

19th Sep 2024

Quiz 10

10

Roll number: BSSE 23058.

Q1.a) Sort the following array by using bucket sort. Explain and highlight the changes in each step.

9	13	5	2	6	8	16	1	3
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b) What is the time complexity of bucket sort.

(a)

9	-3	5	2	6	8	-6	1	3
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take a for loop and find the highest number in the array that is the range.

0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	0

9	-3	5	2	6	8	-6	1	3
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↑ → ↑

iterate.

1

0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	1

0	1	2	3	4	5	6	7	8	9
0	0	0	1	0	0	0	0	0	1

0	1	2	3	4	5	6	7	8	9
0	0	0	1	0	1	0	0	0	1

0	1	2	3	4	5	6	7	8	9
0	0	1	1	0	1	0	0	0	1

0	1	2	3	4	5	6	7	8	9
0	0	1	1	0	0	1	0	0	1

Data Structures and Algorithms

SE200T-Fall 2024