Experiment 1

Aim: To implement Arithmetic Operators using Python.

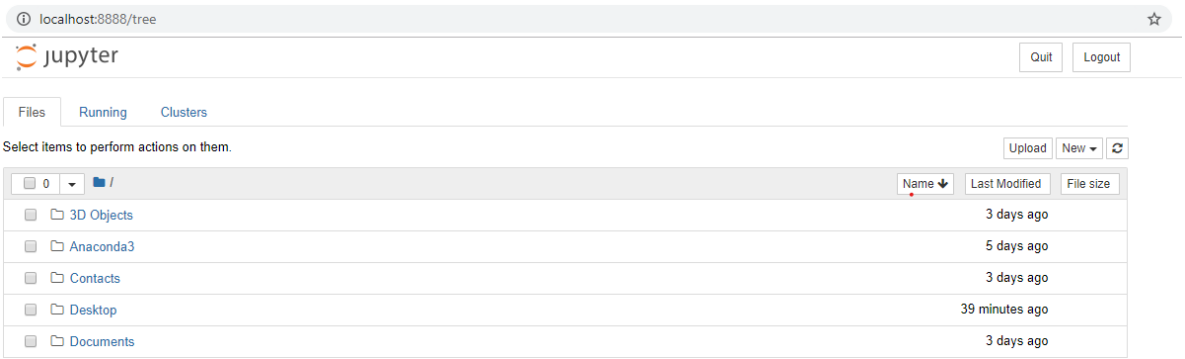
Theory: Arithmetic Operators:

Assume two variables a and b; a=10 and b=2.

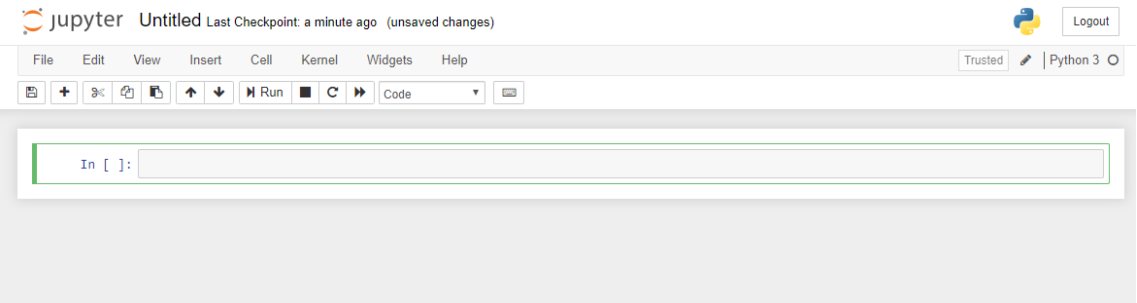
Arithmetic Operator	Symbol	Description	Example
Addition	+	Adds the operands.	a+b = 12
Subtraction	-	Subtracts the second operand from the first.	a-b = 8
Multiplication	*	Multiplies the operands.	a*b = 20
Division	/	Divides the first operand by second operand and gives the quotient as output.	a/b = 5
Modulus	%	Divides the first operand by second operand and gives the remainder as output.	a%b = 0
Exponent	**	Performs exponential calculation, i.e. first operand to the power of the second operand.	a**b = 100
Floor division	//	Divides the first operand by second operand and gives the quotient as output. It rounds off the value if a decimal is obtained in the result	a//b = 5

Steps:

1. Open Jupyter Notebook.



2. Open a New File by clicking New → Python3; a new python3 file opens, where we will be writing the codes.



3. Example Code: #Addition *# indicates this is a comment*

   3+5 *using + operator to add 3 and 5*

4. To obtain the result, press "**Ctrl+Enter**".

Code: In: #Addition

3+5

Out: 8

In: #Subtraction

54-46

Out: 8

In: #Multiplication

2*3

Out: 6

In: #Division

35/7

Out: 5.0

```
In [5]: "mj"+5
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-5-2095fa0e2900> in <module>
----> 1 "mj"+5

TypeError: can only concatenate str (not "int") to str
```

#string+int gives an error

```
In [6]: "mj"+"5"
Out[6]: 'mj5'
```

#string+string gives output

```
In [7]: "mj"*5
Out[7]: 'mjmjmjmjmj'
```

#string*int gives output

Observation: The return type depends on the operands.

Practice Questions:

1. Write and implement a code for evaluating remainder, quotient; for variables a=5 and b=3.
2. Write and implement a code for evaluating exponent; for variables a=10 and b=2.
3. Consider strings “python” “is” “awesome”, implement a code to get an output: ‘python is awesome!’