

- **OpenCV is an image processing library created by Intel and later supported by Willow Garage and now maintained by Itseez.**
- **Available on Mac, Windows, Linux.**
- **Works in C, C++, and Python.**
- **Open Source and free.**
- **Easy to use and install.**



python



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<https://www.python.org/> ▼

The official home of the Python Programming Language.

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```
# Python 3: Fibonacci series up to n
>>> def fib(n):
>>>     a, b = 0, 1
>>>     while a < n:
>>>         print(a, end=' ')
>>>         a, b = b, a+b
>>>     print()
>>> fib(1000)
0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987
```

>\_

Python is a programming language  
and integrate systems modules

## Get Started

Whether you're new to programming or an experienced developer, it's easy to learn and use Python.

[Start with our Beginner's Guide](#)

## Download

Python source code and installers are available for download for all versions!

Latest: Python 3.7.4

# Python 3.7.4

**Release Date:** July 8, 2019

Python 3.7.4 is the fourth and most recent maintenance release of Python 3.7. The Python 3.7 series is the newest and optimizations.

Among the major new features in Python 3.7 are:

- [PEP 539](#), new C API for thread-local storage

go down page

## Files

Version	Operating System	Description	MD5 Sum	File Size	GPG
<a href="#">Gzipped source tarball</a>	Source release		68111671e5b2db4aef7b9ab01bf0f9be	23017663	<a href="#">SIG</a>
<a href="#">XZ compressed source tarball</a>	Source release		d33e4aae66097051c2eca45ee3604803	17131432	<a href="#">SIG</a>
<a href="#">macOS 64-bit/32-bit installer</a>	Mac OS X	for Mac OS X 10.6 and later	6428b4fa7583daff1a442cba8cee08e6	34898416	<a href="#">SIG</a>
<a href="#">macOS 64-bit installer</a>	Mac OS X	for OS X 10.9 and later	5dd605c38217a45773bf5e4a936b241f	28082845	<a href="#">SIG</a>
