Python (a Computer Language)

- As we know that in order to communicate with a computer system, we need a language. This language may be C, C++, Java, Python or any other computer language. Here we will discuss PYTHON.
- Python was developed by Guido Van Rossum in 1991 when he was working with National Research Institute of Mathematics and Science in Netherland.
- Python was named from a comedy series “Monty Python’s Flying Circus” telecasted on BBC.
- Python can be used as OOL and POL.

Python (a Computer Language)

- Actually, Python is inspired by two languages -

    1. ABC language which was an optional language of BASIC language.
    2. Modula-3

- Python is very easy learning language as most of its syntax seems to be like in English.
- It is possible to get desired output in minimum instructions.
- It's an Interpreted language.
- It's a complete language in itself and it is very easy to download and install.
- It is a platform independent and portable language.
- It is Free Open Source.

Python (a Computer Language)

- It is possible to develop various Apps with Python like–
  - GUI Apps
  - Web Apps
  - Games
  - DBMS Apps
  - Scripting etc.

Python (a Computer Language) Limitations-

There are few limitations in Python which can be neglected because of its vast usage.

- It is not a Fast Language.
- Libraries are very less.
- It is week in Type binding.
- It is not easy to convert in some other language.

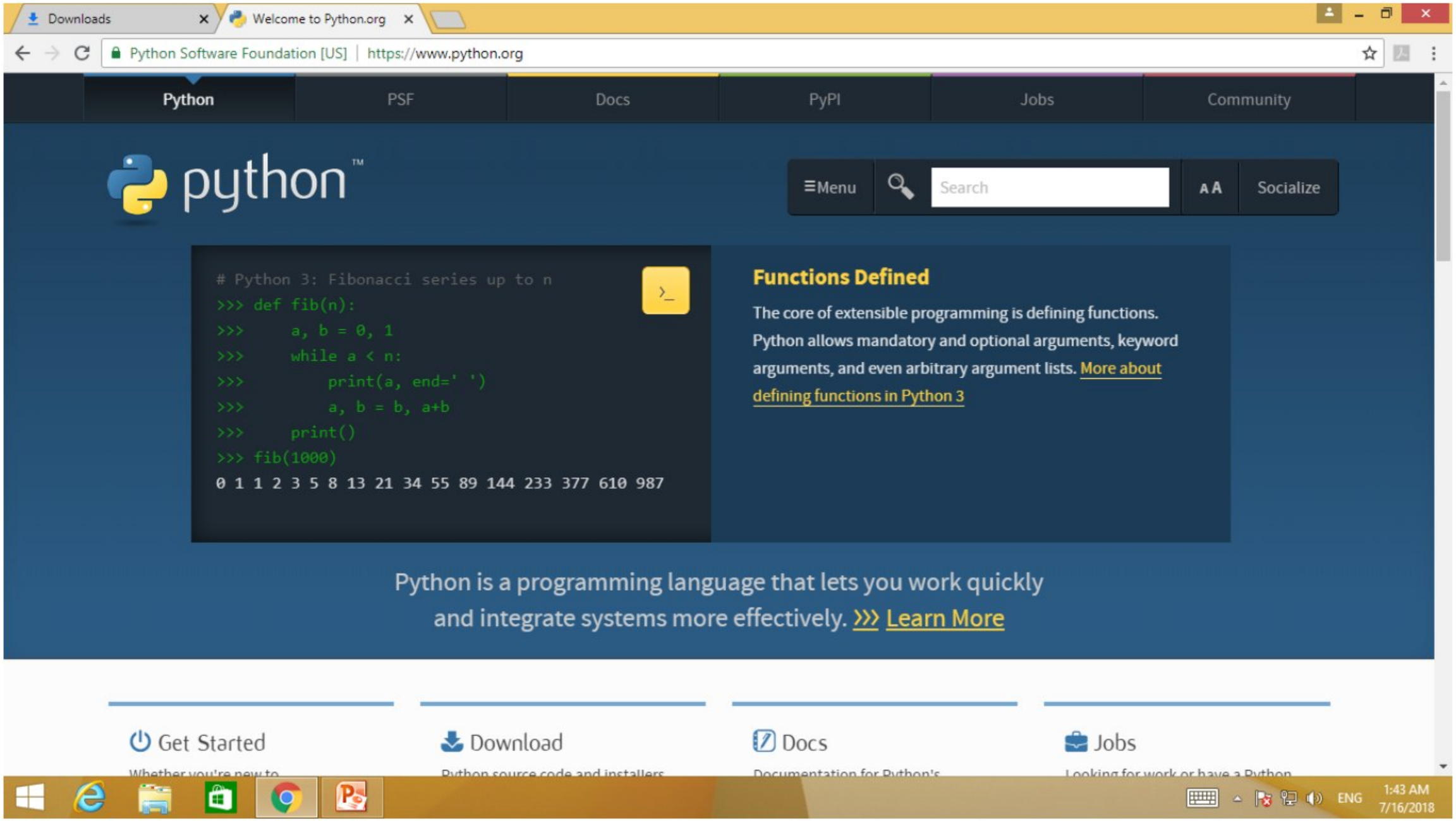
Python (a Computer Language)

