Flow Control (while loop)

while Loop

- Do something WHILE a condition is **True**.
- Loop will STOP when condition is **False**.

SYNTAX: while loop

while **condition**:

indented block of code executed

......

......

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

#when the while condition is **False**, loop will STOP program execution will continue after the while loop.

Enter the following code: Save as today's_date.py

```python
while True:
    print("Good Job!")
```

while True:

    print("Good Job!")

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

#when the while condition is **False**, loop will STOP program execution will continue after the while loop.
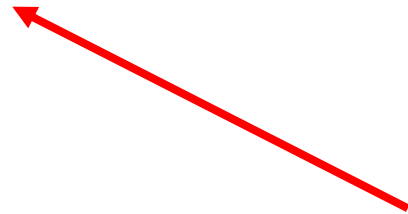
Trapped in an Infinite Loop

Ctrl - C

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

print("Have a Nice Day!")

#will never print, because the while loop will remain True

Enter Code in: today's_date.py

num = 0

while num < 5:

    print("Good Job!")

num	Condition (True or False) num < 5

Enter Code in: today's_date.py

```python
num = 0
while num < 5:
    print("Good Job!")
    num = num + 1
```

num	Condition (True or False) num < 5

SYNTAX: while loop **with else**

while **condition**:

indented block of code executed

......

......

else:

indented block of code executed

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

#when the while condition is **False**, the else block of code will be executed.

From Programiz.com: Python while loop with else

Enter Code in: today's_date.py

```python
counter = 0
while counter < 3:
    print("Inside loop")
    counter = counter + 1
else:
    print("Inside else")
```

counter	Condition (True or False) counter< 3

From Programiz.com: Python while loop to sum the numbers from 1-10.

Enter Code in: today's_date.py

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

num	sum	inc	Condition (True or False) inc < = num