

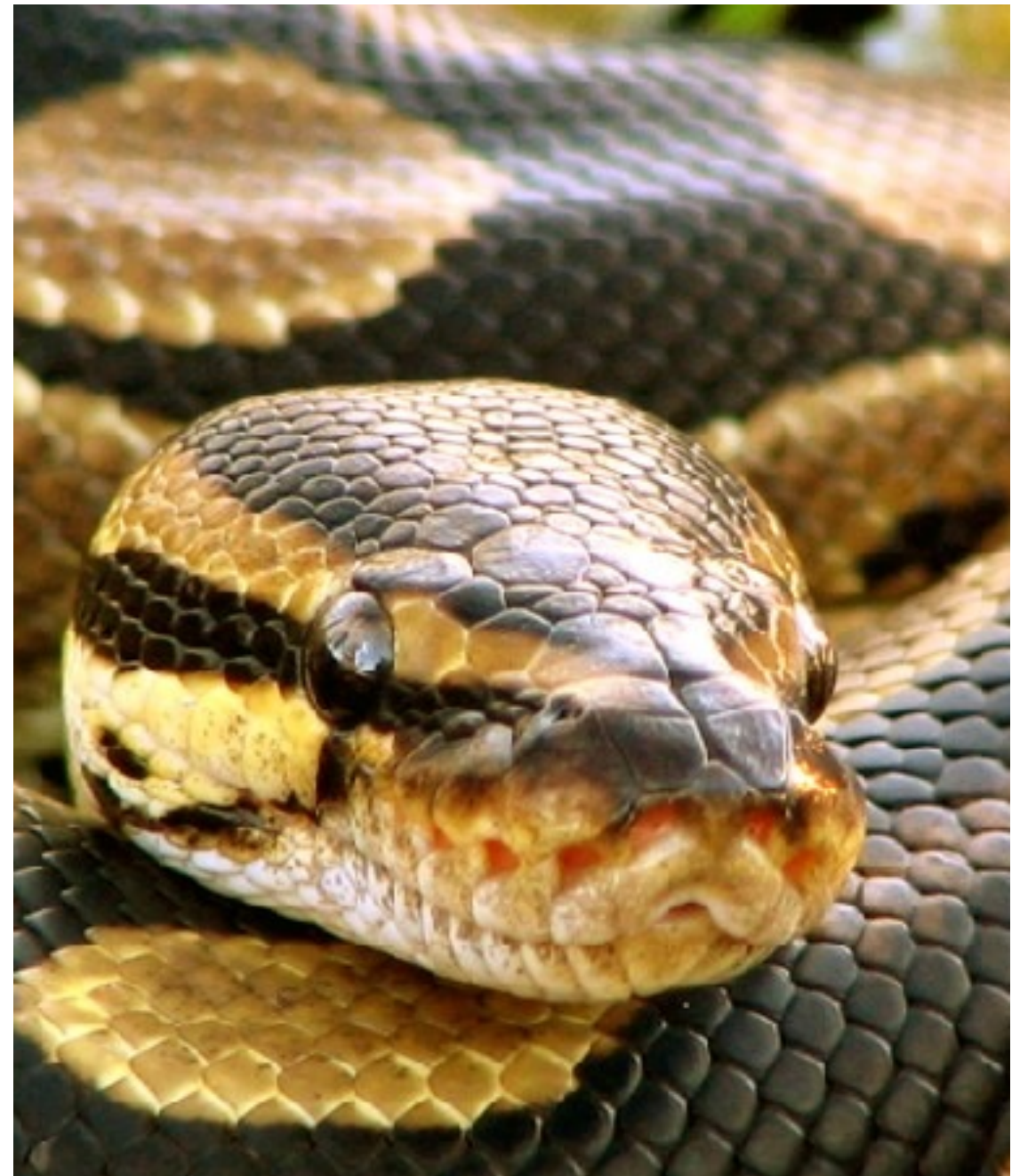
Python for Automation QA Engineers

Lesson - 0

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Introduction

- Why Python?
- What is Python?
- Data types Part 1.
- Main built-in functions and statements.
- Variable assignments.
- User's input.
- First Programm.
- 'if'/'else' statement in use.



Why Python?

- Easy to 'pick-up'.
- Used in QA a lot these days.
- Language popularity rises each year.
- Anything can be done using Python(for QA needs).
- Python comes with all Unix based OS's by default.
- Best readability within this group: Perl, Java, Ruby.
- Cross-platform compatibility.



