Submission type
C#8

Who's The Customer?

You are waiting in line for the next World Of Warcraft expansion at the locale game store. And you want to know the Gamertag, i.e., the online name of one of the persons waiting in line with you.

You are given a directed graph of `Customer`s, where one `Customer` has exactly one reference to the next `Customer` or `null` if it is the last `Customer`. Given such a graph, you need to find the Gamertag of the N'th customer from the right, meaning the `int numberFromRight` from the last customer in line.

Example

An example of a graph where `FindFromRight(ExoticWhale, 3)` should return `TrainedPony`.

```
ExoticWhale -> TrainedPony -> FlashyRogu
```

Testing

To test your code, write the input in the following format.

```
<Value of numberFromRight>
<List of customers, separated by newlines>
```

For example

```
3
ExoticWhale
TrainedPony
FlashyRogue
Herobot
```

The expected output should be

```
TrainedPony
```

Solution

Finder ⋮ Customer ⋮ +

```
1   using System;
2   using System.Collections.Generic;
3   using System.IO;
4   using System.Linq;
5
6
7   public class Finder {
8       /// <summary>
9       /// Method that n'th customer from the
    last on in line.
10      /// </summary>
11      /// <param name="customer">The customer
    object of the first in line</param>
12      /// <param name="numberFromRight">The
    number of the customer to find</param>
13      /// <returns>The GamerTag of the
    customer</returns>
14      public string FindFromRight(Customer
    customer, int numberFromRight)
15      {
16          Customer searchedForCustomer = null;
17          // Runs through the linked list to
```

Run Samples Save Code

<> Expand to run code against custom input

Implement your solution in the `FindFromRight` method. If you see `// YOUR SOLUTION GOES HERE`, you've found the right place :-)

What you'll be evaluated on

Please note that extra points are given for a solution that allocates as little extra memory and iterates the graph as few times as possible. This requirement should not be interpreted in terms of complexity theory but actual iterations and memory usage. For instance, is it possible to iterate the graph only once using a constant number of extra pointers? Remember to leave comments in your code to let us know about your thought process.

Samples result

Correct answer! 😃 1 of 1 test cases passed.

✓ Sample