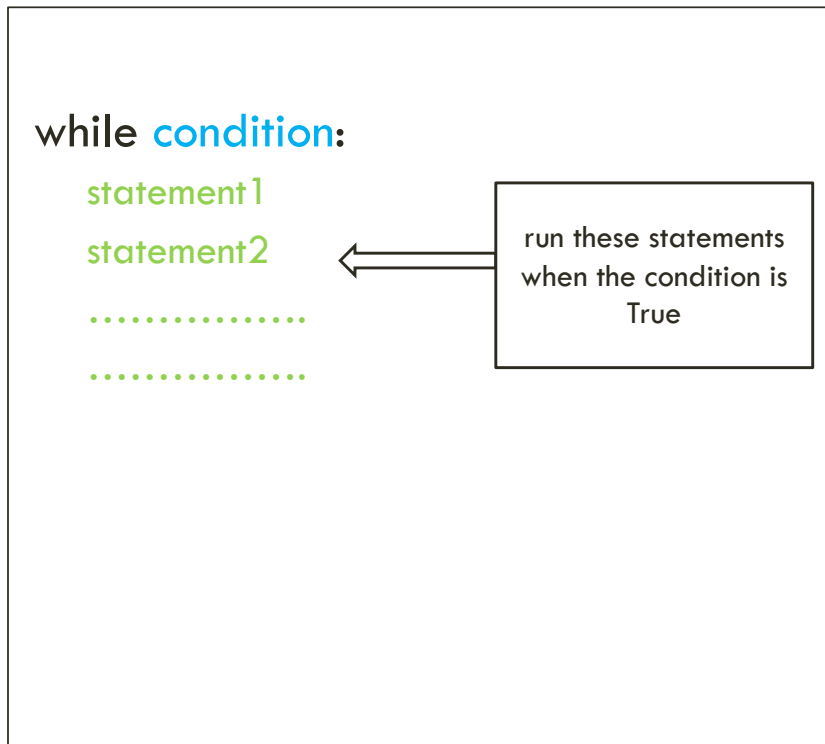


# WHILE...DO...LOOP STATEMENT

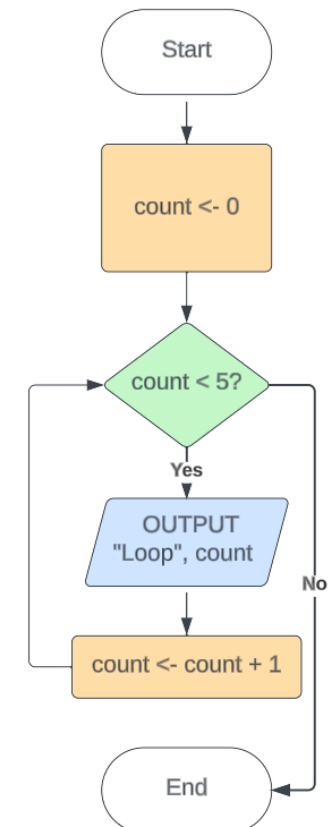


```

23 counter = 0
24 while counter < 5:
25     print('loop',counter)
26     counter = counter + 1
  
```

```

loop 0
loop 1
loop 2
loop 3
loop 4
  
```



# WHILE...DO...LOOP STATEMENT

- While do loop is usually used to validate the data
- Example
  - Math score must be between 0-100 only but user might mistype e.g. 700 or -50, the program should not allow incorrect data to be processed

```
28 score = int(input('Enter your score: '))
29 while score < 0 or score > 100:
30     print('Invalid score, score must be 0-100')
31     score = int(input('Enter your score: '))
32 print('Your math score is', score)
```

```
Enter your score: 150
Invalid score, score must be 0-100
Enter your score: -50
Invalid score, score must be 0-100
Enter your score: 60
Your math score is 60
```

# WHILE...DO...LOOP STATEMENT

## 2. Summing Numbers:

python

```
total = 0
number = 1
while number <= 10:
    total = total + number
    number = number + 1
print("The sum is:", total)
```

## 5. Countdown:

python

```
count = 10
while count >= 1:
    print(count)
    count = count - 1
print("Blastoff!")
```

# INFINITE LOOP

What happens if these code are run?

```
while True:  
    print('Hello')
```

# BREAK STATEMENT

break can be used to stop the current loop

```
34 import random
35 while True:
36     number = random.randint(0, 99)
37     print(number)
38     if number == 99:
39         break
40 print('loop is stopped')
```

# EXERCISE

## Number Guessing Game:

Develop a number guessing game where the program generates a random number between 1 or 100, or the user has to guess it. The program should provide hints (higher/lower) until the user guesses the correct number.