HOW TO INSTALL?

- Python can be downloaded from www.python.org.
- It is available in two versions-
  - Python 2.x
  - Python 3.x
- We will download 3.6.5 here.
- Open www.python.org on any browser.

Python (a Computer Language)

HOW TO INSTALL?



- SCROLL DOWN.

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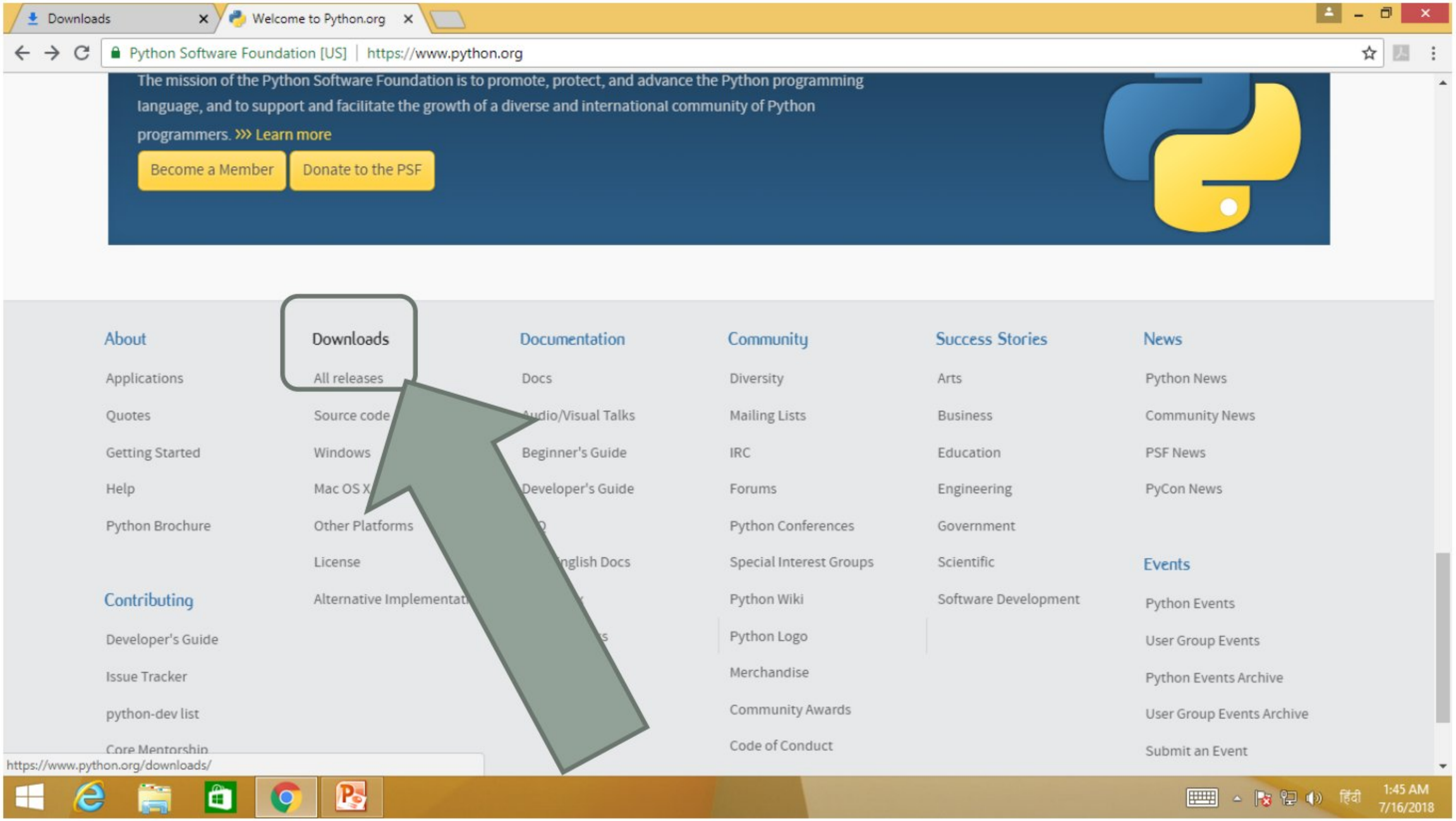
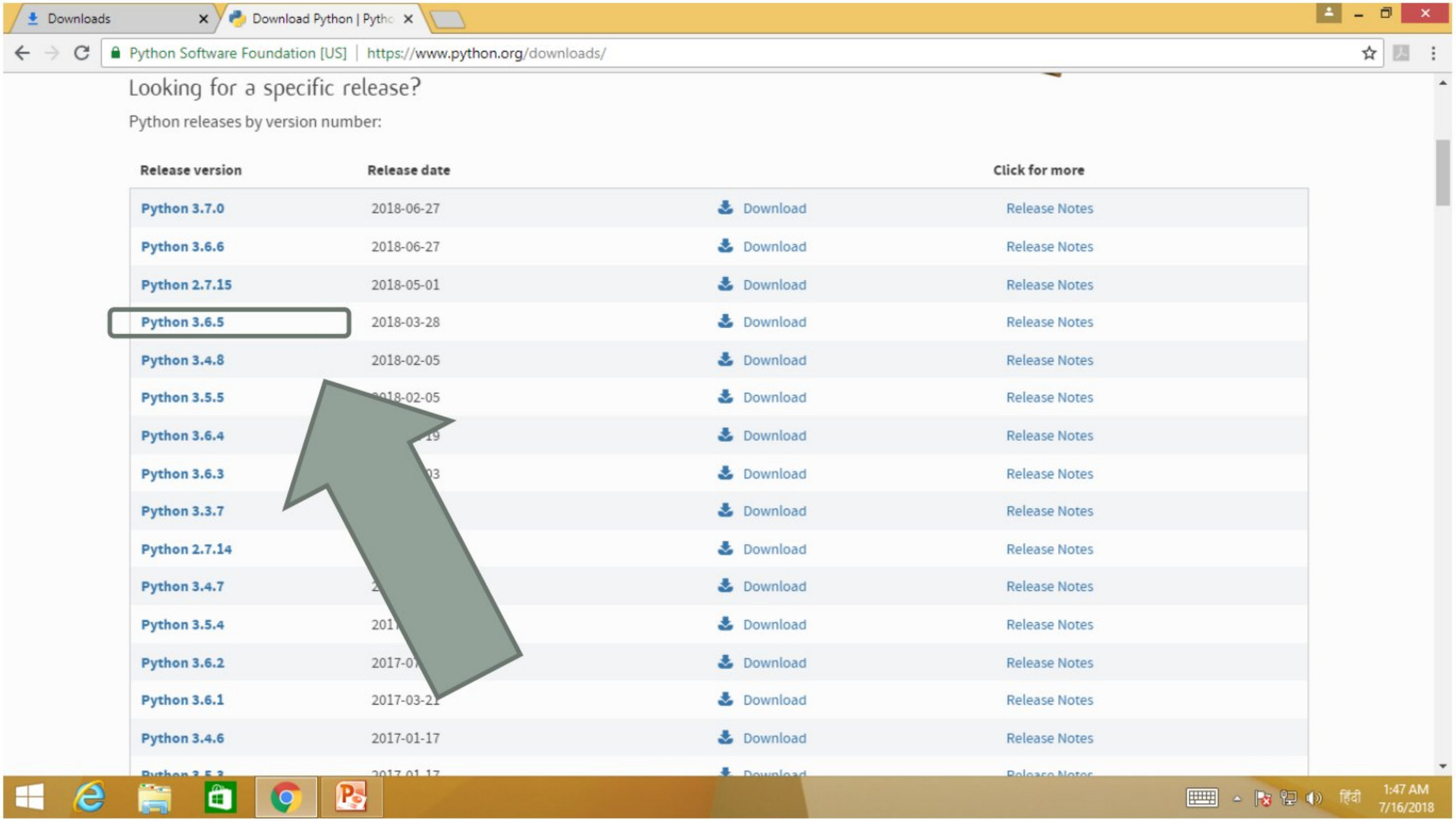
HOW TO INSTALL?



