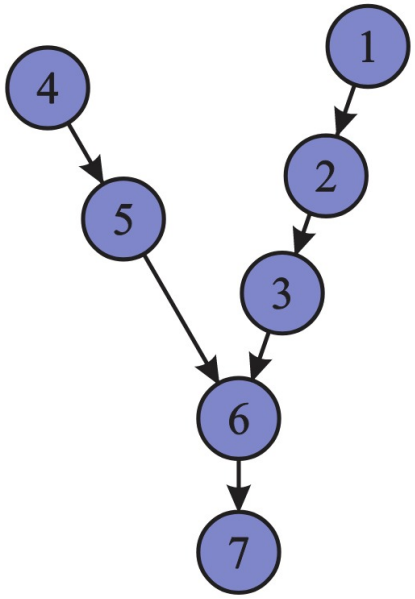
Linked List Questions

Note - These are classical questions. Please positively solve them.

Question 1 :

Intersection of Two Linked Lists

In a system there are two singly linked list. By some programming error, the end node of one of the linked lists got linked to the second list, forming an inverted Y-shaped list. Write a program to get the point where two linked lists merge.



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We have to find the intersection part in this system.

Question 2 :

Delete N Nodes After M Nodes of a Linked List

We have a linked list and two integers M and N. Traverse the linked list such that you retain M nodes then delete next N nodes, continue the same till end of the linked list. Difficulty Level: Rookie.

Sample Input 1 : M=2 N=2 LL: 1->2->3->4->5->6->7->8
Sample Output 1 : 1->2->5->6

Sample Input 2 : M=3 N=2 LL: 1->2->3->4->5->6->7->8->9->10
Sample Output 2 : 1->2->3->6->7->8

Question 3 :

Swapping Nodes in a Linked List

We have a linked list and two keys in it, swap nodes for two given keys. Nodes should be swapped by changing links. Swapping data of nodes may be expensive in many situations when data contains many fields. It may be assumed that all keys in the linked list are distinct.

Sample Input 1 : 1->2->3->4, x = 2, y = 4
Sample Output 1 : 1->4->3->2

Question 4 :

Odd Even Linked List

We have a Linked List of integers, write a function to modify the linked list such that all even numbers appear before all the odd numbers in the modified linked list. Also, keep the order of even and odd numbers same.

Sample Input 1 : 8->12->10->5->4->1->6->NULL
Sample Output 1 : 8->12->10->4->6->5->1->NULL

Sample Input 2 : 1->3->5->7->NULL
Sample Output 2 : `1->3->5->7->NULL`

Question 5 :

Merge k Sorted Lists

We have K sorted linked lists of size N each, merge them and print the sorted output.

Sample Input 1 : `k = 2, n = 2`
`l1 = 1->3->NULL`
`l2 = 6->8->NULL`
`l3 = 9->10->NULL`

Sample Output 1 : 1>3->6->8->9->10->NULL

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