

CS152: Data Structure

Week 5 Knowledge Check

Write the full name of all collaborators inside this box

Discuss these questions and write your answers in the space provided below it.

1. Assume that the position of an item to be removed from a singly linked structure has been located. State the run-time complexity for completing the removal operation from that point.
2. Can a binary search be performed on items that are in sorted order within a singly linked structure? If not, why not?
3. Suggest a good reason that Python list uses an array rather than a linked structure to hold its items
4. What advantage does a circular linked structure with a dummy header node give the programmer?
5. Describe one benefit and one cost of a doubly linked structure, as compared to a singly linked structure.