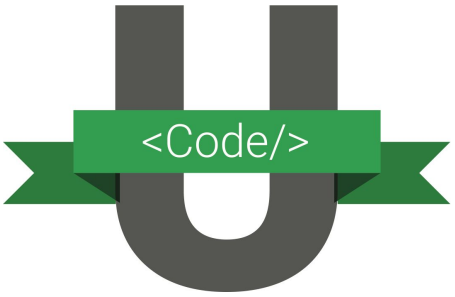


# Assignment 0

*If anything in the assignment is unclear, you have two options. You can ask for clarifications in the #assignments channel on Slack. It is also great if you can also make assumptions: real-world problems are always unclear, and as engineers we want to move on and make progress, even if we need to re-adjust later. If you do make assumptions, please try to identify them and document them as comments in your code.*

## Linked List Elements

Implement a data structure and an algorithm to find the k-th to last element of a singly linked list.

For example:

- If k = 0, return the last element of the list
- If k = 1, return the element before the last element of the list
- If k = n - 1, where n is the length of the list, return the first element of the list

You will need to define your own linked list data structure.

### Optional Challenges

*If you are done with the main assignment, you can pick up any of the optional challenges below and try to solve those as well. If you decide to take one or more optional challenges, make sure these are implemented as separate files from the original challenge. You might want to refactor some of your code so that you can reuse it across the main assignment and the optional challenges. You can submit a separate pull request for the optional challenges or include them with the main assignment.*

1. Solve the problem without computing the length of the list.