_2_min_heap
Traceback (most recent call last):
  File "/usr/lib/python3.6/unittest/loader.py", line 428, in _find_test_path
    module = self._get_module_from_name(name)
  File "/usr/lib/python3.6/unittest/loader.py", line 369, in _get_module_fror
    __import__(name)
  File "/autograder/source/tests/test_2_min_heap.py", line 8, in <module>
    from min_heap import MinHeap as heap_student, MinHeapException
ModuleNotFoundError: No module named 'min_heap'
```

test_3_avl (unittest.loader._FailedTest) (0.0/0.0)

```
Test Failed: Failed to import test module: test_3_avl
Traceback (most recent call last):
  File "/usr/lib/python3.6/unittest/loader.py", line 428, in _find_test_path
    module = self._get_module_from_name(name)
  File "/usr/lib/python3.6/unittest/loader.py", line 369, in _get_module_fror
    __import__(name)
  File "/autograder/source/tests/test_3_avl.py", line 7, in <module>
    from avl import AVL as avl_student
ModuleNotFoundError: No module named 'avl'
```

STUDENT

Dov Sherman

AUTOGRADER SCORE

0.0 / 110.0

FAILED TESTS

Hash Map - Empty Buckets - Test 1 (0.0/3.0)
Hash Map - Empty Buckets - Test 2 (0.0/3.0)
Hash Map - Table Load - Test 1 (0.0/2.5)
Hash Map - Table Load - Test 2 (0.0/2.5)
Hash Map - Clear - Test 1 (0.0/2.5)
Hash Map - Clear - Test 2 (0.0/2.5)
Hash Map - Put - Test 1 (0.0/5.0)
Hash Map - Put - Test 2 (0.0/5.0)
Hash Map - Contains Key - Test 1 (0.0/3.0)
Hash Map - Contains Key - Test 2 (0.0/3.0)

Hash Map - Get - Test 1 (0.0/2.5)
Hash Map - Get - Test 2 (0.0/2.5)
Hash Map - Remove - Test 1 (0.0/5.0)
Hash Map - Remove - Test 2 (0.0/5.0)
Hash Map - Resize Table - Test 1 (0.0/5.0)
Hash Map - Resize Table - Test 2 (0.0/5.0)
Hash Map - Get Keys - Test 1 (0.0/2.5)
Hash Map - Get Keys - Test 2 (0.0/2.5)

PASSED TESTS

test_2_min_heap (unittest.loader._FailedTest) (0.0/0.0)
test_3_avl (unittest.loader._FailedTest) (0.0/0.0)