



COMP1511

Tutorial 3

while loops | structs | enums



What are the 4 main components of a while loop?

- Initialisation - initialising the variable that controls the loop
- Condition - stating the condition that must be true for the while loop to execute its code
- Incrementation - updating the variable that controls the loop
- Body - what happens each time the while loop runs?



2D While Loops

- Nesting a while loop inside another while loop gives a 2D while loop
- Each time the outer while loop repeats, the inner while loop runs its entire cycle
- Useful of printing out rows and columns of characters, as well as looping through a 2D grid of objects



Enums and Structs

Enum: Custom data type that specifies a set of possible values for a variable to take (similar to having multiple `#defines`)

Struct: Custom data type that groups together different (usually related) variables



Variable names

Legal C variable names:

- Can only contain letters, numbers and _
- Must not start with a number

Following the style guide, variable names must:

- Start with a lowercase letter
- Use snake_case (#defines should use SHOUTING_SNAKE_CASE)

Variable names should also be descriptive and relevant - for the humans who have to read them!