



Let's Start



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Let's Start Coding

```
def add5(x):  
    return x+5  
  
def dotwrite(ast):  
    nodename = getNodeName()  
    label=symbol.sym_name.get(int(ast[0]),ast[0])  
    print '    %s [label="%s' % (nodename, label),  
    if isinstance(ast[1], str):  
        if ast[1].strip():  
            print '= %s";' % ast[1]  
        else:  
            print '"]'  
    else:  
        print '"]';'  
        children = []  
        for n, child in enumerate(ast[1:]):  
            children.append(dotwrite(child))  
    print '    %s -> {' % nodename,  
    for name in children:  
        print '%s' % name,
```

What is Python?

1. Python is an interpreted
2. high-level
3. general-purpose programming language.
4. Created by Guido van Rossum and first released in 1991,
5. It provides constructs that enable clear programming on both small and large scales.



Python is a cross-platform programming language, meaning, it runs on multiple platforms like Windows, Mac OS X, Linux, Unix and has even been ported to the Java and .NET virtual machines. It is free and open source.

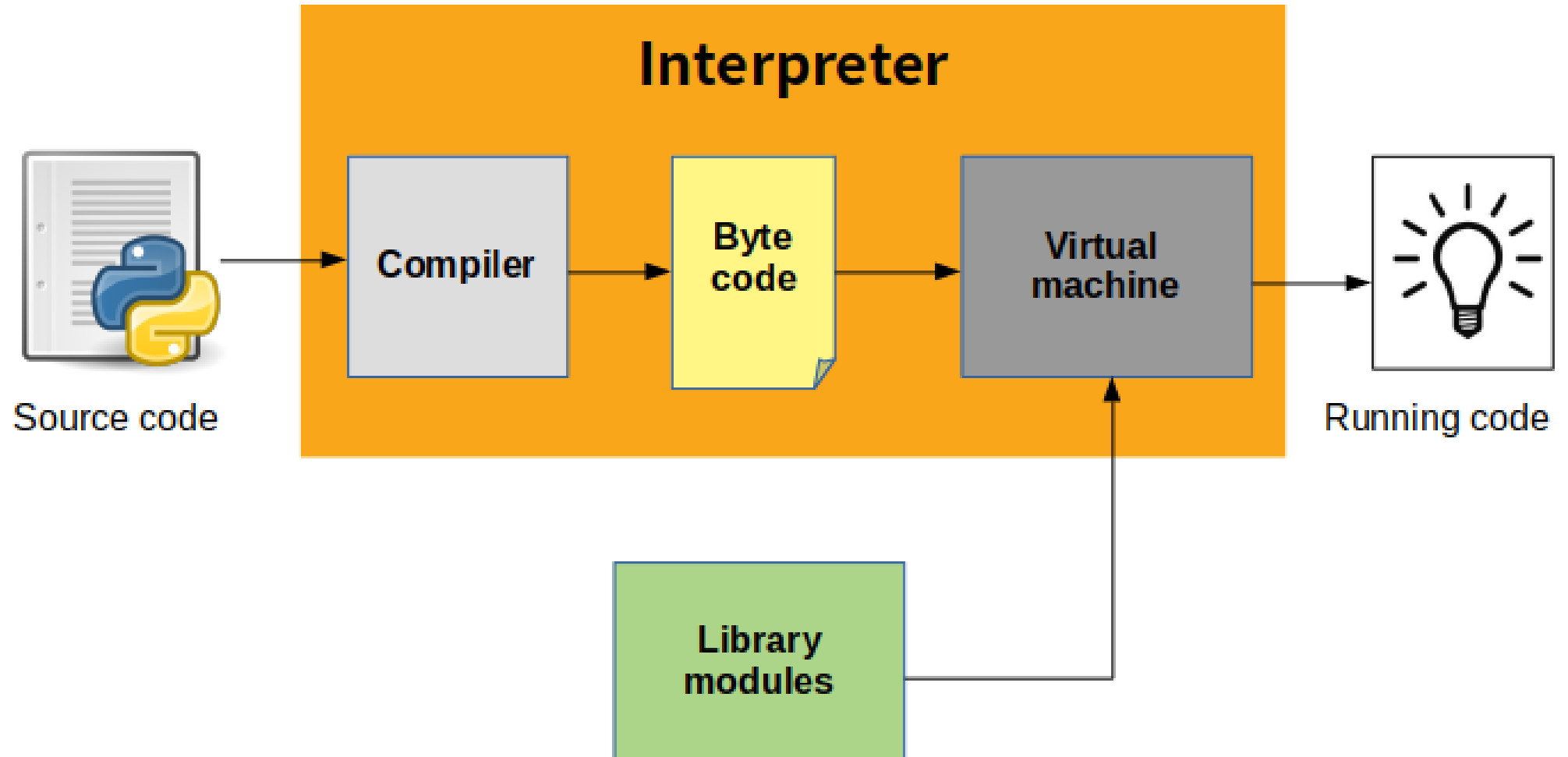
Starting the Interpreter

Interestingly, it can be implemented in any programming language!

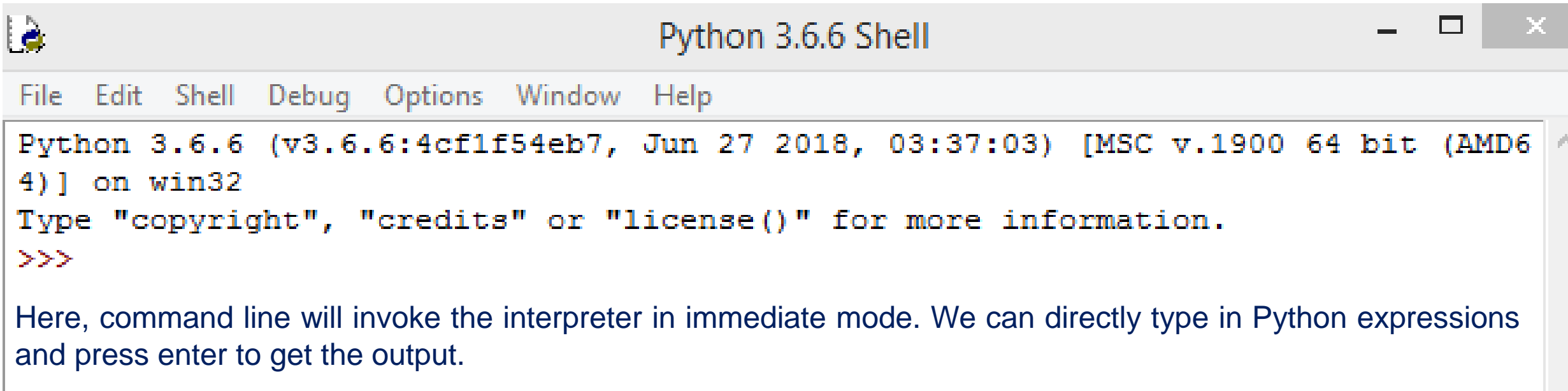
- **CPython** is the default interpreter for Python which is written in **C programming language**.
- **Jython** is another popular implementation of python interpreter written using **Java programming language**.



Python's view of interpreter



