❖ Singly Linked List:

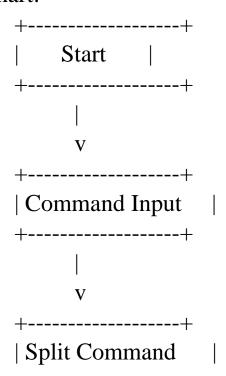
Explanation:

The problem involves implementing a singly linked list that supports basic operations: inserting, deleting, and searching for integer values while accepting command inputs as strings (e.g., "Insert 5"). Users can input commands in a structured format, and the program performs the corresponding operations on the linked list. The goal is to manage the list effectively while providing clear feedback on the success or failure of each operation.

• Time Complexity and Space Complexity:

| Insert | O(n) | O(1) |
|--------|------|------|
| Delete | O(n) | O(1) |
| Search | O(n) | O(1) |
| Print | O(n) | O(1) |

• Flowchart:



```
| Is action Insert, |
    | Delete, Search, |
    or Print?
  Yes Yes Yes
+----+ +-----+
| Insert Value | | Delete Value | | Search Value |
+----+ +----+
+----+ +-----+
| Create New Node| | Search for Node| | Search for
Node |
| With Value | | With Value | | With Value
+----+ +----+
                V
+----+ +----+
| Is List Empty? | | Is Node Found? | | Is Node
Found?
+----+ +----+
```

