Task Management System

1. Singly Linked List:

* It is a data structure which contains data in the form of a node and this node points only to one other node
* Traversal is unidirectional
* Simple to implement and consumes less memory
* Insertion and deletion is easy

2. Doubly Linked List:

* It is a data structure which contains data in the form of a node and this node points to both its previous and successor nodes
* It can be traversed in both ways
* Difficult to implement because of previous and successor nodes
* Insertion and deletion are slightly difficult

3. Time Complexity:

* addTask(): O(1), because tail pointer is also stored and insertion is happened at the end
* deleteTask(): O(n), because we have to search for the element
* searchTask(): O(n), because we have to traverse entire array to search
* traverseTask(): O(n), because to display we have to traverse entire array

4. Advantages:

* using a linked list we can handle dynamic data
* insertion and deletion is easier
* we can utilize memory efficiently
* no size limitations like arrays