
Control Flow

For & While -loops

Assignment 2 Q1.

```
user_input = int(input("What year student are you? "))

if user_input is 1:
    print("Welcome to York University!")
elif user_input is 2:
    print("Almost halfway done!")
elif user_input is 3:
    print("Just a little more!")
elif user_input is 4:
    print("Final stretch!")
else:
    print("Please answer with a number between 1-4.")
```

Assignment 2 Q2.

```
user_input = input("Give an example input. ")

try:
    int(user_input)
    print("Your input was an integer.")
except:
    print("Your input was a string.")
```

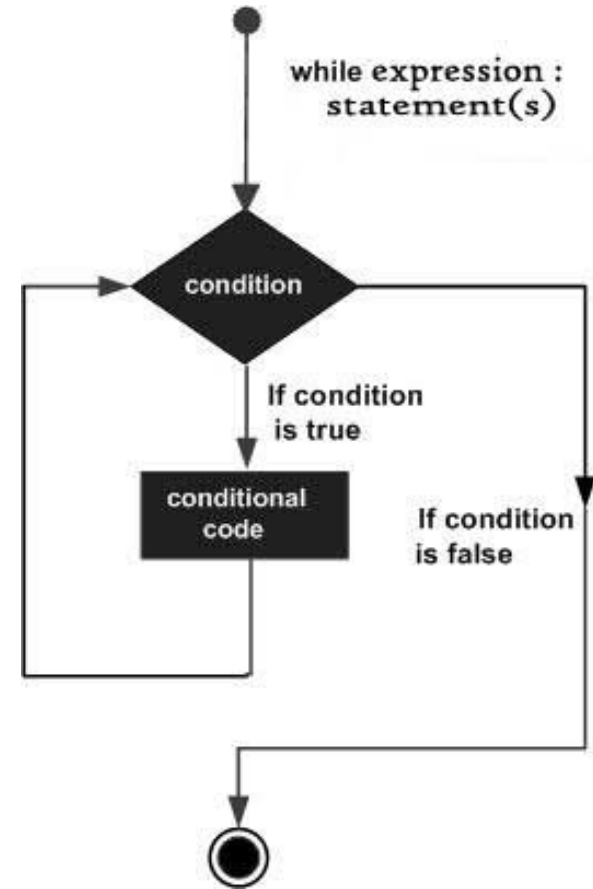
Assignment 2 Q2.-optional

```
user_input = input("Give an example input. ")
```

```
try:
    float(user_input)
    try:
        int(user_input)
        print("Your input was an integer.")
    except:
        print("Your input was an float.")
except:
    print("Your input was an string.")
```

While()

Allows repeated execution until condition is true



Example

While **a** is less than 7 continue

If the remainder of **a** divided by 2 is 0

Print 'is even'

Else

Print 'is odd'

Add one to **a**

```
1 a = 1
2 while a < 7 :
3     if(a % 2 == 0):
4         print(a, "is even")
5     else:
6         print(a, "is odd")
7     a += 1
```

