Functions

- function is a group of related stements that performs a perticular task
- types of functions
  - predefined or inbuilt functions
  - userdefined function
- Syntax for functions: def functionname(parameters):

```
    statements()
```

  - def keyword means start the function header
  - function(based on user define it)
  - parameters(arguments) through which we pass values to function(option)
  - : is end of the function

In [1]:
```
# pre-defined functions or inbuilt functions
# 1.abs() abs is indicated as  absolute values to convert negative value to posi
a=-10
abs(a)
```

Out[1]: 10

In [2]:
```
a=19
abs(a)
```

Out[2]: 19

In [3]:
```
# bin() return binary version of specified integer
bin(10)
# 10 = 1010
```

Out[3]: '0b1010'

In [4]:
```
bin(16) # 10000
```

Out[4]: '0b10000'

In [5]:
```
# chr() returns charecter that represents the specific unicode)
chr(98)
```

Out[5]: 'b'

In [6]:
```
chr(97)
```

Out[6]: 'a'

In [7]:
```
chr(100)
```

Out[7]: 'd'

In [5]:
```
ord('a')
```

Out[5]:
```
97
```

In [15]:
```
# ord() # return char to ascii values
ord('8')
```

Out[15]:
```
57
```

In [20]:
```
ord('A')
```

Out[20]:
```
65
```

In [21]:
```
chr(65)
```

Out[21]:
```
'A'
```

In [6]:
```
# compile() return specifiedsource an object ready to be execute
# in compile we have 3 modes to prepresent 1. aval, 2. single, 3.exec
a=compile('print(123)','JNTUACEA','single')
exec(a)
```

```
123
```

In [33]:
```
# complex() returns complex number by specified realnumber and imaginary number
complex(3,7)
```

Out[33]:
```
(3+7j)
```

In [35]:
```
str
# dir() return a listout the specified objects properties and methods in directo
dir(list)
```

Out[35]:
```
['__add__',
 '__class__',
 '__contains__',
 '__delattr__',
 '__delitem__',
 '__dir__',
 '__doc__',
 '__eq__',
 '__format__',
 '__ge__',
 '__getattribute__',
 '__getitem__',
 '__gt__',
 '__hash__',
 '__iadd__',
 '__imul__',
 '__init__',
 '__init_subclass__',
 '__iter__',
```

In [38]:
```
# str() return strings
str(10)
```

Out[38]: '10'

In [39]:
```
# int()
int('10')
```

Out[39]: 10

In [40]:
```
float(10)
```

Out[40]: 10.0

In [7]:
```
a='jntuacea-ece'
len(a)  # reads length of characters in string
```

Out[7]: 12

In [43]:
```
a=['a',12,'cd']
len(a)
```

Out[43]: 3

In [44]:
```
a=[1,2,3,4,56]
max(a) # max is a boolean function find the max value
```

Out[44]: 56

In [45]:
```
min(a)
```

Out[45]: 1

In [47]:
```
# Boolean functions and data types in python
#list()
#dict()
#set()
#tuple()
list((1,2,3,4,5))
```

Out[47]: [1, 2, 3, 4, 5]

In [48]:
```
dict(name='venkatesh',id=123,address='gunutr') # dict - dictonary contains un or
```

Out[48]: {'name': 'venkatesh', 'id': 123, 'address': 'gunutr'}

In [51]:
```
tuple((1,2,3,45)) # collections of items like string or character enclosed by pa
```

Out[51]: (1, 2, 3, 45)

In [52]:
```
set((1,2,3,4,3)) # collection of unordered  unique items enclosed by flower brase
```

Out[52]:
```
{1, 2, 3, 4}
```

In [ ]:
```

```