

Enter the input filename: HW5 Test Input1.txt

HashQP with the int key has:

Color: Magenta = FF00FF
Color: Black = 000000
Color: Brown = A52A2A
Color: Light Blue = ADD8E6
Color: Olive = 808000
Color: Yellow = FFFF00
Color: Red = FF0000
Color: Silver = C0C0C0
Color: Maroon = 800000
Color: Cyan = 00FFFF
Color: Blue = 0000FF
Color: Gray = 808080
Color: Dark Blue = 0000A0
Color: Purple = 800080
Color: Orange = FFA500
Color: Green = 008000
Color: White = FFFFFFFF
Color: Lime = 00FF00

In the HashQP class:

Table Size = 97
Number of entries = 18
Load factor = 0.18556701030927836
Number of collisions = 5
Longest Collision Run = 2

HashSC #1 with the String key has:

Color: Brown = A52A2A
Color: Cyan = 00FFFF
Color: Black = 000000
Color: Maroon = 800000
Color: Olive = 808000
Color: Green = 008000
Color: Light Blue = ADD8E6
Color: Gray = 808080
Color: Purple = 800080
Color: Lime = 00FF00
Color: Magenta = FF00FF
Color: Dark Blue = 0000A0
Color: Blue = 0000FF
Color: Orange = FFA500
Color: Red = FF0000
Color: Silver = C0C0C0
Color: White = FFFFFFFF
Color: Yellow = FFFF00

In the HashSC class:

Table Size = 97
Number of entries = 18
Load factor = 0.18556701030927836

Number of collisions = 2
Longest Linked List = 2

HashSC #2 with the String key has:

Color: Green = 008000
Color: Gray = 808080
Color: White = FFFFFFFF
Color: Purple = 800080
Color: Magenta = FF00FF
Color: Black = 000000
Color: Yellow = FFFF00
Color: Lime = 00FF00
Color: Olive = 808000
Color: Dark Blue = 0000A0
Color: Silver = C0C0C0
Color: Light Blue = ADD8E6
Color: Brown = A52A2A
Color: Blue = 0000FF
Color: Red = FF0000
Color: Orange = FFA500
Color: Maroon = 800000
Color: Cyan = 00FFFF

In the HashSC class:

Table Size = 97
Number of entries = 18
Load factor = 0.18556701030927836
Number of collisions = 0
Longest Linked List = 1

Testing hash tables, please enter the same filename just used,

Enter the input filename: HW5 Test Input1.txt

Result of calling contains for Red in HashQP = true

Result of calling contains for Red in HashSC = true

Retrieved in HashQP, Color: Red, now trying to delete it

Successfully removed from HashQP: Red

Retrieved in HashSC, Color: Red, now trying to delete it

Successfully removed from HashSC: Red

HashQP with the int key now has:

0: Color: Magenta = FF00FF
1: Color: Black = 000000
4: Color: Brown = A52A2A
22: Color: Light Blue = ADD8E6
30: Color: Olive = 808000
34: Color: Yellow = FFFF00
43: Color: Silver = C0C0C0
48: Color: Maroon = 800000
60: Color: Cyan = 00FFFF
61: Color: Blue = 0000FF
62: Color: Gray = 808080

63: Color: Dark Blue = 0000A0
79: Color: Purple = 800080
80: Color: Orange = FFA500
83: Color: Green = 008000
95: Color: White = FFFFFFFF
96: Color: Lime = 00FF00

HashSC #1 with the String key now has:

8: Color: Brown = A52A2A
19: Color: Cyan = 00FFFF
21: Color: Black = 000000
31: Color: Maroon = 800000
33: Color: Olive = 808000
42: Color: Green = 008000
44: Color: Light Blue = ADD8E6 ---> Color: Gray = 808080
52: Color: Purple = 800080 ---> Color: Lime = 00FF00
53: Color: Magenta = FF00FF
54: Color: Dark Blue = 0000A0
56: Color: Blue = 0000FF
61: Color: Orange = FFA500
75: Color: Silver = C0C0C0
86: Color: White = FFFFFFFF
90: Color: Yellow = FFFF00

HashSC #2 with the String key now has:

1: Color: Green = 008000
8: Color: Gray = 808080
9: Color: White = FFFFFFFF
22: Color: Purple = 800080
23: Color: Magenta = FF00FF
34: Color: Black = 000000
35: Color: Yellow = FFFF00
40: Color: Lime = 00FF00
64: Color: Olive = 808000
66: Color: Dark Blue = 0000A0
67: Color: Silver = C0C0C0
74: Color: Light Blue = ADD8E6
75: Color: Brown = A52A2A
82: Color: Blue = 0000FF
83: Color: Red = FF0000
84: Color: Orange = FFA500
91: Color: Maroon = 800000
95: Color: Cyan = 00FFFF