Today's plan

- Class interactions
    - Ex 1-2 & Ex 1-3
    - Keys points
    - Recap discussion

- Class exercises
    - Ex 2-1

Ex 1-2 & Ex 1-3

Questions?

- bear in mind:
  `gcc -std=c99 -Wall -Wextra -pedantic <source codes>`
- you should know how to work with git repository now, if not, review Ex 1-3

Key points

- logical operators: '&&' (and), '||' (or), '!' (negate)
- short-circuit evaluation: if we have `int` a = 1, b = 1;
    - `if (a++ == 1 || b++ == 1) printf("%d, %d", a, b);`

    - `2, 1`
    - `if (!(++a != 2 && b++ == 1)) printf("%d, %d", a, b);`

    - `2, 1`

- Conditionals: `if else`, `switch`
- Compound assignments, increment, and decrement:

$$\texttt{+=, -=, *=, /=, \%=, ++, --}$$

- Loop: `while(){}`, `do{} while();`, `for(;;){}`

- `break` and `continue`

What does the keyword break do in loops?

It immediately exits the loop.	immediately exits the loop	immediately exits loop
breaks out of the loop	Terminates loop	it exits the loop
exits loop	It exits the loop	Exits loops

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What does the keyword break do in loops?

Exits out of the entire loop, switch, or for statement.

stop and exit the loop

takes you out of the loop

Exits the loop

Break stops the current loop

Exits the current loop

it breaks out of loop (i think can also break to a certain point if its named)

exits loop immediately

exit

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What does the keyword break do in loops?

prematurely ends the loop it is most directly enclosed in

exit loop if something happens

quick guess only inside one

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What does the keyword continue do in loops?

keep going

If immediately proceeds to the next iteration of the loop (it skips the rest of the current iteration)

Moves to the next iteration of the loop

goes to the next iteration of the loop

skip this loop into the next round

Skips the rest of the current loop, jumping to its next iteration

ends current iteration

immediately proceeds to the next iteration of the loop

goes into the next iteration of the loop

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What does the keyword continue do in loops?

