

## Question #18

### Sum of Linked Lists

**Difficulty :** Easy     **Category :** Linked Lists

You're given two Linked Lists of potentially **unequal** length. Each Linked List represents a **non-negative** integer, where each node in the Linked List is a digit of that integer, and the first node in each Linked List always represents **the least significant digit** of the integer. Write a function that returns the **head of a new Linked List that represents the sum** of the integers represented by the two input Linked Lists. Each LinkedList node has an integer value as well as a next node pointing to the next node in the list or to None / null if it's the tail of the list. The value of each LinkedList node is always in the range of 0 - 9 .  
Note: your function must create and return a new Linked List, and you're not allowed to modify either of the input Linked Lists.

#### Sample Input

```
linkedListOne = 2 -> 4 -> 7 -> 1 // represents 1742 as a number  
linkedListTwo = 9 -> 4 -> 5
```

#### Sample Output

```
1 -> 9 -> 2 -> 2  
// linkedListOne represents 1742  
// linkedListTwo represents 549  
// 1742 + 549 = 2291
```

**Good luck!**

Fatih