

```

>>> c1=1+2j
>>> c1.real
1.0
>>> c1.imag
2.0
>>> c1.real=2
Traceback (most recent call last):
  File "<pyshell#3>", line 1, in <module>
    c1.real=2
AttributeError: readonly attribute
>>> c2=2j
>>> c2.real
0.0
>>> c2.imag
2.0

```

Boolean Data type

“bool” class is used to represent Boolean object.

Boolean values are logical values and these values are represented using two keywords.

1. True
2. False

```

rollno=1
fee=4000.0
fee_paid=True

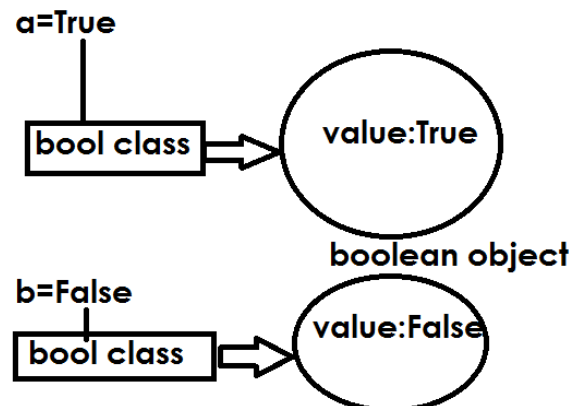
```

```

10>5 ==> True
5>10 ==> False

```

Python



Boolean expression/logical expression, an expression which return Boolean value(True/False). Boolean expression/logical expression is created using relational operators.

```

>>> b1=True
>>> b2=False

```

```
>>> type(b1)
<class 'bool'>
>>> type(b2)
<class 'bool'>
>>> 100>50
True
>>> 50>100
False
>>> 100==100
True
>>> 100==200
False
>>>
```

String literal

What is string?

String is a collection of characters and these characters can be alphabets, digits or special characters.

String sequence data type, where the characters are organized in memory in sequential order. String is a collection type.

str class is used to represent string object.

String literal or value is represented,

1. Within single quotes
2. Within double quotes
3. Within triple single quotes or double quotes

Within single quotes

Within single quotes we can represent single line string.

Within single quotes we can embed double quotes.

```
>>> course='python language'
>>> type(course)
<class 'str'>
>>> s1='python is a
SyntaxError: EOL while scanning string literal
>>> s1='python is a 'scripting' langauge'
SyntaxError: invalid syntax
>>> s1='python is "scripting" language'
>>> print(s1)
```

```
python is "scripting" language
>>> s2='45'
>>> s3='1.5'
>>> s4='1+2j'
>>> s5='python 3.10'
>>>
>>> print(s1,s2,s3,s4,s5)
python is "scripting" language 45 1.5 1+2j python 3.10
>>>
```

Within double quotes

Within double quotes we can represent single line string.
Within double quotes we can embed single quotes.

```
>>> str1="python programming language"
>>> print(str1)
python programming language
>>> str2="python is a
SyntaxError: EOL while scanning string literal
>>> str3="programming"
>>> print(str3)
"programming"
>>> str4="python is 'scripting' langauge"
>>> print(str4)
python is 'scripting' langauge
>>>
```

Triple single quotes or double quotes

Triple single quotes or double quotes are used to represent multiline string.
In python the string which is represented in triple quotes is called doc string (document string).

```
>>> str1="python is a
programming langauge,
scripting langauges,
oop langauges"
>>> print(str1)
python is a
programming langauge,
scripting langauges,
```

```

oop langauges
>>> str2="""python is a
programming langauge,
scripting language,
oop langauge"""
>>> print(str2)
python is a
programming langauge,
scripting language,
oop langauge
>>> str3="monty python's flying circus"
>>> print(str3)
monty python's flying circus
>>>

```

Escape sequences/characters

```

\n → newline
\t → tab space
\\ → \
\" → “
\' → ‘

```

```

>>> str1='python\njython\nrpython\nironpython'
>>> print(str1)
python
jython
rpython
ironpython
>>> str2='monty python\'s flying circus'
>>> print(str2)
monty python's flying circus
>>> str3="\python is easy\"
>>> print(str3)
"python is easy"
>>>

```