COP 3330   1/21/26

1) Leave right @ 1:20 pm - NO Q.
   (will be in office) ✓

2) P2 is posted. ✓

3) Today's Lecture - Loops

   Background:

   1) only COP2500 no other (one end)

   2) HS, COP 3223, COP 3502   (other end)

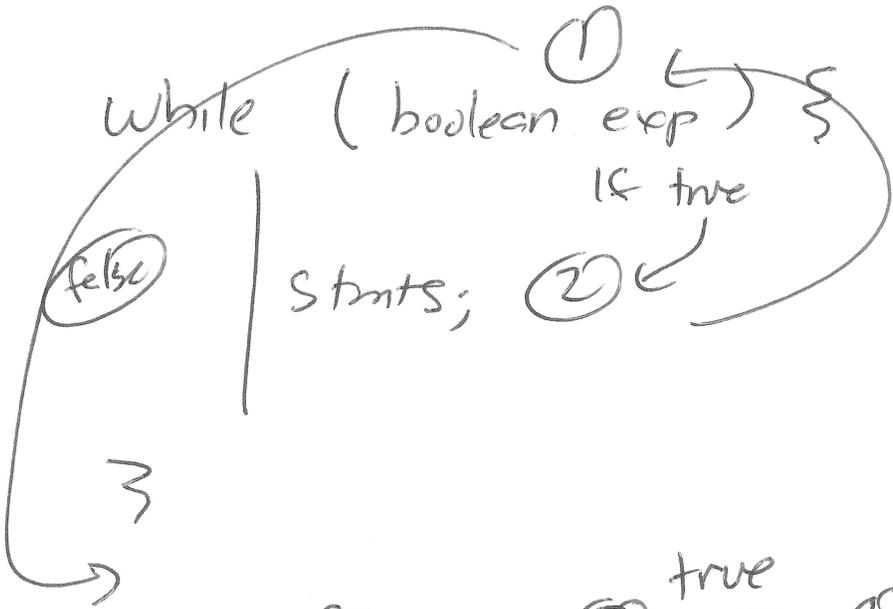   everyone has seen a loop BUT
   varying levels of practice.

   for
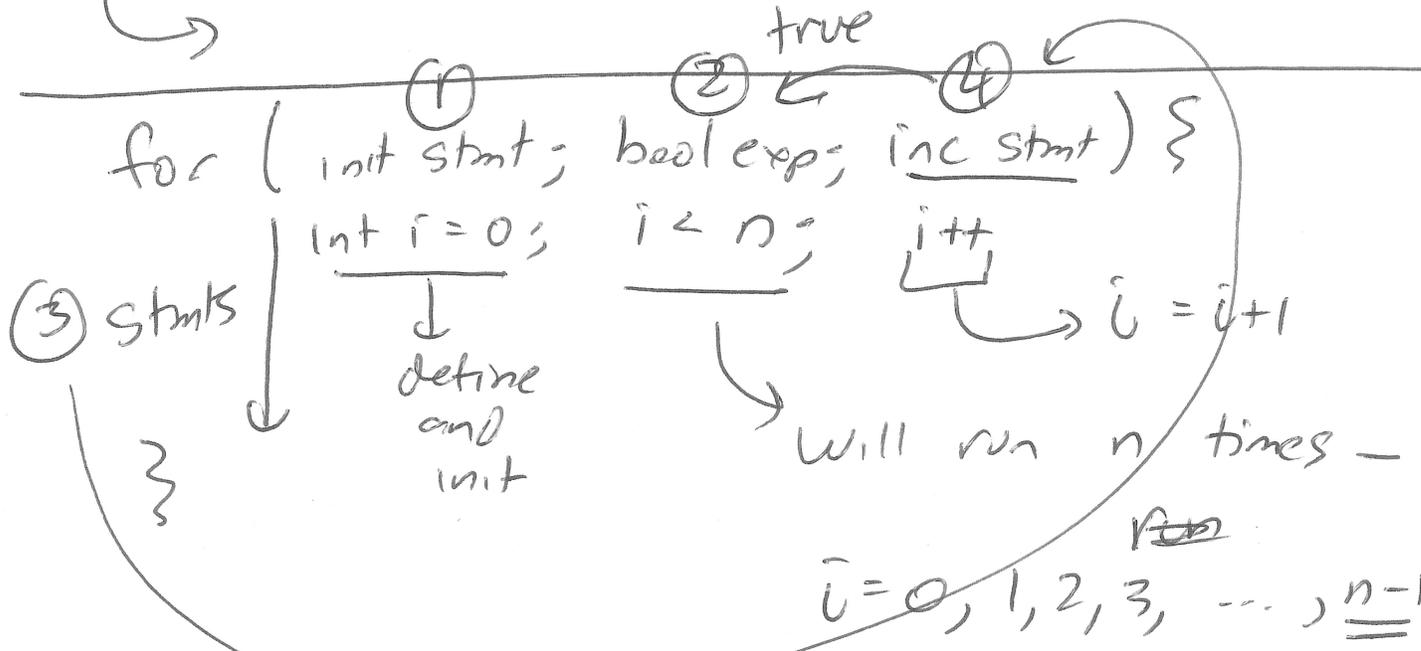   while
   do-while ⟶ Python doesn't have
   * break
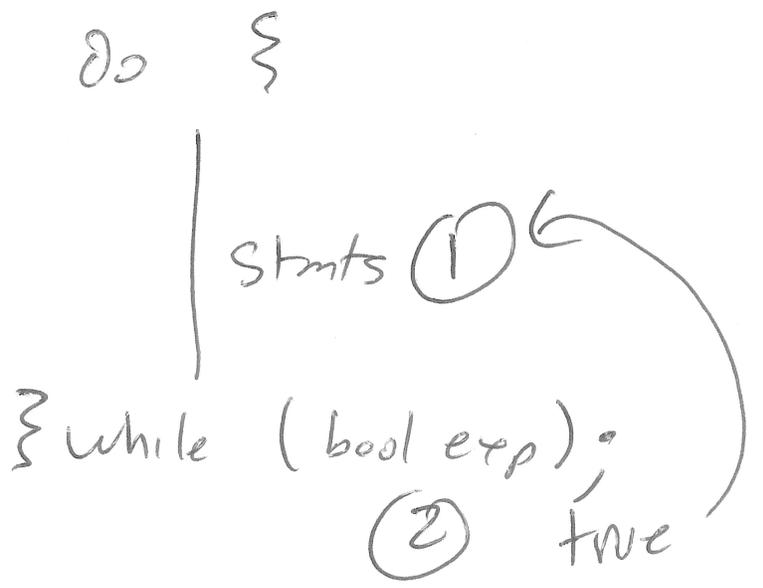   * continue } pay attention to these!
   nesting] → takes practice

