



Hello Jupyter Word!

We’re going to see a few basic structures in *python* to turn from 0 to hero:

Basic DataTypes:

- Integers
- Floats
- Strings
- booleans

Basic operations:

1. Initialize:

```
In [12]: a = 3 # integer

b = 3.14 # float

myString = "hello word" #string

myBool = True #boolean
```

1. Casting:

```
In [11]: x = float(a)
y = int(b)
z =str(myBool)
j = int(myBool)

print(x)
print(y)
print(z)
print(j)
```

3.0
3
True
1

1. Basic mathematical operations:

```
In [35]: print("a + b =%0.2f"%(a+b)) # addition
print("b - a =%0.2f"%(b-a)) # substraction
print("a x 3 =",a*3) # multiplication
print("6 / b= ",6/b) # division
```

a + b =6.14
b - a =0.14
a x 3 = 9
6 / b= 1.910828025477707

1. String methods

```
In [53]: poe ="We loved with a love that was more than love."
print(poe)

print("number of items:",len(poe))

print("o"in poe) # check if a char is in a string

print(poe.upper()) #upperCase

print("number of times that word love appears",poe.count("love")) #count specific value
print(poe.replace("love","hate")) # replace specific char or group of chars
```

We loved with a love that was more than love.
number of items: 45
True
WE LOVED WITH A LOVE THAT WAS MORE THAN LOVE.
number of times that word love appears 3
We hated with a hate that was more than hate.

1. Booleans

```
In [62]: a = 5
b = 10
print(a>b) # return false a is not greater than b
print(a<b) # return true a is not greater than b
if isinstance(poe,str): # return true if an object is an instance of a class
    print("variable poe is a string")

if b%2 is not myBool: # check if the result of the modulus is not equal to the value of myBool
    print("is even")
```

False
True
variable poe is a string
is even