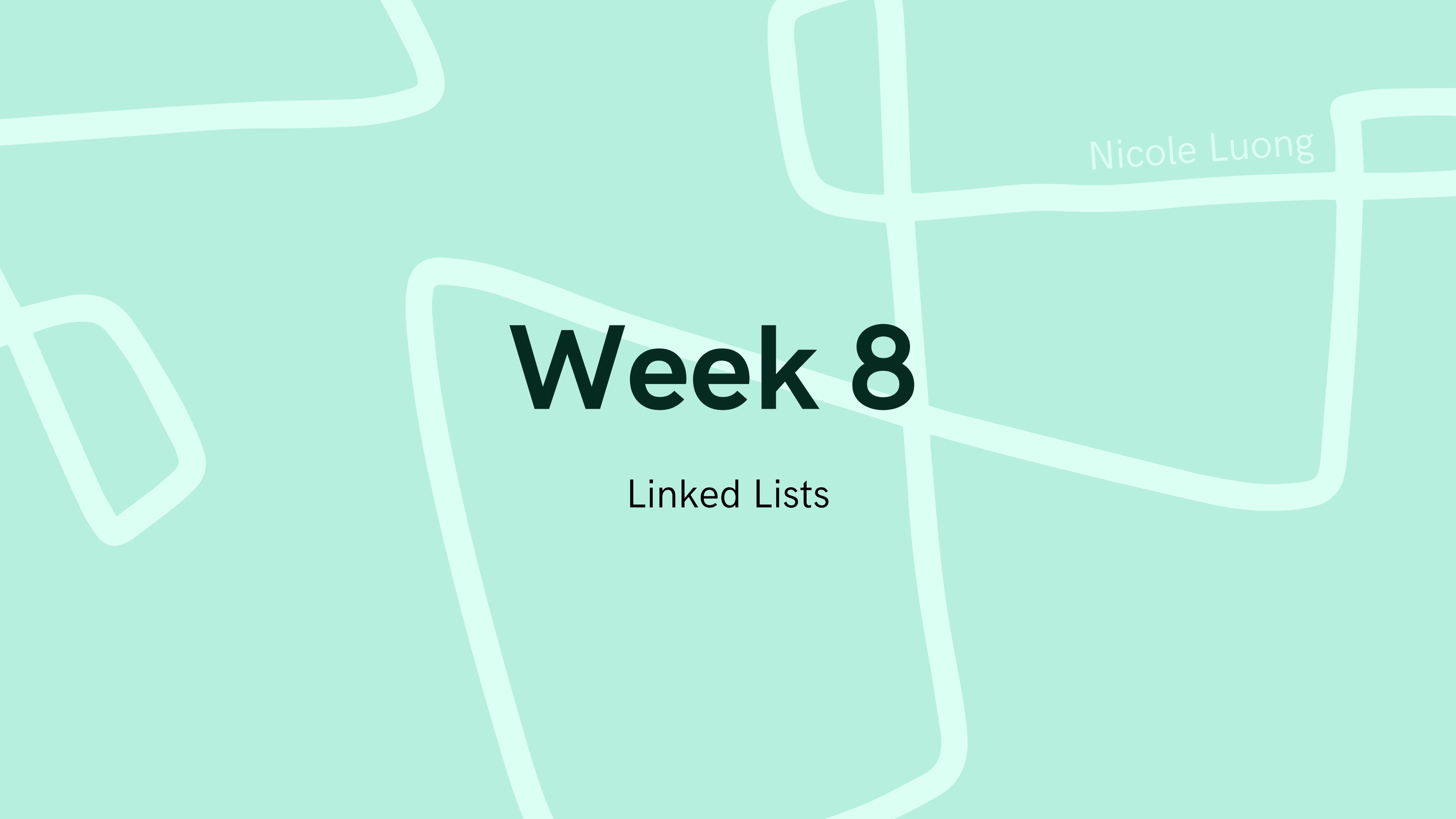


Week 8

Linked Lists

Before we begin

Assignment 2

Feedback Week

Volunteers Please :)

Malloc

What is it?

What values do we give it?

What does it return?

Malloc

Use malloc() to finish initialising these variables

```
char *my_letter = ____________________________;

int *my_num = ____________________________;

int *my_array = ____________________________;
```

Nicole Luong

Malloc

In your groups, write out a function that:

- Takes in an int value
- Returns a pointer to a node containing the given value

This is the node structure we will be using in this tutorial

```
struct node {
    int data;
    struct node *next;
};
```

Linked Lists

Linked Lists

In your groups, finish the iterate_list() function.

```
struct node {
    int data;
    struct node *next;
};

void iterate_list(struct node *head) {

    // TODO
    // Add code to iterate through the
    // given linked list

}
```

Linked Lists

In your groups, finish the iterate_list() function.

```
struct node {
    int data;
    struct node *next;
};

void iterate_list(struct node *head) {

    // TODO
    // Add code to iterate through the
    // given linked list

}
```

How can you modify this function so that

- it stops at the last node instead of at NULL?
- Are there extra cases to account for?

Linked List

In your groups, finish the insert_3rd() function

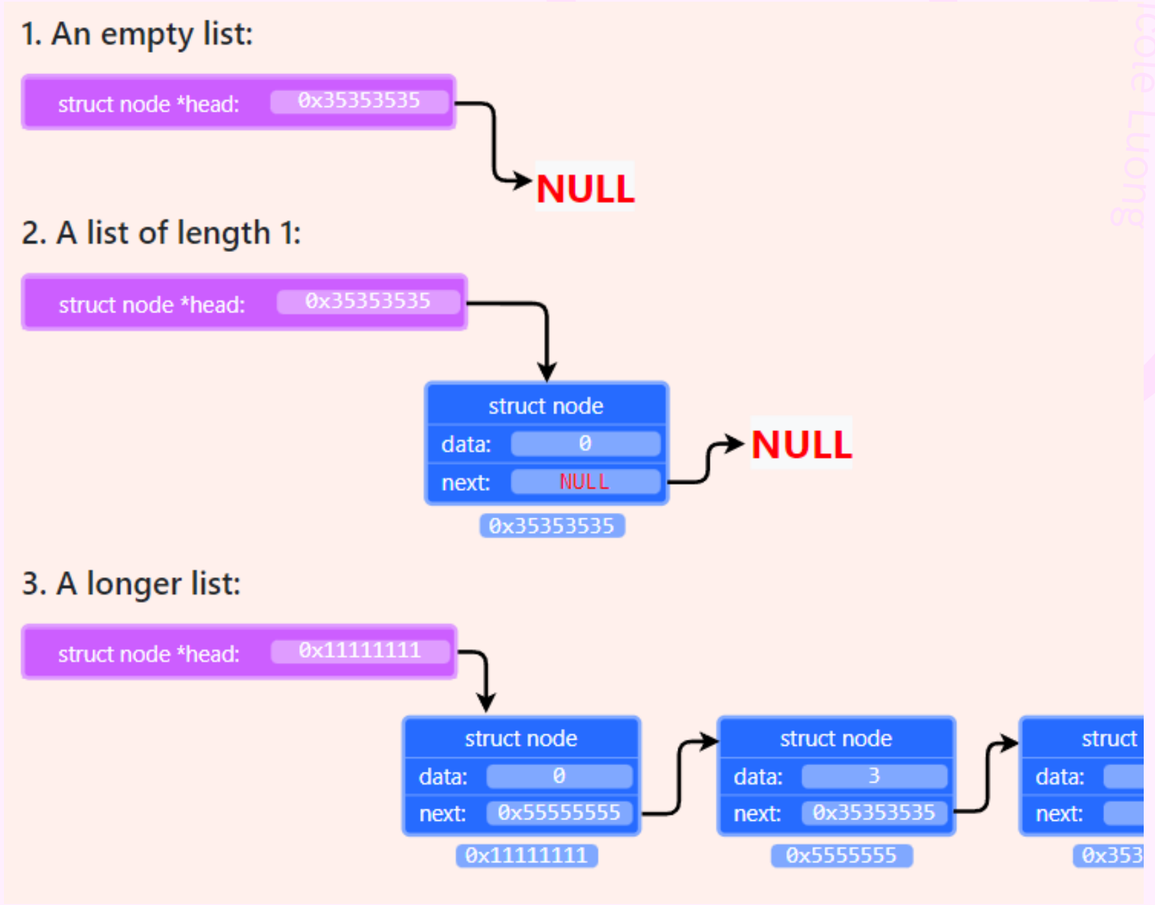
```
struct node {
    int data;
    struct node *next;
};

// Returns the head of the list
struct node *insert_3rd(struct node *head) {
    struct node *new_node = create_node(5);

    // TODO
    // Add code to insert new_node as the
    // third element in the list

    // If there are less than 2 items in
    // the list, insert at the end
}
```

Cases to consider:



Hint: Make a variable to track of what number item you are currently at.

Lab Time!