while (boolean exp) ① 〔
               If true

(false)   stmts;   ②

〕

Good for
situations
where you know
where to stop but
don't know
repetition

---

                         true

①   ②   ④

for (init stmt; bool exp; inc stmt) 〔
       int $i=0$; $i<n$; $i++$

③ stmts
             ↓   → $i = i+1$
            define
〕   and   Will run   n   times —
            init
                          ~~from~~
               $i = 0, 1, 2, 3, \ldots, \underline{n-1}$

excellent when you know how many repetitions

---

do 〔

       stmts ①

〕 while (bool exp);
         ② true

Guarantees at
least 1 loop
iteration!

break

```
loop    {
    |stmtsA
    if (        )
        break;
    |stmtB
}
```
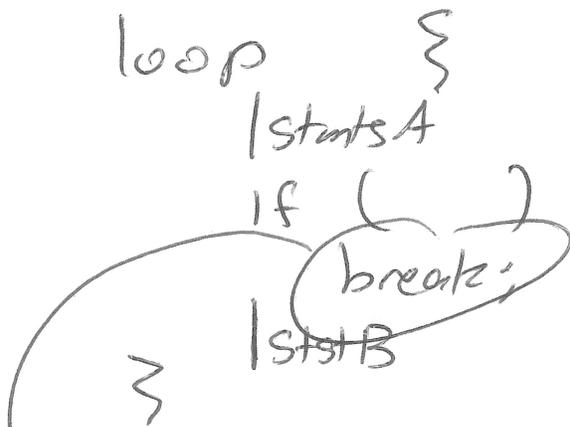
If executed, it immediately pops you out of the nearest loop you're in.

continue

```
loop    {
    stmtA
    if (      )
        continue
    stmtB

}
```
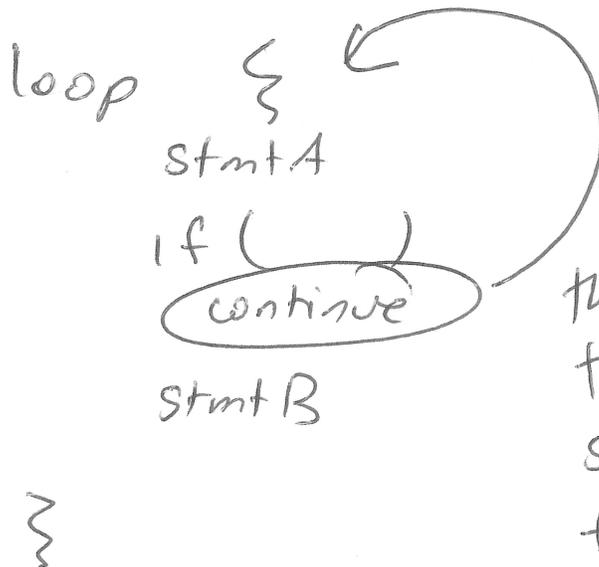
this pops back to the top of loop skipping over stmtB for that iteration only.