**PYTHON PROGRAMMING LANGUAGE**

**INTRODUCTION:**

Python is an interpreted, interactive, object-oriented programming language. It incorporates modules, exceptions, dynamic typing, very high level dynamic data types, and classes. It supports multiple programming paradigms beyond object-oriented programming, such as procedural and functional programming.

**DATATYPES OF PYTHON:**

1.int -> whole numbers - 1,100

2.float -> numbers with decimal point - 1.1, 100.0

3.boolean (bool)-> logical vlaues indicating true or false

4.Str -> words, number or special characters enclosed with single , double or triple quotes will be assumed as string in python

5.complex -> real number with imaginary part like (2+6j, 11j)

**DIFFERENCE BETWEEN PYTHON 2 AND PYTHON 3:**

1.syntax differences

eg:

print "hello world" -->py2 considered as statement

print ("hello world")-->py3 considered as function

2.python libraries

will not support python 2 libraies in python 3

3.Division mechanism

number will not be comes in decimal form in python 2 wherelse python gives exact values for calculation

but for division by using 5/2 as 5//2. u will get ans as like py2 in py3

4.ASCII values will not support in py2 but using unicode encoding makes possible in py3

5.Exceptions:

only one exceptions will be used in py3, in py2 raise more exception

6.comparing list length with strings length possible in py2 but not in py3 (not so useful)

7.Range function:

range function iterate numbers and xrange function returned as object in py2

where range function only appears but it works as both number and object in py3