What is Python?

- High-level programming language.
- C-based.
- Scripting language.
- Object-oriented.
- Interpreted.



Data types Part 1.

Standard Data Types

Number

String

List

Tuple

Dictionary

Boolean

Number

int	1	-45	99999
float	1.4	-434.5	0.1

String

str	'cat'	'50 dogs'	'50'	'%^\$&g'
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List

list	['cat', 1, 45, True]	['t']	[]
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Tuple

tuple	(1, 2)	(6, 'cat', False)
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Dictionary

dict	{'name': 'Ilya', 'age': 25, 2: -1}
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Boolean

bool	True	False
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Main built-in functions.

- `print()`
- `input()` or `raw_input()`
- `len()`
- `sum()`
- `min()` `max()`
- `range()`



Main built-in statements.

- import
- def
- assert
- pass
- in, is ('==')
- try, finally, while, for, if, else
- del



First program.

Title: 'Hello World!'

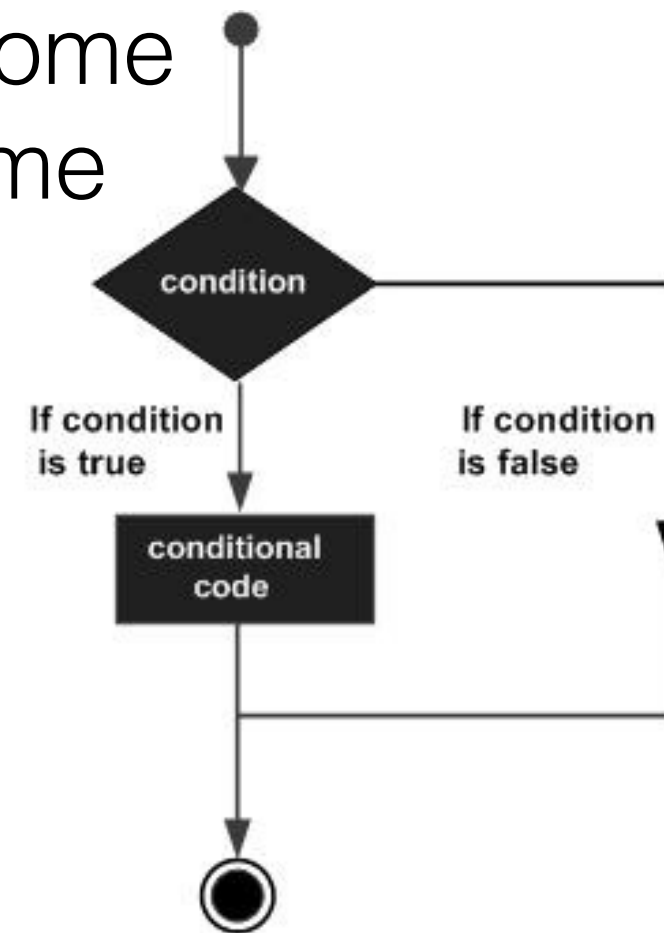
What will be used: print()

```
print('Hello World!')
```

'if' -> 'else' statement block.

- Purpose: 'if' -> 'else' block is used when some action(s) needs to be done based on some conditions.
- How to use(ex.):

```
if 1 == 1:  
    print('test')  
else:  
    pass
```



'input()' function.

- Purpose: 'input()' function takes string for output and returns external user's input;
- How to use(ex.):

```
a = input('Enter your name: ')\nprint('Your name is ' + a)
```

```
Enter your name: 'Ilya'\nYour name is Ilya
```

Mini test

- Write a small program which will do the following:
 1. Print phrase 'Do you want to make 120k?' with 'input()';
 2. If user answers 'yes' print 'Then you need to learn Python. If user answers 'no' print 'Then you do not need to learn Python.'.

Homework

1. Read about each of the discussed built in functions/statements. Look up for examples, play with it(2-3 hours);
2. Write a small program which will do the following(1 hour):
 - Print greeting message (like 'Hello user!');
 - Then will take user's input(int type) 2 times in a row;
 - Based on input:
 - A. if 1st input > then 2nd print 'First number is bigger then second one.';
 - B. if 2nd input > then 1st print 'Second number is bigger then first one.';
 - C. if they are equal print 'Numbers are equal.';
3. Print the sum of 2 numbers after all.