



-- BASIC PYTHON PROGRAMMING

```
In [1]: import sys  
sys.version
```

```
Out[1]: '3.12.7 | packaged by Anaconda, Inc. | (main, Oct 4 2024, 13:17:27) [MSC v.1  
929 64 bit (AMD64)]'
```

work with numbers

Arithmetic operators

```
In [2]: 3 #Numeric data types
```

```
Out[2]: 3
```

```
In [5]: 2
```

```
Out[5]: 2
```

```
In [2]: 3 + 2 #Addition
```

```
Out[2]: 5
```

```
In [6]: 3 - 2 #Substraction
```

```
Out[6]: 1
```

```
In [7]: 3 * 2 #Multiplication
```

```
Out[7]: 6
```

```
In [8]: 3 ** 2 #Exponential
```

```
Out[8]: 9
```

```
In [9]: 10 / 5 #Division
```

```
Out[9]: 2.0
```

```
In [10]: 10 // 5 #integer division / floor division
```

```
Out[10]: 2
```

The % "modulo" operator gives us the remainder after division.

```
In [4]: 100 % 2 # "100 mod 2", or the remainder when 100 is divided by 2
```

```
Out[4]: 0
```

Strings

```
In [11]: # work with string
```

Text is stored as a data type called a string. We can think of a string as a sequence of characters.

Actually they are a sequence of Unicode code points

We write strings as characters enclosed with either:

single quotes, e.g., 'Hello' double quotes, e.g., "Goodbye"

```
In [13]: nareshit
```

```
-----
NameError                                Traceback (most recent call last)
Cell In[13], line 1
----> 1 nareshit

NameError: name 'nareshit' is not defined
```

```
In [14]: 'nareshit' #Single quote
```

```
Out[14]: 'nareshit'
```

```
In [15]: " nareshit " #Double quote
```

```
Out[15]: ' nareshit '
```

```
In [16]: ''' naresh it ''' #Triple quote
```

```
Out[16]: ' naresh it '
```

```
In [19]: type('nareshit')
```

```
Out[19]: str
```

variable = object

```
In [7]: v = 5 #v - variable & 5 for value
v
```

Out[7]: 5

In [8]: `type(v)`

Out[8]: `int`

NameError: name 'v2' is not defined error in Python, you need to make sure that the variable is properly defined and assigned a value before it is used

In [9]: `v1 = 'nit'`
`v2`

```
-----  
NameError                                Traceback (most recent call last)  
Cell In[9], line 2  
      1 v1 = 'nit'  
----> 2 v2  
  
NameError: name 'v2' is not defined
```

In [10]: `v1`

Out[10]: `'nit'`

In []: