Pykidz!

A 'Kideveloper' initiative

I do I learn!

Loops!

Repeat that thing! – Iteration

While loop

```python
while <expr>:
    <statement(s)>
```

Changing path!?

Normal While Loop

```
1    while <truthy_expression>:
2            <block statement>
3            <block statement>
4            <block statement>
5            <block statement>
6            <block statement>
7            <block statement>
8            <block statement>
9            <block statement>
10           <block statement>
11
12   <statement> # outside the block
```
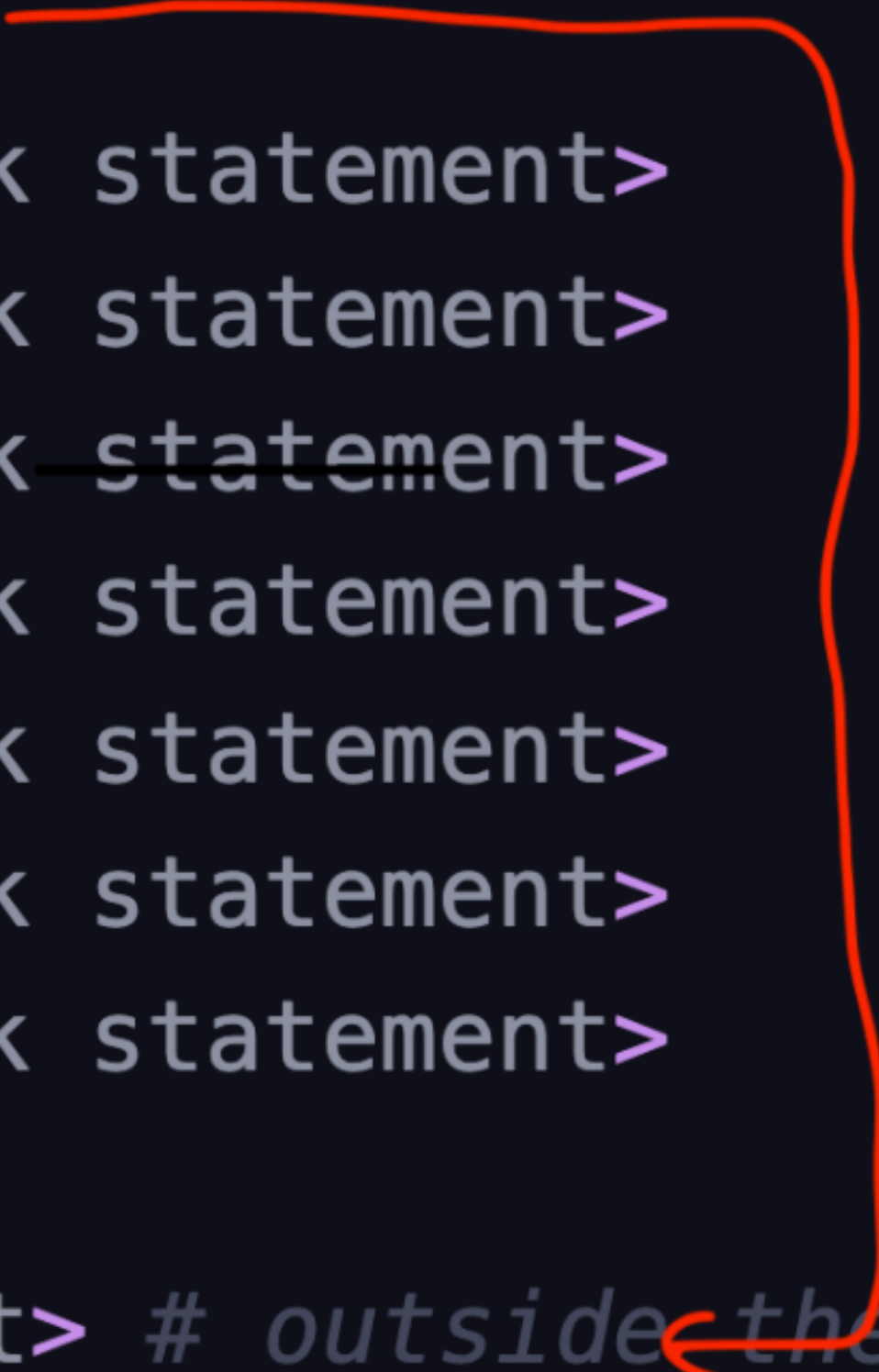
The 'break'

```
1    while <truthy_expression>:
2        <block statement>
3        <block statement>
4        break
5        <block statement>
6        <block statement>
7        <block statement>
8        <block statement>
9        <block statement>
10       <block statement>
11       <block statement>
12
13   <statement> # outside the block
```
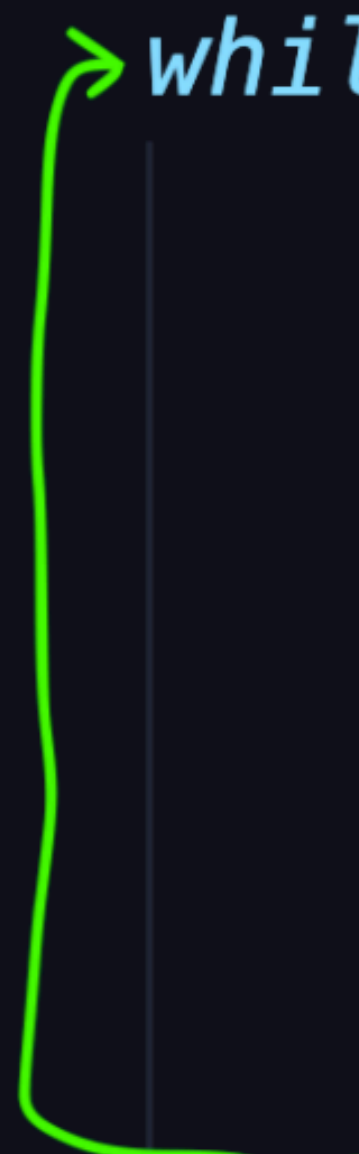
The 'continue'

```
1    while <truthy_expression>:
2         <block statement>
3         <block statement>
4         <block statement>
5         <block statement>
6         <block statement>
7         <block statement>
8         continue
9         <block statement>
10        <block statement>
11        <block statement>
12
13    <statement> # outside the block
14
```

Infinite Loops

Nested while loops

Nested while loop

```
while <expr1>:
    statement
    statement
    while <expr2>:
        statement
        statement
```

Nested while - change path

```python
while <expr1>:
    statement
    statement
    while <expr2>:
        statement
        statement
        break
    break
```

For loop

```
for <var> in <iterable>:
    <statement(s)>
```

Iterables & Iterators

For loop innards

For Looping other things

Break, Continue and Nest

Problems?!?

Problem: Guess a number?

- Build a simple game: The program randomly picks a number between 1 – 100. The user has 10 guesses. At each guess the program should tell if the user's guess is lower or higher than the picked number. If the user finds the number say 'Hurray'. If the 10 tries are complete then say 'Sorry' and tell the picked number. After either come out of the program.

I do I learn!