

# QND Computer Science Day 10

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# Agenda

- Recap
- Loops
- `var` variables
- Booleans (you've been using them already)
- Making a game!

# Recap

- Calculator

# var

```
var count = 0
```

- Read as "set variable count to 0"

```
count = count + 1
```

- Read as "set count to count + 1"
- `let` cannot be changed
- `var` can

# Loops

- `while` loops
- `for` loops



# Repeating code

```
var count = 1
while count < 5 {
    print("Hello, World! Count = \(count)")
    count = count + 1
}
```

# Here be dragons!

```
var count = 1
while count > 0 {
    print("Hello, World! Count = \(count)")
    count = count + 1
}
```

# Infinite Loops

- "Why isn't my program running?"
- This program will never end
- To exit early, use STOP button
- Beware of overflowing resources!

when you forget to write an exit condition for your while loop





# Loops!

```
var running = true
while running {
    print("Enter a number")
    let firstNumber = Int(readLine()!)

    print("Enter another number")
    let secondNumber = Int(readLine()!)

    print("Enter a command")
    if command == "q" || command == "quit" {
        running = false
    } else if command == "add" {
        ...
    }
}
```

# Today's Task

- Guess My Number Game