Python: Getting Started

Image courtesy: Wikimedia Commons

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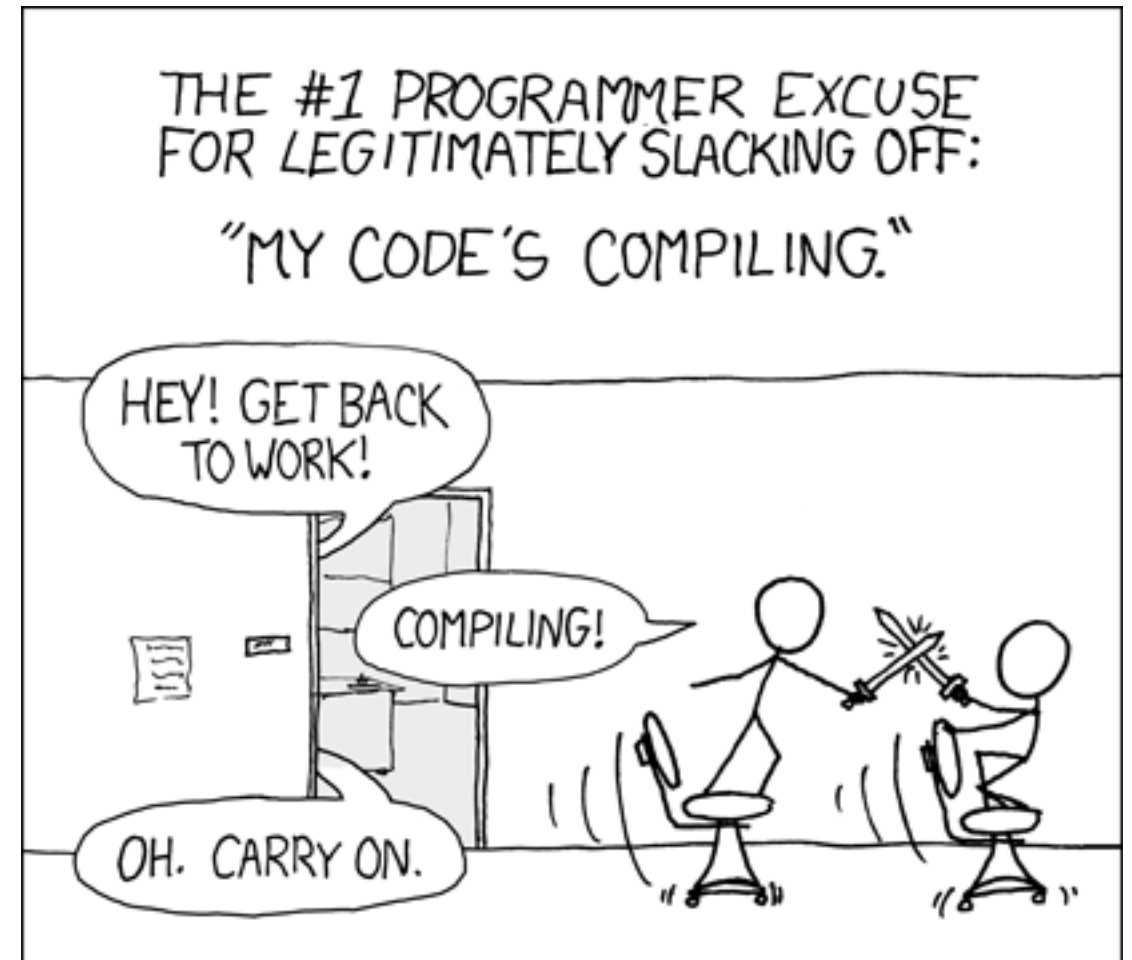
Why we are here?
Why learn Python?

- General Purpose; Multifunctional Swiss Knife
- Easy to learn
- Interactive
- At times, It works like magic!

