NOTEBOOK BASICS

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** Bold**

Bold

- bold *

IB

- ***IB***

- noraml text

- sublist 1
- sublist 2

1. ordered list element 1
2. ordered list element 2

```
!(download.png)[jupyter logo]
```

Jupyter Logo (download.png)

- [] option 1
- [] option 2
- [] option 3

In [ ]:

In [ ]:
```
<img src= "download.png" float="left">
```

- option1
- option2
- [x] name

<img src="download.png" style=float:"right">

- option1
- option2
- option3

I get 10 times more traffic from [Google] 1 (http://google.com/) than from [Yahoo] 2 (http://search.yahoo.com/) or [MSN] 3 (http://search.msn.com/).

printf("Hello Markdown")

http://google.com/ (http://google.com/) "Google"

Python Basics

Python version 3.7

In [15]:
```
# Python Comments

print("Good Afternoon","!",end="||") # Basic Output
print("Hello Python")
```

```
Good Afternoon !||Hello Python
```

Type *Markdown* and LaTeX: α^2

Data Types & Conversion

- int
- float
- string

In [55]:
```
type(a)
s1 = "Python"
type(s1)

f1 = 12.345
type(f1)

float(str(int(f1)))
```

Out[55]:
```
12.0
```

In [ ]:
```
### Assignment
```

In [30]:
```
n1 = 123456 # Single Variable Assignment
n2 = n3 = n4 = n1 # Multi Variable Assignment of the
a, b, c = 123, 234, 345 # Multi Variable
```

Arithmetic Operations

- +
-
  - // **

In [60]:
```
n1 % 11
n3 = n2 ** 12
type(n3)
len(str(n3))

atoms = 10 ** 82
len(str(atoms))
type(str(atoms))

122321 ** 9
```

Out[60]: 6130687873308026945890176790042303730066739281

In [ ]:

Conditionals

In [72]:
```
if atoms < 10 ** 96:
    print("TRUE")
else:
    printf("FALSE")
```

TRUE

In [80]:
```
# Check if a number is even

n= 123
if n % 2 == 0:
    printf("Even")
else:
    print("odd")
```

odd

In [84]:
```
# Find the greatest of 3 numbers

n1 = int(input("Enter the firsst number"))
n2 = int(input("Enter the second number"))
n3 = int(input("Enter the third number"))

if n1 > n2 and n1 > n3:
            print(n1, "is the greatest")
elif n2 > n3:
    print(n2, "is the greatest")
else:
    print(n3, "is the greatest")
```

```
Enter the firsst number-1
Enter the second number-50
Enter the third number-100
-1 is the greatest
```

In [89]:
```
# Check is a year is a Leap year

n = int(input("Enter the year"))

if  n%400==0  or (n % 100 !=0 and n%4 ==0):
     print(n,"is a leapyear")
else :
     print(n,"not a leapyear")
```

```
Enter the year2004
2004 is a leapyear
```

In [102]:
```
# Calculate the number of digits in a number

n = int(input("Enter the number"))
count = 0
while (n > 0):
    n = n // 10
    count = count + 1
print("Total number of digits",count)
```

```
Enter the number672136732673246
Total number of digits 15
```

In [3]:
```
#  Check if a number is a multiple of 10
n = int(input("Enter the number"))

if  n % 10 == 0:
    print(n,"is a multiple of 10")
else:
     print(n, "is not a multiple of 10")
```

```
Enter the number30
30 is a multiple of 10
```

In [ ]:
```

```

In [105]:
```
# Check the given string is equal to a number
s1 = "123456"
n1 = 123456
if str(n1) == s1:
    print(n1, "is equal to",s1)
else:
    print(n1,"is not equal to",s1)
```

```
123456 is equal to 123456
```

In [104]:
```
# Calculate the square root of a number
n1 = 123
n1 ** 0.5
```

Out[104]:
```
11.090536506409418
```

In [113]:
```
# Calculate the number  of nano sec ina
# Given year(considering leap year logic)
year = 2016
if year % 400 == 0 or (year % 100 != 0 and year % 4 == 0):
   print(366 * 24 * 60 * 60 * (10**9))
else:
    print(365 * 24 * 60 * 60 * (10**9))
```

```
31622400000000000
```

In [ ]:
```

```