hw7.md 2024-12-12

Data Structure Homework 7

Student ID: 41247001S

Question 1

i round	1	2	3	4	5	6	7	8	9	10
-	56	23	78	12	45	89	34	67	10	49
1	23	56	78	12	45	89	34	67	10	49
2	23	56	78	12	45	89	34	67	10	49
3	12	23	56	78	45	89	34	67	10	49
4	12	23	45	56	78	89	34	67	10	49
5	12	23	45	56	78	89	34	67	10	49

Question 2

I th call	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
_	56	23	78	12	45	89	34	67	10	49
1	23	12	45	34	0	ŧ	36	2	80 	67
2	12	0	С 3	አ.	e F	₽	56	8	8	67
3	0	(S)	23	f	34	49	56	را 90	8	67
4	(0	(2	23	34	45	49	56	9	89	67
5	0	12	23	34	47	4	26	67	8	98

Question 3

i round	1	2	3	4	5	6	7	8	9	10
-	56	23	78	12	45	89	34	67	10	49
1	23	56	12	78	45	89	34	67	10	49
2	12	23	56	78	34	45	67	89	10	49
3	12	23	34	45	56	67	78	89	10	49
4	10	12	23	34	45	49	56	67	78	89

Question 4

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i round	1	2	3	4	5	6	7	8	9	10
-	56	23	78	12	45	89	34	67	10	49
Step 1	89	67	78	23	49	56	34	12	10	45
Step 2.1	78	67	56	23	49	45	34	12	10	89
Step 2.2	67	49	56	23	10	45	34	12	78	89
Step 2.3	56	49	45	23	10	12	34	67	78	89
Step 2.4	49	34	45	23	10	12	56	67	78	89
Step 2.5	45	34	12	23	10	49	56	67	78	89

Question 5

Perform LSD

Iteration 1	0	1	2	3	4	5	6	7	8	9	
bucket		11,41	12,32	2 23,5	3 34	65,45	56	87,7	98,78	89	
merge after iteration 1											
11,41,12,32,2	11,41,12,32,23,53,34,65,45,56,87,7,98,78,89										
Iteration 2	0	1	2	3	4	5	6	7	8	9	
bucket	7	11,12	23	32,34	41,45	53,56	65	78	87,89	98	
merge after iteration 2											

^{7, 11, 12, 23, 32, 34, 41, 45, 53, 56, 65, 78, 87, 89, 98}

Perform MSD

Iteration 1	0	1	2	3	4	5	6	7	8	9		
bucket	7	12,11	23	34,32	45,41	56,53	65	78	87,89	98		
merge after	merge after iteration 1											
7,12,11,23,34	7,12,11,23,34,32,45,41,56,53,65,78,87,89,98											
Iteration 2	0	1	2	3	4	5	6	7	8	9		
sub-bucket	7	11,12	23	32,34	41,45	53,56	65	78	87,89	98		
merge after	merge after iteration 2											

^{7, 11, 12, 23, 32, 34, 41, 45, 53, 56, 65, 78, 87, 89, 98}