Click on Downloads.

Python (a Computer Language)

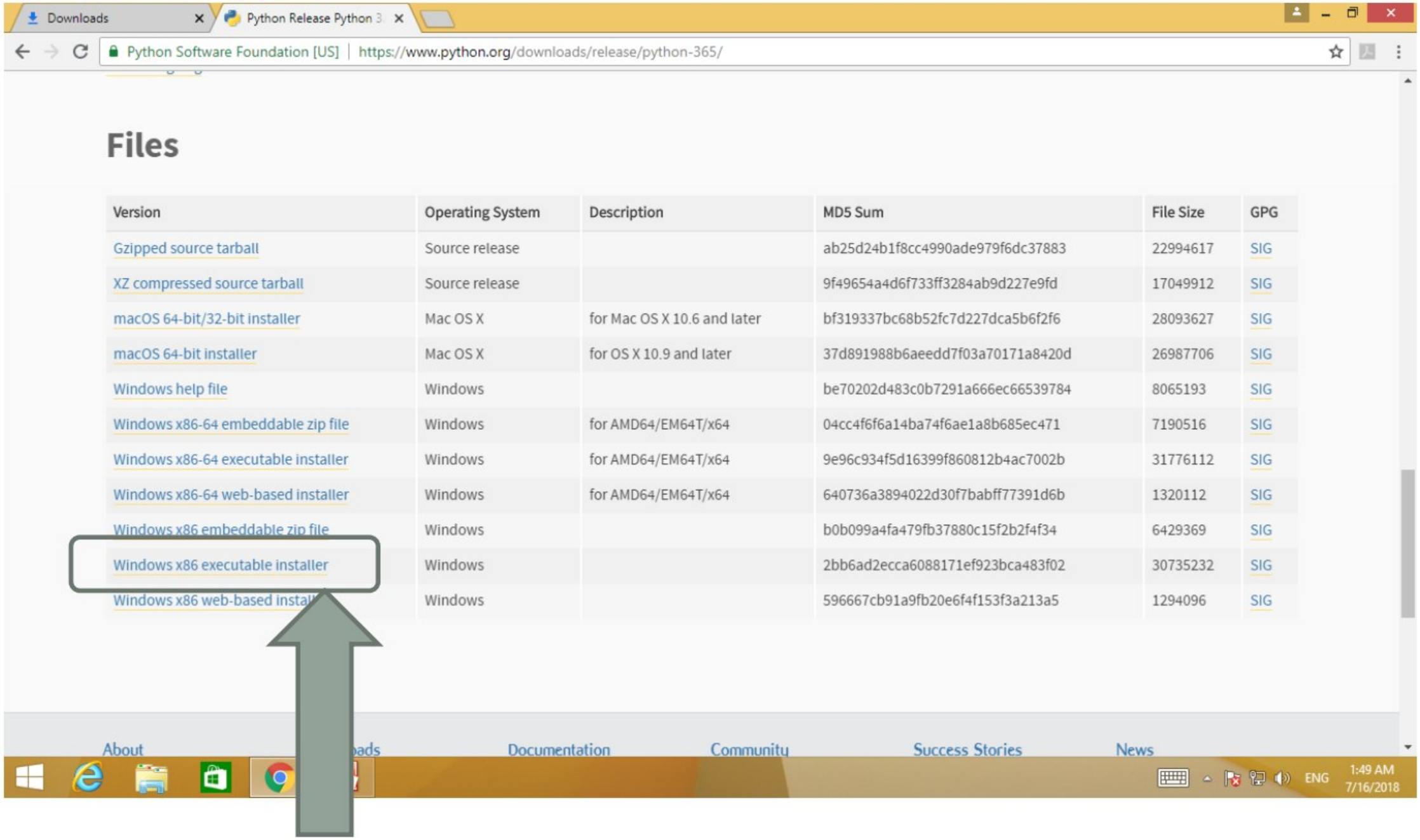
HOW TO INSTALL?



