/\*\*

\* Definition for singly-linked list.

\* public class ListNode {

\* int val;

\* ListNode next;

\* ListNode(int x) { val = x; }

\* }

\*/

class Solution {

public ListNode addTwoNumbers(ListNode l1, ListNode l2) {

int k=0;

ListNode x1=null;

ListNode res = null; // res is head node of the resultant list

ListNode prev = null;

ListNode temp = null;

int carry = 0, sum;

while(l1!=null || l2!=null){

int a=l1 != null ? l1.val : 0;

int b=l2 != null ? l2.val : 0;

sum = carry +a+b ;

// update carry for next calulation

carry = (sum >= 10) ? 1 : 0;

sum = sum % 10;

temp = new ListNode(sum);

if(res==null){

res=temp;

}

else

{

prev.next = temp;

}

prev = temp;

l1=l1 != null ? l1.next : l1;

l2=l2 != null ? l2.next : l2;

}

if (carry>0){

temp = new ListNode(carry);

prev.next = temp;

}

return res;

}

}