Immediate mode

A screenshot of a Windows application window titled "Python 3.6.6 Shell". The window has a standard menu bar with "File", "Edit", "Shell", "Debug", "Options", "Window", and "Help". The main text area displays the following text: "Python 3.6.6 (v3.6.6:4cf1f54eb7, Jun 27 2018, 03:37:03) [MSC v.1900 64 bit (AMD64)] on win32", "Type 'copyright', 'credits' or 'license()' for more information.", and a red prompt ">>>". Below the text area, there is a blue text explanation: "Here, command line will invoke the interpreter in immediate mode. We can directly type in Python expressions and press enter to get the output."

```
Python 3.6.6 (v3.6.6:4cf1f54eb7, Jun 27 2018, 03:37:03) [MSC v.1900 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
```

Here, command line will invoke the interpreter in immediate mode. We can directly type in Python expressions and press enter to get the output.

- This prompt can be used as a calculator.
- To exit this mode type `exit()` or `quit()` and press enter.

Script mode

This mode is used to execute Python program written in a file. Such a file is called a script. Scripts can be saved to disk for future use.

Python scripts have the extension **.py**

For example: myFirstpro_World.py

Integrated Development Environment (IDE)

pycharm

PyCharm is an integrated development environment used in computer programming, specifically for the Python language.

[Download PyCharm](#)



Say Hello.. Example

Type the following code in any text editor or an IDE and save it as `helloWorld.py`

```
print("Hello world!")
```