

### ❖ Intersection of List:

- Explanation:

The program identifies the first common element between two linked lists, which indicates their intersection point. It uses a HashSet to store values from the first list and checks for these values while traversing the second list. If a common value is found, it outputs that value; otherwise, it indicates that there is no intersection.

- Time Complexity and Space Complexity:

- $O(m+n)$                        $O(m)$

- Flowchart:

[Start]

|

[Input Linked List A]

|

[Input Linked List B]

|

[Create empty HashSet]

|

[Set Current A to Head of List A]

|

[Current A is not null?] -- No --> [Set Current B to Head of List B]

| Yes

|

[Add Current A's value to HashSet]

|

[Move Current A to Current A's next]

|

[Back to Current A is not null?]

[Set Current B to Head of List B]

|

[Current B is not null?] -- No --> [Output: "No intersection found."]

| Yes

|

[Is HashSet contains Current B's value?] -- No -->

[Move Current B to Current B's next]

| Yes

|

[Output: "The first intersection value is: Current B's value"]

|

[End]