continues the loop

will move to the next iteration

go to next iteration

Skips to next iteration

Skips the current iteration of the loop

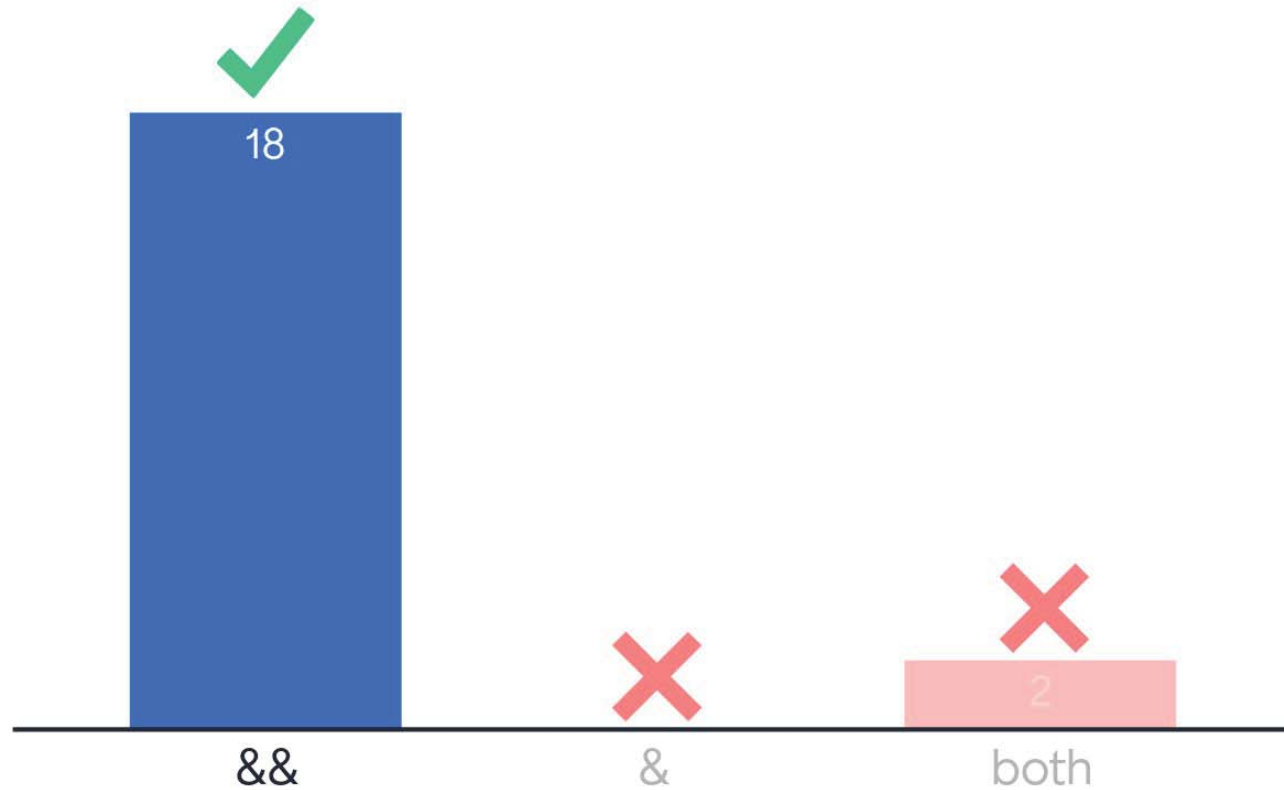Moves to the next iteration

moves to next iteration of the loop

goes to the next iteration of loop

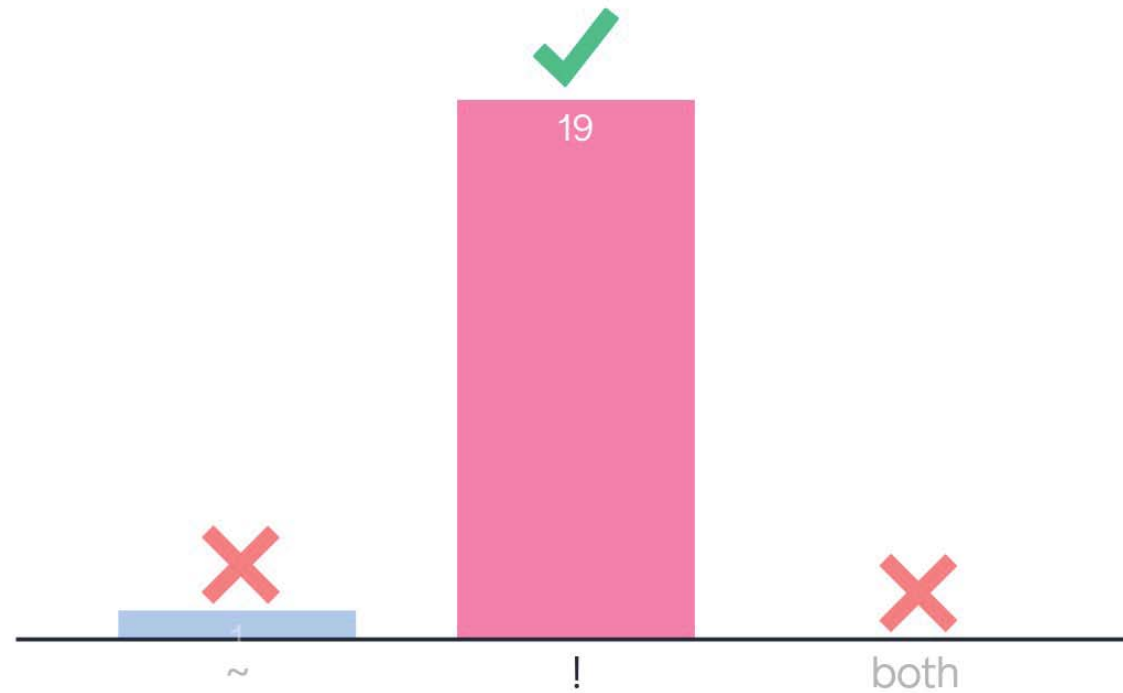ends the current iteration and continues to the next one

