Hash Report.

Adrian Jonsson Sjödin

Fall 2022

1 Task

-
-
-

2 Method & Theory

3 Result

push	Depth	add	Depth
12	2	10	6
17	3	19	6
17	4	16	6
12	3	10	3
14	4	17	6
20	3	10	3
11	4	14	6
15	3	11	6
15	4	20	6
13	4	19	6
12	5	15	6
13	4	11	6
20	5	15	6
13	4	17	6
17	2	10	6
17	5	16	6
14	4	11	6
17	5	19	5
17	5	11	6
17	5	11	4

Table 1: Benchmark for how deep the push and add method needed to go in the tree

4 Discussion

Code

All the code can be found here: GitHub

Code Overview 1: $\mathcal{O}(n)$ `add(Integer item)` method

Code Overview 2: $\mathcal{O}(n)$ `remove()` method

Code Overview 3: $\mathcal{O}(1)$ `remove()` method

Code Overview 4: $\mathcal{O}(n)$ `add(Integer item)` method

Code Overview 5: $\mathcal{O}(log(n))$ `add(int priority, T item)` method

Code Overview 6: $\mathcal{O}(log(n))$ `remove()` method

Code Overview 7: The `push(int increment)` method

Code Overview 8: Array Heap `add(int item)` method

Code Overview 9: Array Heap `remove()` method