# 100 Days Python Challenge

## DAY2

### Reserved Types, constants, Data types, Type conversions

#### 1)Reserved Words

Reserved words are Predefined words which are already taken by the compiler to execute tasks.

Some of the reserved words are as follows: False, true, and, as, break, class, if, def, delete, else, elif, accept, return, from, for, global, try, import, in, yes, Lambda, while, not, or, pass, raise, finally, continue, nonlocal, with, yield.

#### 2)**Constants**

Constants are fixed value such as numbers, letters and strings are called constants as their value does not change.

There are two types of constants: 1) numerical constants.
2) string constants.

In [3]:

```
## Example of constants
print(123)

print(98.6)

print("Hello World")
###the above all are print statements
```

```
123
98.6
Hello World
```

**3) Data Types** Every value in Python has a data type should there are three types of data types: 1)int:numerical values ranging from positive to negative are integers

```
    2)float:The numbers with decimal points

    3)Complex.Complex numbers are written in the form of X+YJ where x ithe real part
  and y is the imaginary part.
```

In [7]:

```
##Examples of Data Types are as follows

##int example:

print(133)

#float example:

print(10.2)

#complex Example:

a=2+2j
type(a)
print(a, "is Complex number", isinstance(1+2j,complex))
```

```
133
10.2
(2+2j) is Complex number True
```

**4) Type Conversions**

Type conversion is the process of changing the data type of a specified value

The different kind of type conversion which are supported by Python are as follows:

1) conversion of int to float and vice versa.

2) conversion of strings to int provided that the specified value inthe string is an number.

3) conversion of strings to float provided the specified values in the form of a floating point number.

In [18]:

```
## type conversion of int to float

a=12
print("before",type(a))
print(a)
a=float(a)

print("now",type(a))
print(a)
```

```
before <class 'int'>
12
now <class 'float'>
12.0
```

In [20]:

```
## convresion of String to number

a="123"
print(type(a))##prints what is the type of the mumber
print(a) ##prints the value of a

a=int(a)  ##a is again converted to int
print(type(a)) ##prints the type
print(a) ##prints the new datatype of a
```

```
<class 'str'>
123
<class 'int'>
123
```

In [21]:

```
## convresion of String to float number

a="123"
print(type(a))
print(a)

a=float(a)
print(type(a))
print(a)
```

```
<class 'str'>
123
<class 'float'>
123.0
```

In [27]:

```
## now we dig deep and move on to taking a user input to convert.

a=input(" Enter a number ")##input keyword is used to take value from.
print(type(a))
b=int(a)
print("now",b,type(b))
```

```
 Enter a number 123
<class 'str'>
now 123 <class 'int'>
```

In [26]:

```
a=input(" Enter a number ")##input keyword is used to take value from user.
print(type(a))
b=float(a)
print("now",b,type(b))
```

```
 Enter a number 123
<class 'str'>
now 123.0 <class 'float'>
```

# thats all for todav

**Next day, we do operations, arithmethic, logical, boolean.**