

# Data Type and Variable

Algoritma Pemrograman, Data Type, Variable

## Numeric Value



Positive (+)

Negative (-)

Data Type

Integer

Float

Algoritma Pemrograman, Data Type, Variable

```
>> type(value)
```

```
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Python console
C:\Users\Indah Agustin
Python 3.7.3 (default, Apr 24 2019, 15:29:51) [MSC v.1915 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 7.6.1 -- An enhanced Interactive Python.

In [1]: type(134)
Out[1]: int

In [2]: type(-53)
Out[2]: int

In [3]: type(0.5)
Out[3]: float

In [4]: type(-123.7)
Out[4]: float

In [5]:
```

Algoritma Pemrograman, Data Type, Variable

## Text Value

*'Hello World'*

**'Semester 1'**

*'Teknik Informatika'*

*'Algoritma Pemrograman'*

ABCDEF  
GHIJKL  
NOPQRST  
UVWXYZ

String

```
In [5]: type('algoritma Pemrograman')  
Out[5]: str
```

```
In [6]: type('B')  
Out[6]: str
```

```
In [7]: type(5)  
Out[7]: int
```

```
In [8]: type('5')  
Out[8]: str
```

# Variable



- ★ A **name** that refers to **a value**
- ★ A value is given to variable using **assignment operator**

```
>> variable = value
```

Algoritma Pemrograman, Data Type, Variable

```
In [9]: a=5  
  
In [10]: print(a)  
5  
  
In [11]: type(a)  
Out[11]: int
```

Algoritma Pemrograman

## Variable Names

- ★ Variable represents its value, it must be **meaningful**
- ★ Consists of character, characters, combination characters and numbers
- ★ Number are **not allowed** as **the first character** of a variable
- ★ Case sensitive

```
In [13]: a='surabaya'

In [14]: kota='surabaya'

In [15]: a1='surabaya'

In [16]: a2=100

In [17]: kota1='surabaya'

In [18]: 1a='surabaya'
File "<ipython-input-18-b631f0cd95c9>", line 1
    1a='surabaya'
      ^
SyntaxError: invalid syntax
```

```
In [20]: a=5

In [21]: A='surabaya'

In [22]: print(a)
5

In [23]: print(A)
surabaya
```

```
In [24]: a@=5
Traceback (most recent call last):

  File "<ipython-input-24-f296ebf4deeb>", line 1, in <module>
    a@=5
TypeError: unsupported operand type(s) for @=: 'int' and 'int'
```

- ★ Illegal character and Python Keywords are not allowed

False	class	for	as	elif	...
None	continue	finally	assert	else	...
True	def	from	...	...	
and	del	is			

```
In [26]: False=5
File "<ipython-input-26-99935a937b92>", line 1
  False=5
    ^
SyntaxError: can't assign to keyword
```