Nicole Luong

Week 4

Arrays, Functions

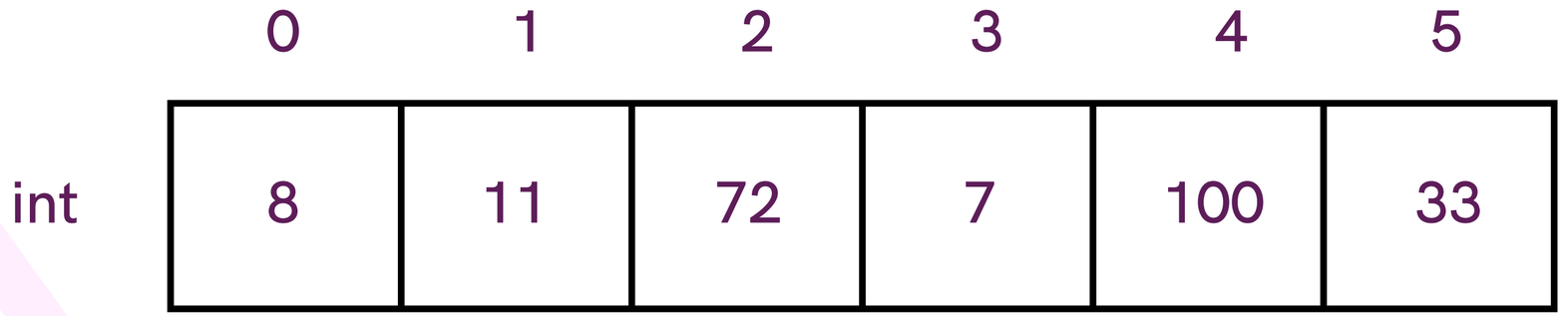
Before we start

Census Date: This Sunday!

Get started on Assignment 1

Arrays

- Create an integer array



- Print out all the variables in the array

Array Round Robin

Odd Only

1. Create an integer array with at least 5 elements.
2. Create a while loop which loops through every element of the array.
3. Write an if statement which adds 1 to each even value. Do this within the while loop.
4. Write another while loop which goes through the array with a different iterator (i.e. if you used i last time, use j)
5. Print out the values in the array.

Copy Array

1. Create an array of doubles with 3 elements, each with a non-zero value.
2. Create another array of doubles with 10 elements where every element initialised to 0.0.
3. Create a while loop that loops through every element of the first array.
4. Copy the elements of the first array into the second array (leave 0's at the end)
5. Create a while loop that prints out all the elements of the second array.

Array Round Robin Extension

Largest Character

1. Create a character array with exactly 8 elements.
2. Create a character variable called largest_character, equal to the first character of the array.
3. Create a while loop to loop through the character array.
4. Create an if statement to check if the current character has a higher ascii value than "largest_character"
5. Print out the largest character you've found.
6. Ensure your code would pass "1511 style"
7. Go join other teams, and sit with their groups to help them finish.

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Scanning into an Array

Scan 6 temperatures into an array and print the highest temperature

```
17
36
44
25
38
44
```

Plan together, write pseudocode in in your groups on the board

Scanning Until CTRL+D

What if you didn't know how many inputs would be entered?

Modify the highest temperature code to scan in up to 100 temperatures.

```
17 36 44 25 38 44 ... 1 ctrl+d
```

Food for thought:

- How big should you size this array?
- What does scanf return?

Function Practice

Kahoot!

```
struct colour {
    int red;
    int green;
    int blue;
};


struct colour make_colour(int red, int green, int blue) {
    struct colour new_colour;

    new_colour.red = red;
    new_colour.green = green;
    new_colour.blue = blue;

    return new_colour;
}
```

Lab Time!