

Python Course

Variables, expressions,
Statements & Conditional execution

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Values and types

python :)

```
print(10)
```

```
#10
```

```
type('Python Course')
```

```
# <class 'str'>
```

```
type(98)
```

```
# <class 'int'>
```

```
type(1.7)
```

```
# <class 'float'>
```

```
type('30')
```

```
# <class 'str'>
```

Variables



python :)

```
message = 'karim and his friends'  
number = 17  
pi = 3.1415926535897931
```

```
print(number)  
#17
```

```
print(pi)  
# 3.1415926535897931
```

```
type(message)  
#<class 'str'>
```

Try these names

 python :)

```
23pycourse = "amazing"  
ye@r = 2023  
class = "python"
```

These names are
illegal



python :)

```
23pycourse = "amazing"
```

```
ye@r = 2023
```

```
class = "python"
```

```
# SyntaxError: invalid syntax
```

Python keywords

False	break	for	not
None	class	from	or
True	continue	global	pass
__peg_parser__	def	if	raise
and	del	import	return
as	elif	in	try
assert	else	is	while
async	except	lambda	with
await	finally	nonlocal	yield

Operators and operands

The operators +, -, *, /, and ** perform addition, subtraction, multiplication, division, and exponentiation, as in the following examples:

```
python :)
```

```
minute = 59
```

```
minute/60
```

```
# 0.9833333333333333
```

```
20+32
```

```
hour-1
```

```
hour*60+minute
```

```
5**2
```

```
(5+9)*(15-7)
```

Order of operations

PEMDAS

1. Parentheses
2. Exponentiation
3. Multiplication & Division
4. Addition & Subtraction



$5+9*15-7$

133

$(5+9)*(15-7)$

112

$5+9*15**7$

1537734380

User input

When this function is called, the program stops and waits for the user to type something. When the user presses Return or Enter, the program resumes and input returns what the user typed as a string.



python :)

```
name = input('What is  
your name?\n')  
# What is your name?  
# Matin  
print(name)  
# Matin
```

Conditional Execution

Boolean expressions

A boolean expression is an expression that is either true or false.



python :)

```
5 == 5
```

```
# True
```

```
5 == 6
```

```
# False
```

```
type(True)
```

```
# <class 'bool'>
```

comparison operator



python :)

`x == y`

`x != y`

`x > y`

`x < y`

`x <= y`

`x >= y`

Conditional execution



python :)

```
if x < y:  
    print('x is less than y')  
elif x > y:  
    print('x is greater than y')  
else:  
    print('x and y are equal')
```

Try and except



python :)

```
inp = input('Enter Fahrenheit  
Temperature:')  
try:  
    fahr = float(inp)  
    cel = (fahr - 32.0) * 5.0 / 9.0  
    print(cel)  
except:  
    print('Please enter a number')
```

Any question?