Click on Python3.6.5.

Python (a Computer Language)

HOW TO INSTALL?



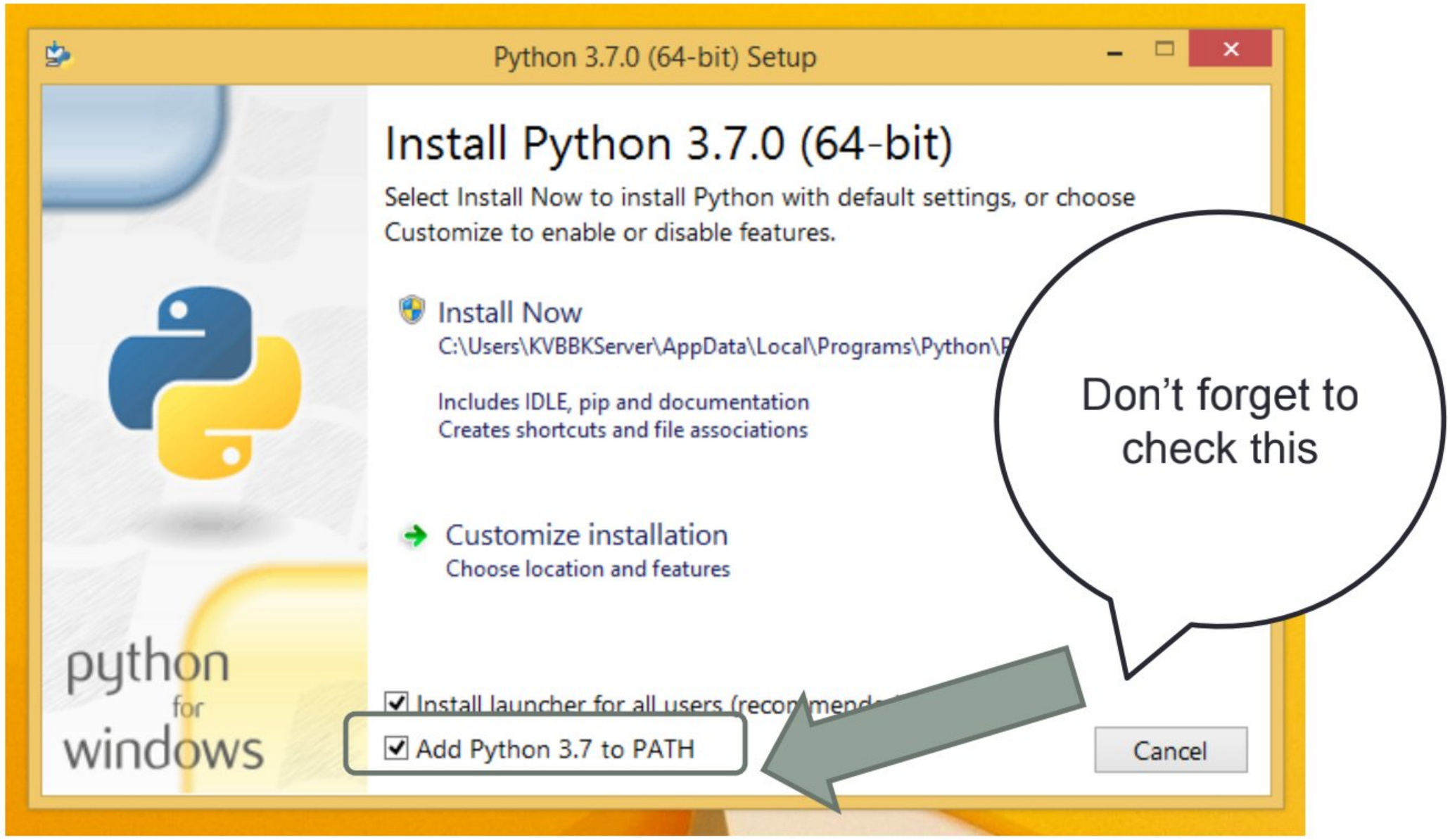
Version	Operating System	Description	MD5 Sum	File Size	GPG
Gzipped source tarball	Source release		ab25d24b1f8cc4990ade979f6dc37883	22994617	SIG
XZ compressed source tarball	Source release		9f49654a4d6f733ff3284ab9d227e9fd	17049912	SIG
macOS 64-bit/32-bit installer	Mac OS X	for Mac OS X 10.6 and later	bf319337bc68b52fc7d227dca5b6f2f6	28093627	SIG
macOS 64-bit installer	Mac OS X	for OS X 10.9 and later	37d891988b6aeedd7f03a70171a8420d	26987706	SIG
Windows help file	Windows		be70202d483c0b7291a666ec66539784	8065193	SIG
Windows x86-64 embeddable zip file	Windows	for AMD64/EM64T/x64	04cc4f6f6a14ba74f6ae1a8b685ec471	7190516	SIG
Windows x86-64 executable installer	Windows	for AMD64/EM64T/x64	9e96c934f5d16399f860812b4ac7002b	31776112	SIG
Windows x86-64 web-based installer	Windows	for AMD64/EM64T/x64	640736a3894022d30f7babff77391d6b	1320112	SIG
Windows x86 embeddable zip file	Windows		b0b099a4fa479fb37880c15f2b2f4f34	6429369	SIG
Windows x86 executable installer	Windows		2bb6ad2ecca6088171ef923bca483f02	30735232	SIG
Windows x86 web-based install	Windows		596667cb91a9fb20e6f4f153f3a213a5	1294096	SIG

