Flow Control (while loop)

Chapter 02b

while Loop an Unknown number of times

- Do something WHILE a condition is **True**.

Flow Control Statements: while loop

SYNTAX:

```
while condition:
        indented block of code executed
        indented block of code executed
        ……
        ……
```

#while the condition is **True**, the while block of code is executed.

#when the while condition is **False**, program execution will not execute the while clause, program execution will continue after.

Flow Control Statements: while loop

```
while True:
        print('Good Job!')
```

#while the condition is **True**, the while block of code is executed. Program control returns back to the while condition.

#when the while condition is **False**, program execution will not execute the while clause, program execution will continue after.

Flow Control Statements: while loop

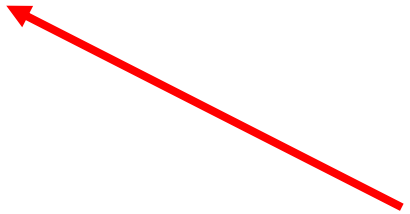
Trapped in an Infinite Loop

Ctrl - C

Flow Control Statements: while loop

```
while True:
        print('Good Job!')

print('Have a Nice Day!')
```



will never print, because the while loop will remain True

Flow Control Statements: while loop

In-Class Exercise: main.py

```
spam = 0
while spam < 5:
        print('Good Job!')
```

Spam	Condition	True or False

Flow Control Statements: while loop

In-Class Exercise: main.py

```
spam = 0
while spam < 5:
        print('Good Job!')
        spam = spam + 1
```

Spam	Condition	True or False

BREAK Statement and CONTINUE statement

- **break** statement is used to exit a loop
- Program execution continues after the while loop.
- Use keyword
  - **break**

BREAK Statement and CONTINUE statement

```
while True:
    name = input('Enter your name, quit to STOP')

    if name == 'quit':
        break

print(‘Thank You')
```

BREAK Statement and CONTINUE statement

- **continue** statement are used inside loops
- Program execution jumps back to the start of the loop and the condition is reevaluated.
- Use keyword
  - **continue**

BREAK Statement and CONTINUE statement

```
while True:
    name = input('Who are you?')

    if name != 'Joe':
        continue
    print('Hello, Joe. What is the password')
    password = input()
     if password == 'swordfish':
        break
print('Access granted')
```