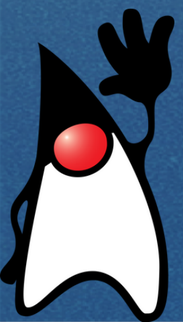
Week 8!

COMP1511 24T1



Please fill in the feedback form for last week if you haven't gotten a chance yet!

Overview

Assignment 2

Malloc

Diagramming Linked Lists

Multi-file and Linked Lists

Assignment 2 Released

Assignment 2 is out

Any questions?

Assignment 2 livestream is the best place to go to get an easy overview on how to get started

When to choose malloc()

Using **malloc**:

- dynamically choosing the size of our array (remember C doesn't like: int nums[size]; where size is scanned in at runtime)
- eventually we can decide to change the size of our array if that's required
- we can safely return a pointer towards the variable from a function

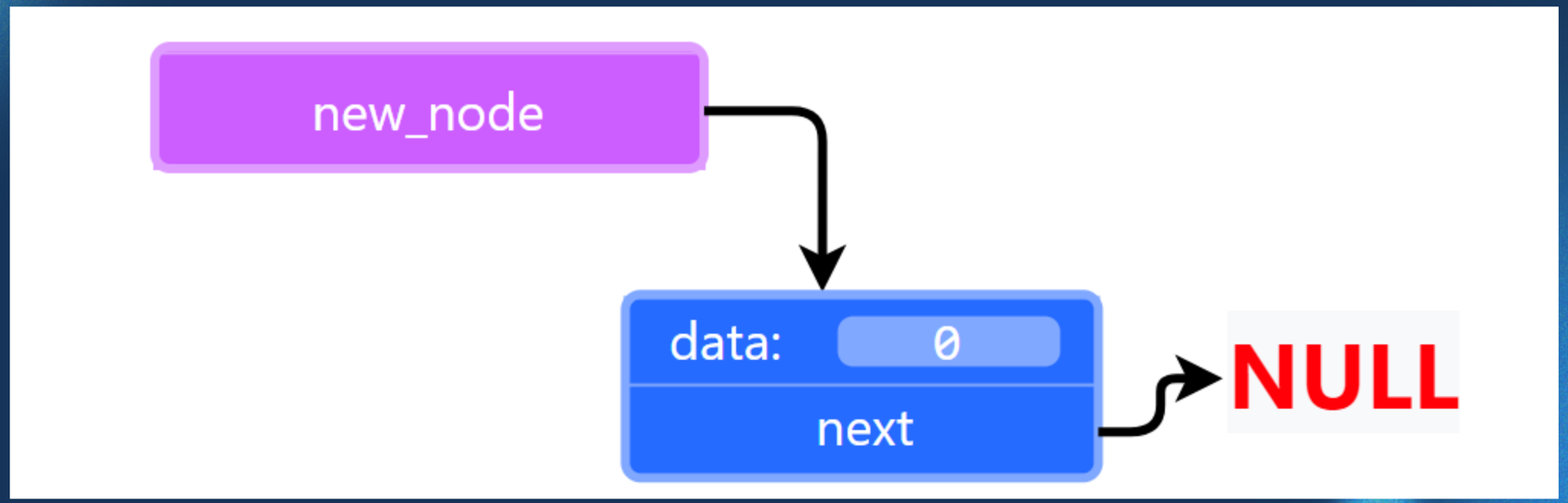
Not using **malloc**:

- simpler to use
- we don't need to worry about free()

Diagramming Linked Lists

- Nodes linked together via next fields.
- Head pointer stores the address of the first node
- Need a current pointer too

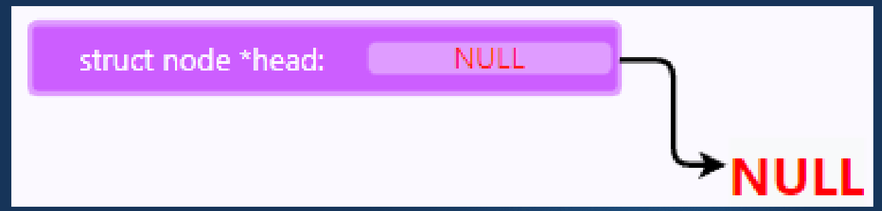
Struct Pointers

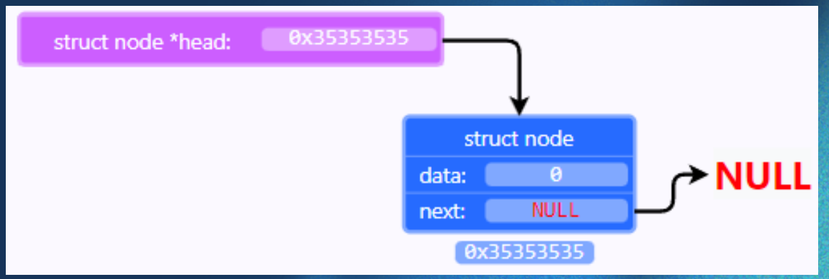


Task (Inserting into LL)

Every group gets a different edge case:

1. n = 0, and the list is any length (Diagram 1, 2 or 3).
2. n is greater than the length of the linked list.
3. n is any value, and the list is empty (Diagram 1).
4. n is less than the length of the list, and the list is not empty (Diagram 2, 3)





For your task write pseudocode for inserting before the nth node (handle your edge case and others if you have time)

Bonus: what order do we want to check our edge cases and why?