Download installer as per your Operating System (32 bit or 64 bit).

Python (a Computer Language)

HOW TO INSTALL?

- Now run the downloaded setup, it will look like-



- Click on Install now.

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HOW TO INSTALL?

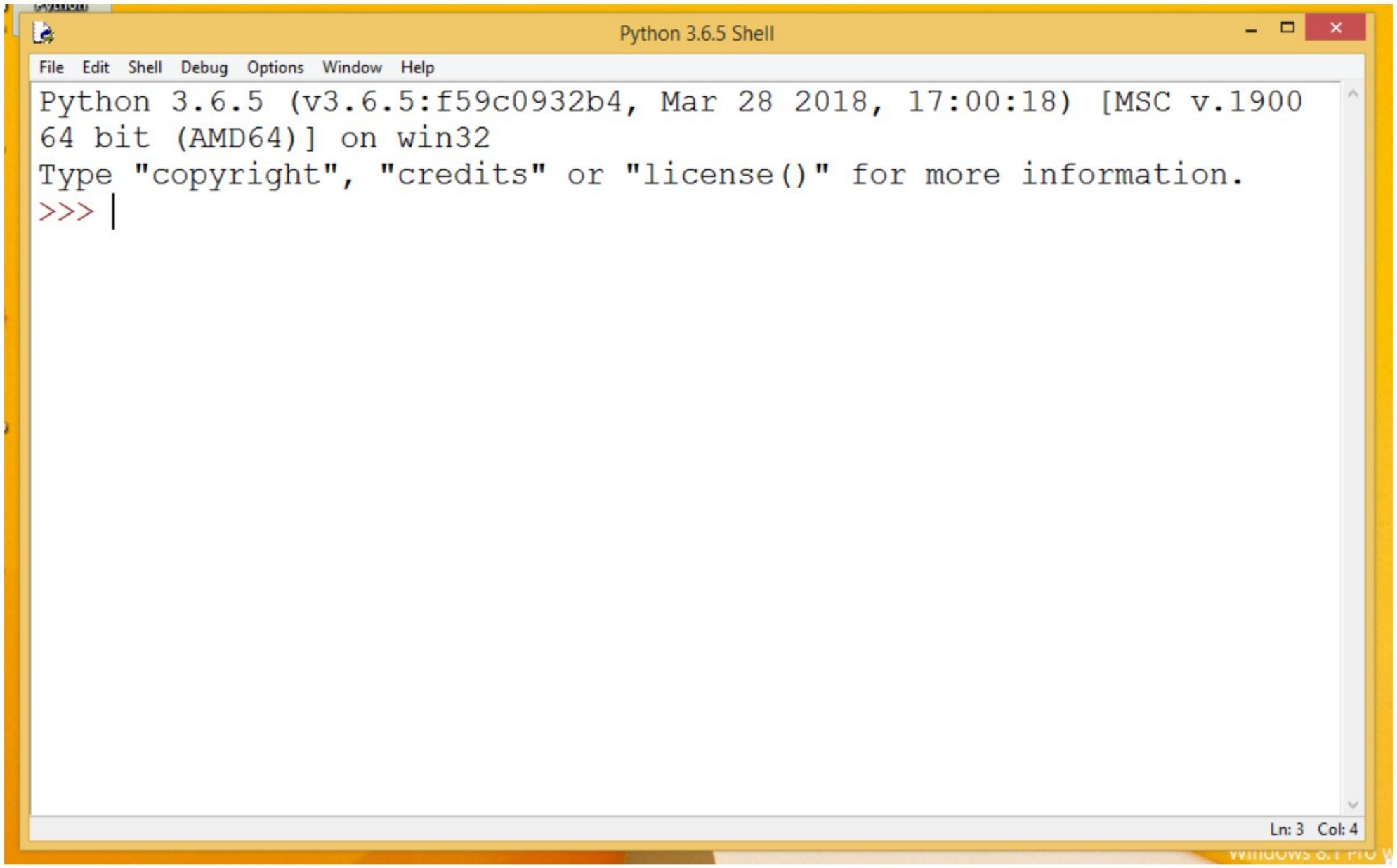
- You can install python in this manner.
- After installation, we will open Python IDLE 3.6.5.

IDLE Python 3.6.5

Python (a Computer Language)

HOW TO INSTALL?

- On opening Python IDLE 3.6.5, a window will be opened which will look like-



Python (a Computer Language)

HOW TO WORK?

- We can work in Python in two ways-

  Interactive Mode

  Script Mode

- Both have their own style of working.
- Interactive mode works like a Command Interpreter as Shell Prompt works in DOS Prompt or Linux..
- (>>>) we can execute any instruction of Python with this.
- We can run a complete program by writing in Script mode.

Python (a Computer Language)

