

COP 3363

SPRING 2020

RECITATION 4

FOR LOOPS

- ▶ `for(<initial cond>; <halt cond>; <increment cond>){<statements>}`
- ▶ Repetition structure suited for a set number of iterations
 - ▶ FOR loops aren't **required** to have a set number of iterations, but other loop structures are easier to implement in those scenarios
- ▶ The initial condition must meet (eval to TRUE | nonzero) the halt condition in order for the loop to begin execution
- ▶ The loop exits when the halt condition evaluates to FALSE | 0

WHILE LOOPS

- ▶ `while(<halt condition>){<statements>}`
- ▶ Repetition structure best suited for loops which do not use a set number of iterations
 - ▶ Similarly, WHILE loops can be implemented to run for a set number of iterations, but FOR loops are easier to implement here
- ▶ The halt condition must evaluate to TRUE/nonzero in order for the loop to begin execution
- ▶ The loop exits when the halt condition evaluates to FALSE | 0

DO WHILE LOOPS

- ▶ `do{<statements>}while(<halt cond>);`
- ▶ Similar uses as a while loop
- ▶ Always runs at least once
- ▶ The loop exits when the halt condition evaluates to `FALSE` | 0

BREAK & CONTINUE

- ▶ BREAK will cause the loop to stop execution and jump to the first line of code below the loop block
- ▶ CONTINUE will cause the program to cease executing the statements in the current iteration of a loop, and jump to the halt condition