Still not convinced??

stackoverflow

Overview

Developer Profile

Technology

  I. Most Popular Technologies

  II. Most Loved, Dreaded, and Wanted

  III. Technologies and Occupations

  IV. Top Paying Technologies

  V. Correlated Technologies

Work

Community

Methodology

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Top Paying Technologies
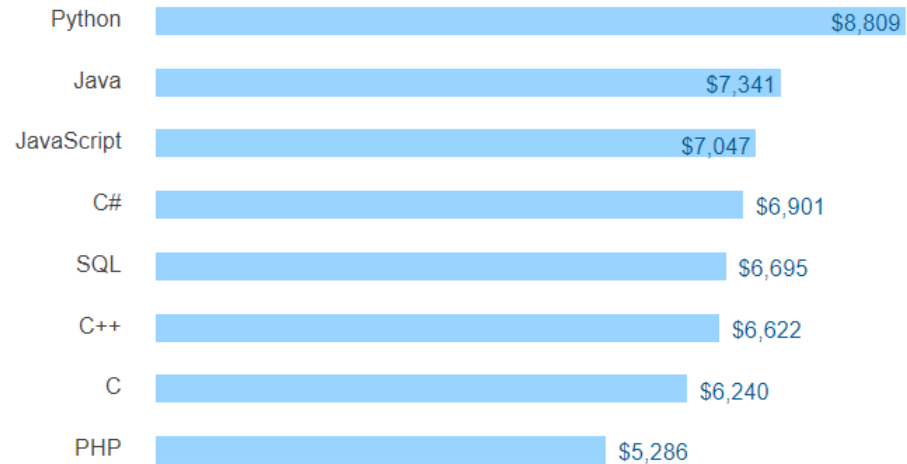
Top Paying Technologies by Region

Worldwide   US   UK   Germany   India   France

Technology	Pay
Python	$8,809
Java	$7,341
JavaScript	$7,047
C#	$6,901
SQL	$6,695
C++	$6,622
C	$6,240
PHP	$5,286

Installing Python

2/1/2018 Add a footer

Hello World in Python

C++ "Hello World"

```
#include <iostream.h>
main()
{
cout << "Hello World! ";
}
return 0
```

Java "Hello World"

```
class HelloWorldApp
    {
        public static void main(String[] args)
            {
                System.out.println("Hello World!");
            }
        }
```

Python

```
print "Hello world"
```

Identifiers

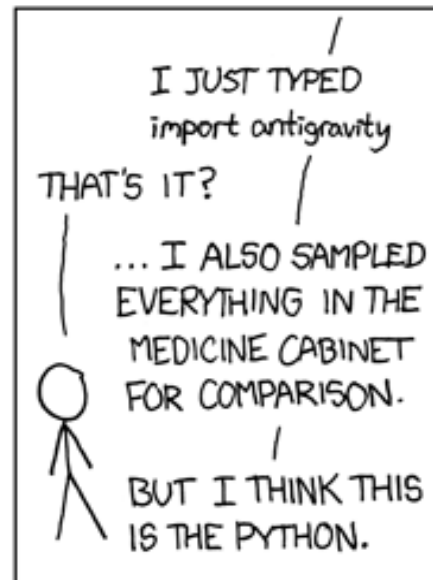An identifier is a name used to identify a variable, function, class, module or other object.

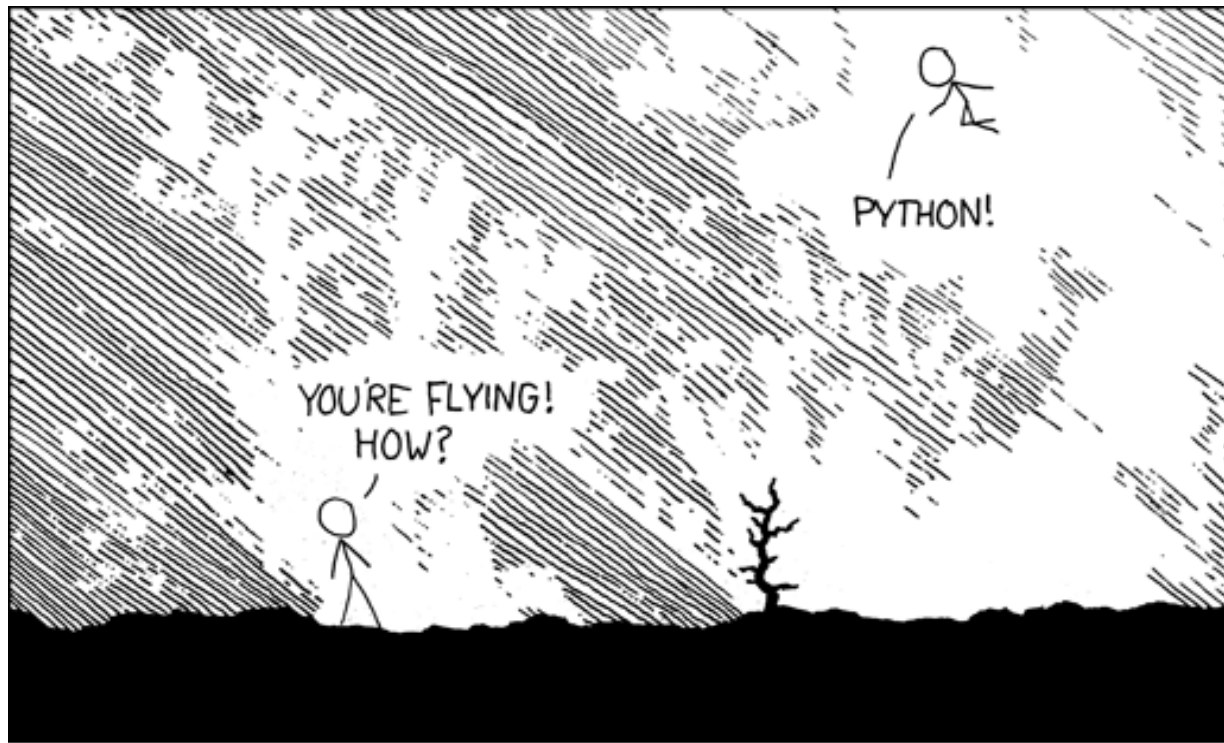In Python an identifier starts with a letter A-Z or a-z or an underscore (_) followed by zero or more letters, underscores and digits (0 to 9).