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What does the keyword continue do in loops?
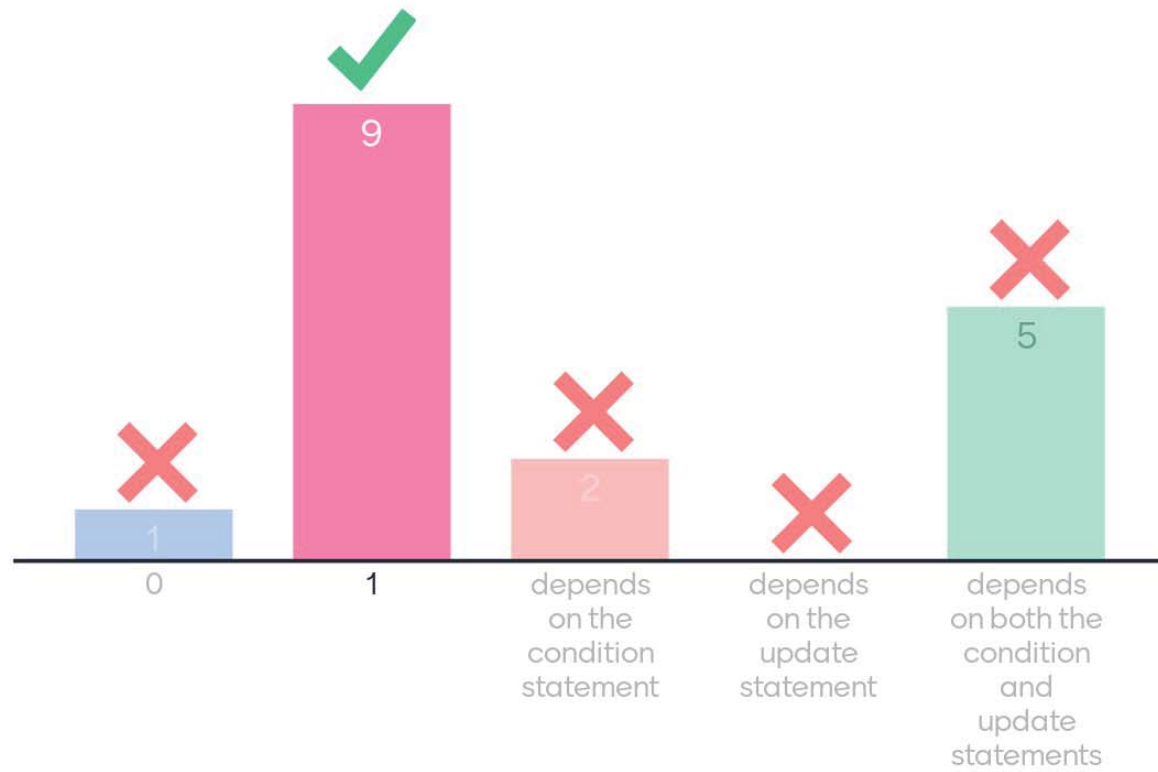
It makes the next thing in the loop happen

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Which one is the logical "and" operator in C?

✔️

18

❌

❌

2

&&   &   both

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Which one is the logical "negation" operator in C?

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~   !   both

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How many times is the "initialize statement" in a for loop executed?

| 0 | 1 | depends on the condition statement | depends on the update statement | depends on both the condition and update statements |

Recap questions

What output is printed by the following C program if the user enters the input 42?

```c
1  #include <stdio.h>
2  int main(void) {
3      int x;
4      printf("Enter an integer: ");
5      scanf("%d", &x);
6      switch (x) {
7      case 1: printf("Ok\n");
8          break;
9      case 17: printf("Not bad\n");
10         break;
11     case 42: printf("Great!\n");
12     default: printf("Huh?\n");
13         }
14     return 0;
15 }
```

What output is printed by the C program if the user enters the input 42?

Great! ✕ 10x	Great! (nextline)Huh? ✕	"Great!\n" ✕
Huh? ✕	Great! Huh? ✕	Ok ✕

The correct answer is: Greate!\nHuh?\n

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Recap questions

What output is printed by the following C program?

```c
#include <stdio.h>
int main(void) {
    for (int i = 1; i <= 10; i + 2) {
        printf("%d ", i);
    }
    return 0;
}
```

What output is printed by the C program?

| 13579 ✕ 10x | 13579 ✕ 3x | 1357911 ✕ 2x |

| it is an infinite loop because the update is i+2 not i += 2. ✕ | 3579 ✕ |

The correct answer is: It has an infinite loop!

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Class exercises

Ex 2-1