

TC1018 – Estructuras de Datos

Momento de Práctica 4 – Merge two sorted linked lists

Ing. Luis Humberto González G / Ing. Delia Castro Rojas

Forma de Trabajo: Individual.

Forma de Entrega: Subir a Blackboard el código de tu solución y un archivo con la pantalla de Aceptado en la plataforma de hackerrank

El presente problema pertenece a HackerRank Online Judge (<https://hackerrank.com>)

Merge two sorted linked lists

URL: <https://www.hackerrank.com/challenges/crush/problem>

You're given the pointer to the head nodes of two sorted linked lists. The data in both lists will be sorted in ascending order. Change the next pointers to obtain a single, merged linked list which also has data in ascending order. Either head pointer given may be null meaning that the corresponding list is empty.

Input Format

You have to complete the `Node* MergeLists(Node* headA, Node* headB)` method which takes two arguments - the heads of the two sorted linked lists to merge. You should NOT read any input from stdin/console.

Output Format

Change the next pointer of individual nodes so that nodes from both lists are merged into a single list. Then return the head of this merged list. Do NOT print anything to stdout/console.

Sample Input

```
1 -> 3 -> 5 -> 6 -> NULL
2 -> 4 -> 7 -> NULL
```

```
15 -> NULL
12 -> NULL
```

```
NULL
1 -> 2 -> NULL
```

Sample Output

```
1 -> 2 -> 3 -> 4 -> 5 -> 6 -> 7 -> NULL
```

```
12 -> 15 -> NULL
```

```
1 -> 2 -> NULL
```

Explanation

1. We merge elements in both list in sorted order and output.