COMP1917: 12 Structs Part 2

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Purpose

- Anything we could put in a spreadsheet.
- Previously we could have put each column in an array.
- The problem is if we swap two items, or remove an item from one array, we have to update all the other arrays so that the elements stay lined up.
- Alternative: Each row goes into a single struct. And we have an array of structs.
- Examples:
Accessing Members of a Struct

- When the variable is a struct, use the . notation. (Eg `date.day`)
- When the variable is a pointer to a struct, use the -> notation. (Eg `date->day`)
- The -> notation is short-hand for dereferencing the pointer, and then using the dot notation. The following two lines are equivalent:
  - `date->day`
  - `(*date).day`

- This is often used when the struct has been malloced, and so we are working with the pointer to the struct.
- Ex 1: Create a variation of Date.c and Date.h which uses malloc to declare the structs on the heap, and passes around a pointer to the struct.