Introduction to Python

Python 3.7

- Scripting Language
- Object Oriented
-

In [7]:

```
# hash will be used to comment a single comment

print("Hello Peter !",end=' ') # Basic Output
print("Good Evening Python")
```

```
Hello Peter ! Good Evening Python
```

In [ ]:

```

```

Assignment Operator

In [27]:

```
n1=10 # Single Variable assignment

n2 = n3 = n4 = n1 # Multi-Variiables assignment with same value

a,b,c=222,333,444 # Multi-Variiables assignment with Multible values

print(a,b,c)
```

```
222 333 444
```

In [ ]:

```

```

Data Types and Type Conversions

- int
- float
- strings

In [35]:

```
print(type(a))

x=12.4
y="Anil Peter"

print(type(x))

print(type(y))
```

```
<class 'int'>
<class 'float'>
<class 'str'>
```

Arthimetic Operations

- +
- -
- *
- /
- %

In [34]:

```
n1%6

n3=n2**99999

print(type(n3))

print(len(str(n3)))
```

```
<class 'int'>
100000
```

In [ ]:

```

```

Relational Operators

- ==
- !=
- >
- \<
- \<=
- >=

In [ ]:

```
```

Control Statements

if elif else

In [41]:

```
if a<b:
    print("a is big")
else:
    print("b is big")
```

```
a is big
```

In [1]:

```
# Check the number is even or odd
n=123
if n%2==0:
    print("Even")
else:
    print("Odd")
```

```
Odd
```

In [10]:

```
# Biggest of three Inputs

n1=int(input("Enter First Value"))
n2=int(input("Enter Second Value"))
n3=int(input("Enter Third Value"))

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

```
Enter First Value232
Enter Second Value2312
Enter Third Value234234
Enter Third Value3432
234234 is Biggest
```

In [ ]:

```
```

In [5]:

```
# Check weather the input year is Leap Year or not

year= int(input("Enter a Year"))
if((year%100!=0 and year%4==0) or year%400==0):
    print(year, "is an leap year")
else:
    print(year,"is not a leap year")
```

```
Enter a Year2016
2016 is an leap year
```

In [ ]:

```
# Check weather the given input is between the given ramges
n1=int(input("Enter a number"))
lb=int(input("ENter the lower boundary"))
ub=int(input("ENter the upper boundary"))
if (n1<=ub and n1<=lb):
    print("Given input is between the boundary")
else:
    print("Given input is not between the boundary")
```

In [16]:

```
x=input("Enter a number")
print(len(x))
```

```
Enter a number3243254354654
13
```

In [ ]:

```
# Check if the given number is multiple of ten
n1=int(input("Enter a number"))

if (n1%10==0):
    print(n1,"is the multiple of 10")
else:
    print(ni,"is the not multiple of 10")
```

In [16]:

```
# check if a number is factor of 1000
n1=int(input("Enter a number"))
if n1%10==0:
    print(n1,"is factor of 1000")
```

```
Enter a number30
30 is factor of 1000
```

In [17]:

```
# Calculate the square root of the given number without using any functions\
n1=int(input("Enter a number"))
n2=1/2
print("The Square Root of", n1 ,"is",n1**n2)
```

```
Enter a number4
The Square Root of  4 is 2.0
```

In [13]:

```
#Calculate the number of nanoseconds in the given year(consider the leap year)

year= int(input("Enter a Year"))
if((year%100!=0 and year%4==0) or year%400==0):
    print(366*24*60*60*(10**(9)),"NanoSeconds")
else:
    print(365*24*60*60*(10**(9)),"NanoSeconds")
```

```
Enter a Year2019
31536000000000000 NanoSeconds
```

In [ ]:

```

```