1. **Analyze the time complexity of each operation.**

Time Complexity:

* **Add Operation:** O(n) because we are adding at the end.
* **Search Operation:** O(n) for linear search.
* **Traverse Operation:** O(n).
* **Delete Operation**: O(n) for searching, O(1) for deleting once found.

1. **Discuss the advantages of linked lists over arrays for dynamic data.**

Advantages of Linked Lists over Arrays:

* **Dynamic Size:** Can grow and shrink in size as needed.
* **Efficient Insertions/Deletions:** Especially when modifying elements at the beginning or middle of the list.
* **No Wasted Memory:** Memory is allocated as needed.