

M6: Hands-On: Hash Tables

Due Apr 16 at 11:59pm

Points 2

Questions 2

Time Limit None

Allowed Attempts Unlimited

Instructions

Hands-On: Hash Tables

This activity focuses on the fundamental mechanics of adding new values to a hash table using different collision resolutions strategies.

Adding values

1. Open the lecture notes on Hash Tables.
2. Review the note set to refresh your memory on this data structure.
3. Go to the slides that illustrate adding to an open addressed hash table the following sequence of hashcodes: 35, 22, 18, 94, 56, 12, 6
4. Go through each add operation in the slides using linear probing for collision resolution, and make sure you understand how each works.
5. Go through each add operation in the slides using double hashing for collision resolution, and make sure you understand how each works.



[Take the Quiz Again](#)

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	less than 1 minute	2 out of 2

❗ Correct answers are hidden.

Score for this attempt: **2** out of 2

Submitted Apr 14 at 8:35pm

This attempt took less than 1 minute.

Question 1

1 / 1 pts

Assume you have an open-addressed hash table using linear probing for collision resolution and no rehashing. Which table below shows the result of inserting the following hash codes in the order in which they appear, using the hash function $h(\text{hashcode}) = \text{hashcode} \% 10$?

22, 9, 5, 18, 14, 28, 30, 19

- A.

22	9	5	18	14	28	30	19		
0	1	2	3	4	5	6	7	8	9
- B.

28	30	22	19	14	5			18	9
0	1	2	3	4	5	6	7	8	9
- C.

30		22	19	14	5		28	18	9
0	1	2	3	4	5	6	7	8	9
- D.

28	19	22		14	5	30		18	9
0	1	2	3	4	5	6	7	8	9

☐ A

☒ B

☐ C

☐ D

Question 2

1 / 1 pts

Assume you have an open-addressed hash table using double hashing for collision resolution and no rehashing. Which table below shows the result of inserting the following hash codes in the order in which they appear, using the hash function $h(\text{hashcode}) = \text{hashcode} \% 10$ and the secondary hash function $h_2(\text{hashcode}) = 1 + \text{hashcode} \% 9$.

22, 9, 5, 18, 14, 28, 30, 19

A.

22	9	5	18	14	28	30	19		
0	1	2	3	4	5	6	7	8	9

B.

30		22	19	14	5		28	18	9
0	1	2	3	4	5	6	7	8	9

C.

28	30	22	19	14	5			18	9
0	1	2	3	4	5	6	7	8	9

D.

28	19	22		14	5	30		18	9
0	1	2	3	4	5	6	7	8	9

☐ A

☐ B

☐ C

☒ D

Quiz Score: **2** out of 2