Print Reverse of Linked List

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September 26, 2017

Question

Given the head node of a linked list, print the elements of the list in reverse order.

Explanation and Algorithm

The best way to solve this problem is using recursion. If the current node is null, then you should not print it, so this is our base case. Each call of the method will have head.next passed to it.

Hints

1. Since we are given the head of the list, how do we go to the end of the list to start printing?

2. Is there a way to iterate backwards through a linked list?

3. Is recursion useful for this problem?

4. Try using recursion. What is a possible base case for this problem?

5. What if your method encounters a null node?

Code

```
void ReversePrint(Node head){

   if(head == null)
      return;

   ReversePrint(head.next);
```

```
    System.out.println(head.data + " ");

}
```

Big O analysis

Since this method 'reaches" each node one time, the run-time is O(n).

Sources

Question, answer and other material taken from HackerRank.com.