Python does not allow punctuation characters such as @, $, and % within identifiers.

Python is a case sensitive programming language. Thus, **Python** and **python** are two different identifiers in Python.

Reserved Keywords

and	exec	not
assert	finally	or
break	for	pass
class	from	print
continue	global	raise
def	if	return
del	import	try
elif	in	while
else	is	with
except	lambda	yield

Branch Statements

Branch Statements

C / C++ / JAVA

```java
if (a > b)
    System.out.print('A is greater');


if (fileExists)
    System.out.print('File exists');
else
    System.out.print('no such file');



if (fileExists)
{
    System.out.print('file exists');
    System.out.print(file opened');
}
else if (createfile)
    System.out.print('create file');
else

    System.out.print('File operation failed');
```

Python

```python
if a > b:
    print('A is greater')


if fileExists:
    print('File exists')
else:
    print('no such file')


if fileExists:
    print('file exists')
    print ('opened file')
elif createfile:
    print('create file')
else:
    print('File operation failed')
```
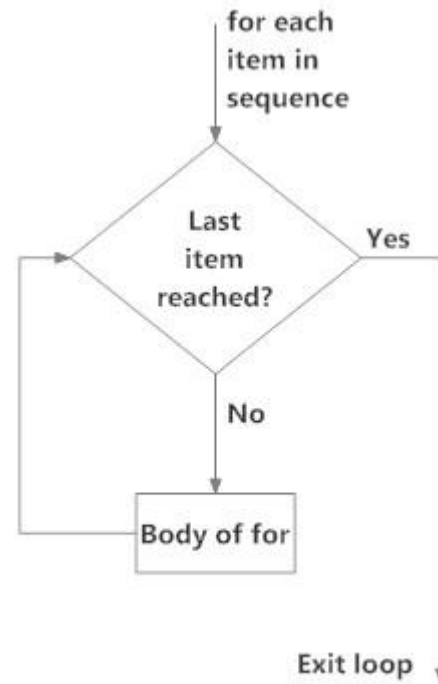
Loops

for each
item in
sequence

Last
item
reached?

Yes

No

Body of for

Exit loop

Fig: operation of for loop

for loop

C / C++ /
JAVA

```java
for (int i=0; i<100; i++)
{
    System.out.print(i);
    System.out.print(' ');
}
System.out.println();
```

Python

```python
for item in some_iterable_object:
    do_something()
    do_something_else()
```

while loop

C / C++ /
JAVA

```
while(condition)
{
    statement(s);
}
```

Python

```
while True:
    n = raw_input("Please enter 'hello':")
    if n.strip() == 'hello':
        break
```

do... while loop

C / C++ /
JAVA

```
do
{
   statement(s);
}
while( condition );
```

Python

do… while loops are ugly. Instead …

```python
while True:
    n = raw_input("Please enter 'hello':")
    if n.strip() == 'hello':
        break
```