code

output

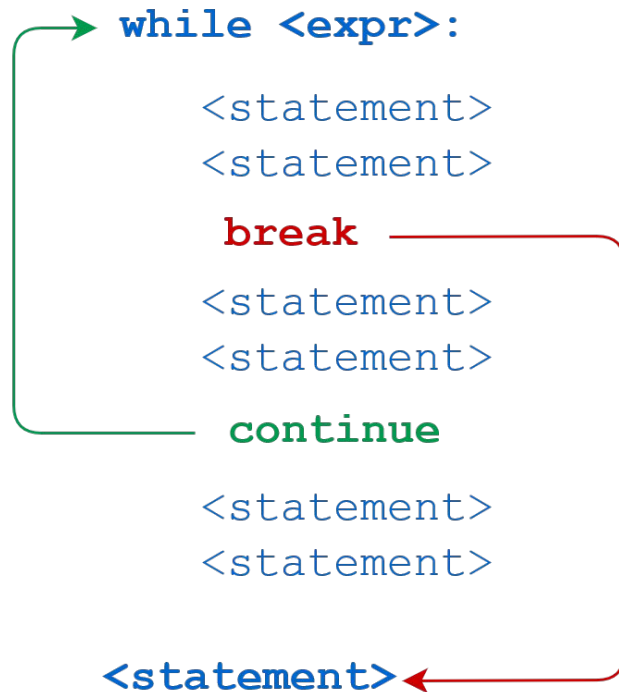
variables

Break vs Continue vs Pass

Break used to escape a loop

Continue used to move to next iteration

Pass



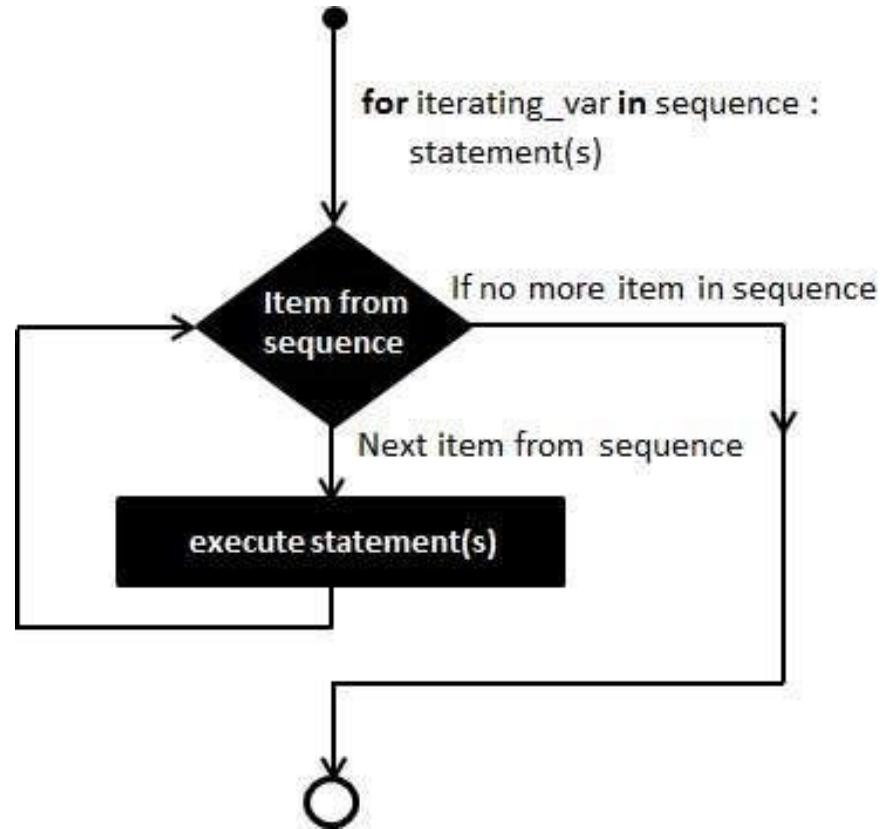
Demo

1. `while()`
2. `else()`

For()

For ... in

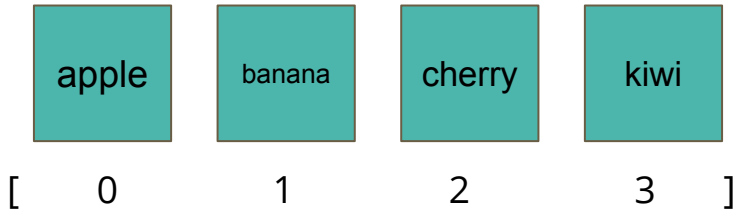
- iterates over sequence of objects



Array-list

Syntax:

```
shoppingCart = ["apple", "banana", "cherry", "kiwi"]
```



Demo

1. `for()` in range
2. `else()`
3. `array []`
4. `break`
5. `continue`
6. `pass`

Class assignment 3

1. Write a python program that will go through every day of the week (Sunday to Saturday) and print out if it's a work day or a rest day.
 - a. weekday = ["Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"]
 - b. Mon-Fri are work days and Sat-Sun are rest days
 - c. Write using a for-loop and then using a while-loop
2. Using the code from the class assignment last week: Write a program that takes in two integer numbers and divides them. Make sure the program doesn't break even if you give it values that it doesn't comprehend or that will cause the program to fail.
 - a. Make this program do the calculation and then ask for new parameters until an exit statement is given
 - b. Exit statement is "Exit"

Form

Assignment 3

1. Write a python program that will print out if a number is even or odd. Use a loop to print out all the numbers from 1 to 17 stating if it is odd or even.
 - a. Use a for() loop
 - b. Example:
 - i. 1 is odd
 - ii. 2 is even
2. Write a python program that will list the first five prime numbers.
 - a. Use a while() loop