Interactive mode

Python 3.6.5 Shell

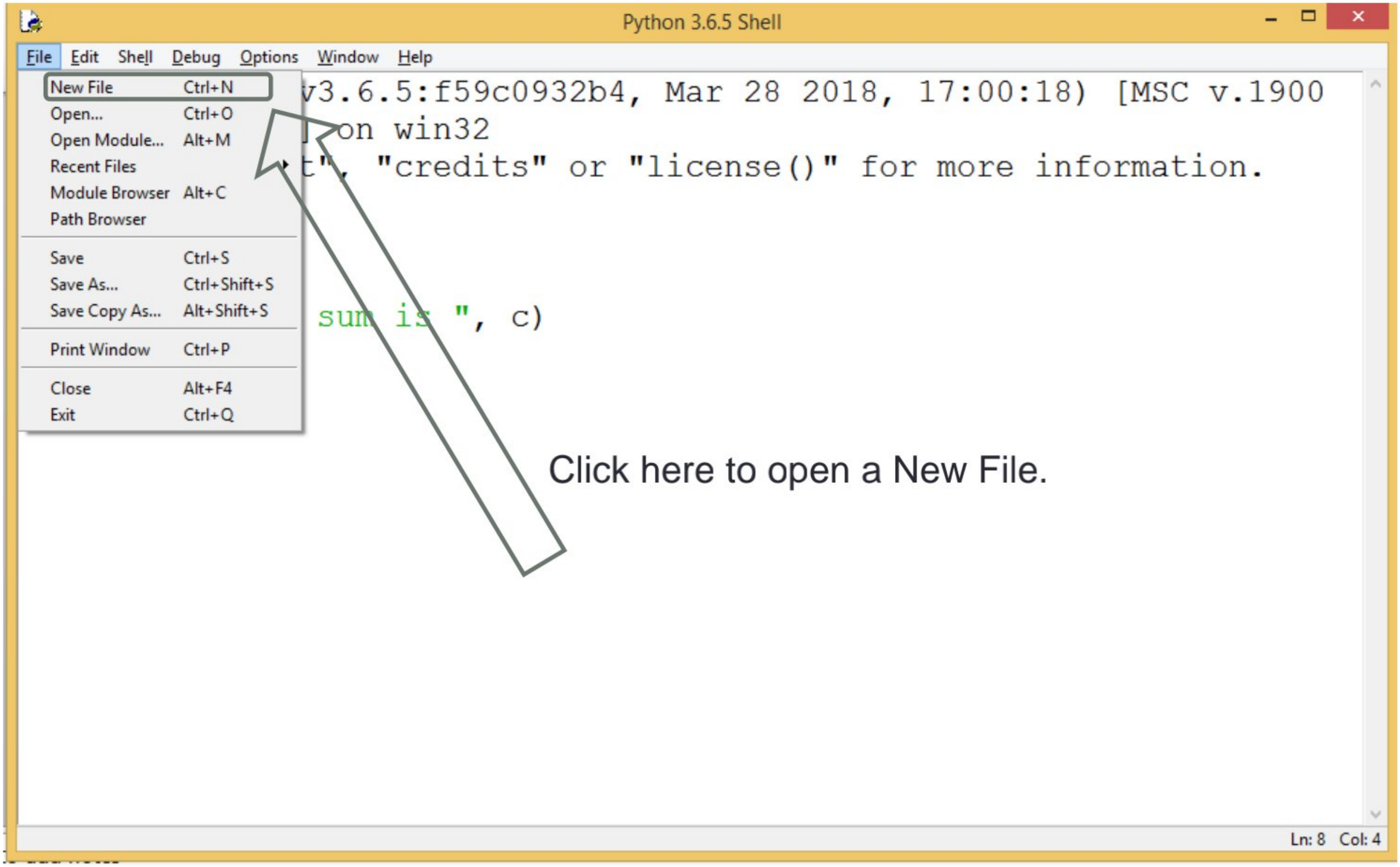
File Edit Shell Debug Options Window Help

```
Python 3.6.5 (v3.6.5:f59c0932b4, Mar 28 2018, 17:00:18) [MSC v.1900
64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> a=10
>>> b=20
>>> c=a+b
>>> print("the sum is ", c)
the sum is  30
>>> |
```

Ln: 8 Col: 4

Python (a Computer Language)

Script mode



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Script mode

MyFirstProgram.py - C:/Users/KVBBKServer/AppData/Local/Programs/Python/Python36/MyFirstProgram.py (3.6.5)

File Edit Format Run Options Window Help

```
a=10
b=34
c=a+b
print("The sum is ", c)
```

- This is a script window. We can write a complete program here.
- Afterwards, we save the file as we have saved the file with the name MyFirstProgram.py here.
- Then in run menu, click on run module or use F5 Key.

Ln: 4 Col: 23

Python (a Computer Language)

Script mode

File Edit Shell Debug Options Window Help

```
Python 3.6.5 (v3.6.5:f59c0932b4, Mar 28 2018, 17:00:18) [MSC v.1900 64 bit (AMD6
4)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
 RESTART: C:\Users\KVBBKServer\AppData\Local\Programs\Python\Python36\MyFirstPro
gram.py
The sum is  44
>>>
```

- As we click on run module or use F5, we switch to interactive mode where we get output of the program.