
Week 5!

CLASS SEMESTER

Assignment 01

Questions?

Recording

Next Week

Research Study

UNSW is performing research on Using Eye Tracking to investigate the use of Large Language Models (LLMs) to enhance compiler error messages with the Debugging C Compiler (DCC)

If you are interested in participating, more information is available in a couple of links in the tut page for this week on the course website

Overview

2D Arrays

Arrays and Functions

Strings

Tic Tac Toe

- 1: The game is played by 2 players on an n by n board
- 2: Players take turns placing their symbol (X or O) on a square
- 3: To win, a player must have claimed 3 tiles in a vertical, horizontal or diagonal row

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X		O
	X	
X	O	O

(here $n = 3$, for our task we will have $n = \text{SIZE} = 5$ #define-ed for us)

The Task

We will be implementing the function that checks if a player has won or not

The function should take in a character representing the player it is checking and the board it is checking

The function should return a truthy integer if the player won and a falsy one if they didn't

Arrays and Functions

Plan a procedure `void square(int x);` in groups for 60sec

Arrays and Functions

Plan a procedure `void square(int x);` in groups for 60sec

Variables passed into procedures/functions create a copy

Changes to the copy are deleted after the return

CODE example

Square Array

Program that:

1. Takes in array (called array) of size length
2. Squares all elements in the array

Whiteboard in groups

Strings

```
#include <stdio.h>

// Manually prints out a string, one character at a time.
// Should behave like printf("%s\n");
void print_string(char *string) {
    int i = 0;
    while (string[i] != '\0') {
        printf("%c", string[i]);
        i++;
    }
    printf("\n");
}

int main (void) {
    char my_string[] = "Many chars";

    print_string(my_string);
    return 0;
}
```

Strings

Whiteboard a solution for your assigned function using the provided char functions on the tutorial page

Be prepared to explain your solution to either just me or the class if time permits