YunHo Law(Louis)

CS 260

Professor Scholer

05/29/2017

Assign04 - write up

2A)

|  |  |
| --- | --- |
| size | Time |
| 100 | 0.0008s |
| 1000 | 0.00072s |
| 100000 | 0.00076s |
| 1000000 | 0.00082s |
| 10000000 | 0.0008s |

2B) They are all around 0.0008s. The Big O is O(1). We don’t see the increases in the times between levels because they bigO of this function is constant. The max size that the tree can get is 100000 since the range of the integers is 1 to 100000 and it ignores the same number. Therefore, the depth of the maximum int is not increasing rapidly.