<a href="#">Windows help file</a>	Windows		d63999573a2c06b2ac56cade6b4f7cd2	8131761	<a href="#">SIG</a>
<a href="#">Windows x86-64 embeddable zip file</a>	Windows	for AMD64/EM64T/x64	9b00c8cf6d9ec0b9abe83184a40729a2	7504391	<a href="#">SIG</a>
<a href="#">Windows x86-64 executable installer</a>	Windows	for AMD64/EM64T/x64	a702b4b0ad76debdb3043a583e563400	26680368	<a href="#">SIG</a>
<a href="#">Windows x86-64 web-based installer</a>	Windows	for AMD64/EM64T/x64	28cb1c608bbd73ae8e53a3bd351b4bd2	1362904	<a href="#">SIG</a>
<a href="#">Windows x86 embeddable zip file</a>	Windows		9fab3b81f8841879fda94133574139d8	6741626	<a href="#">SIG</a>
<a href="#">Windows x86 executable installer</a>	Windows		33cc602942a54446a3d6451476394789	25663848	<a href="#">SIG</a>
<a href="#">Windows x86 web-based installer</a>	Windows		1b670cfa5d317df82c30983ea371d87c	1324608	<a href="#">SIG</a>

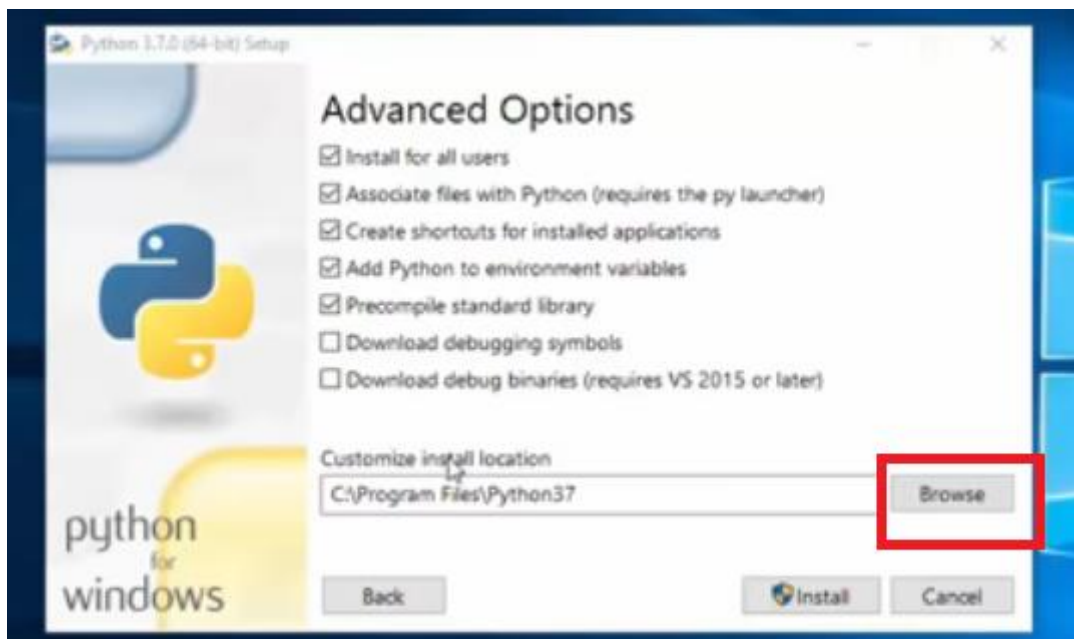
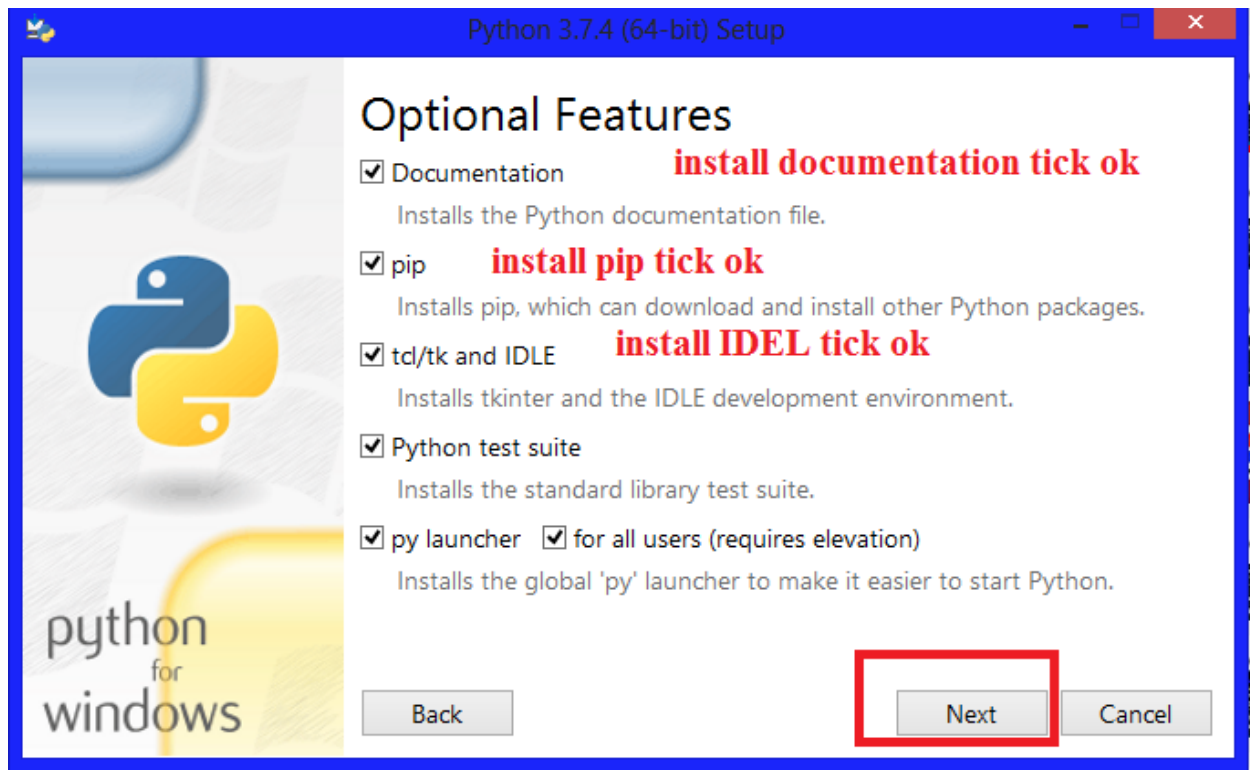
Version	Operating System	Description
<a href="#">Gzipped source tarball</a>	Source release	
<a href="#">XZ compressed source tarball</a>	Source release	
<a href="#">macOS 64-bit/32-bit installer</a>	Mac OS X	for Mac OS X 10.6
<a href="#">macOS 64-bit installer</a>	Mac OS X	for OS X 10.9 and
<a href="#">Windows help file</a>	Windows	
<a href="#">Windows x86-64 embeddable zip file</a>	Windows	for AMD64/EM64T
<a href="#">Windows x86-64 executable installer</a>	Windows	for AMD64/EM64T
<a href="#">Windows x86-64 web-based installer</a>	Windows	for AMD64/EM64T
<a href="#">Windows x86 embeddable zip file</a>	Windows	
<a href="#">Windows x86 executable installer</a>	Windows	
<a href="#">Windows x86 web-based installer</a>	Windows	

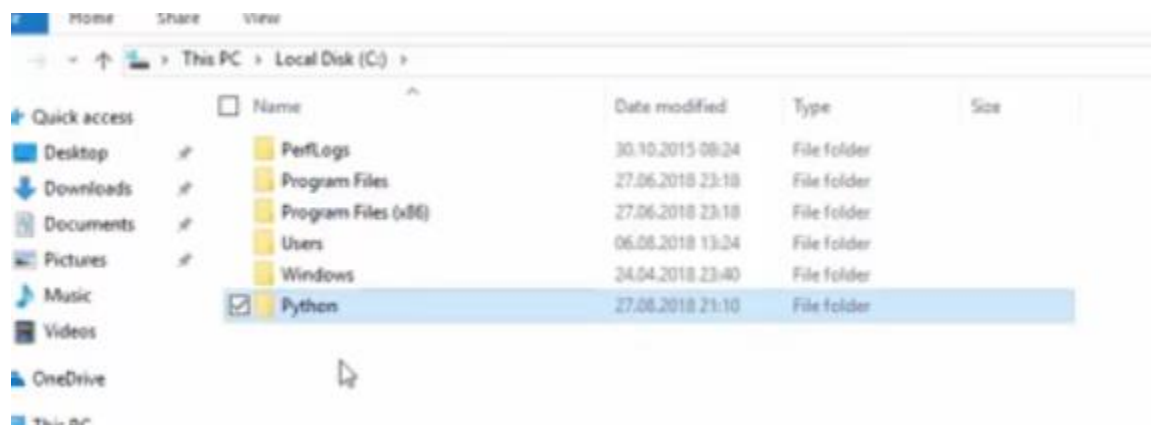
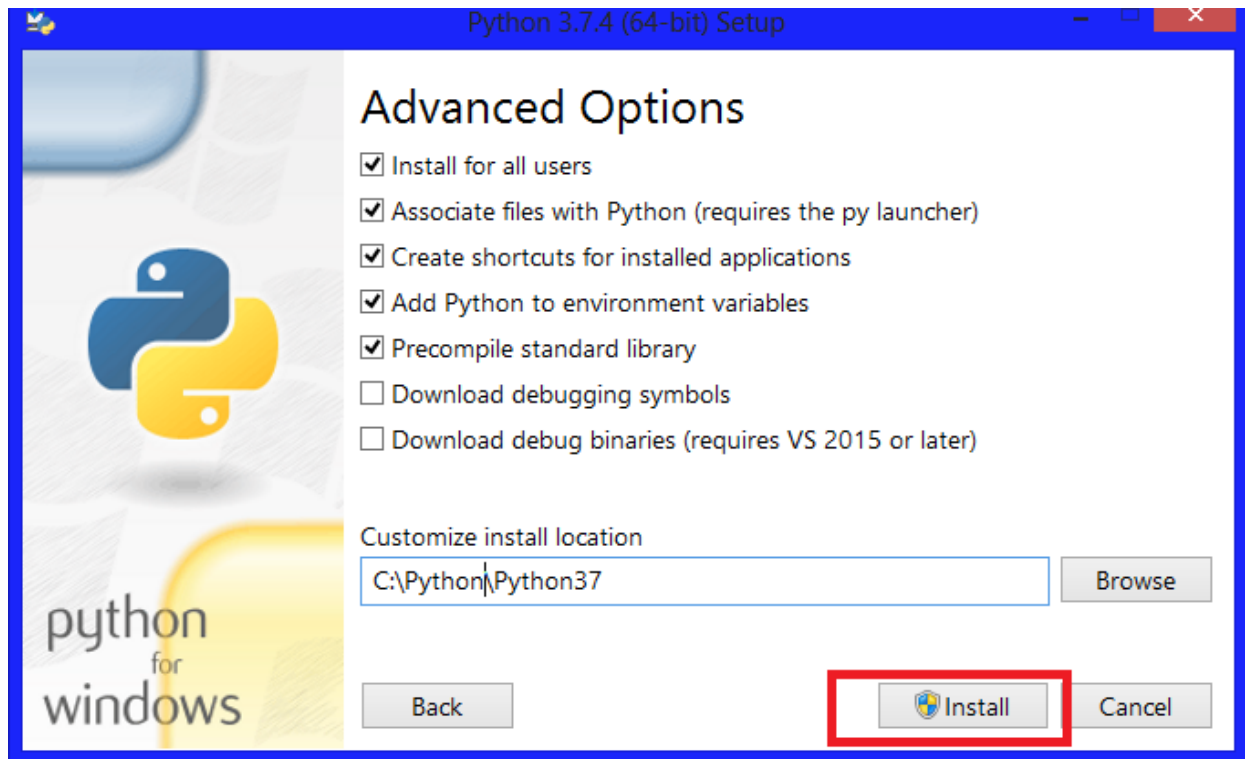


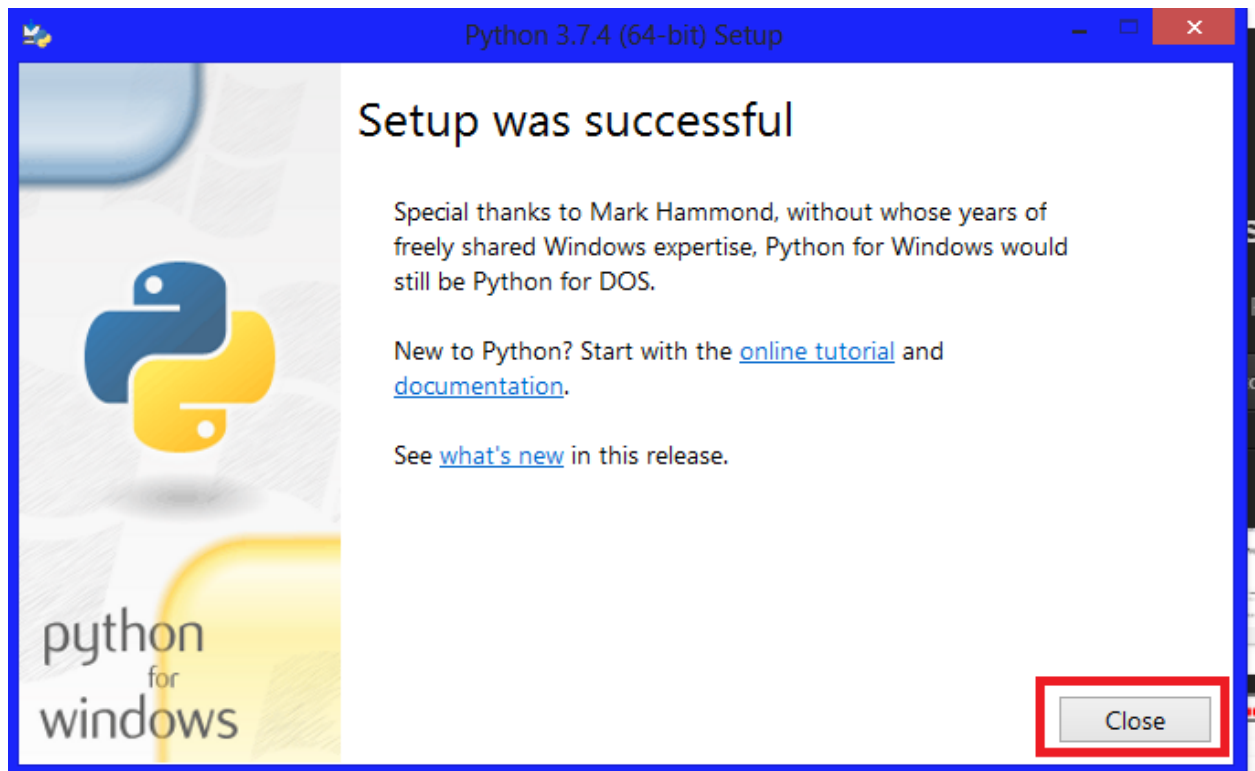
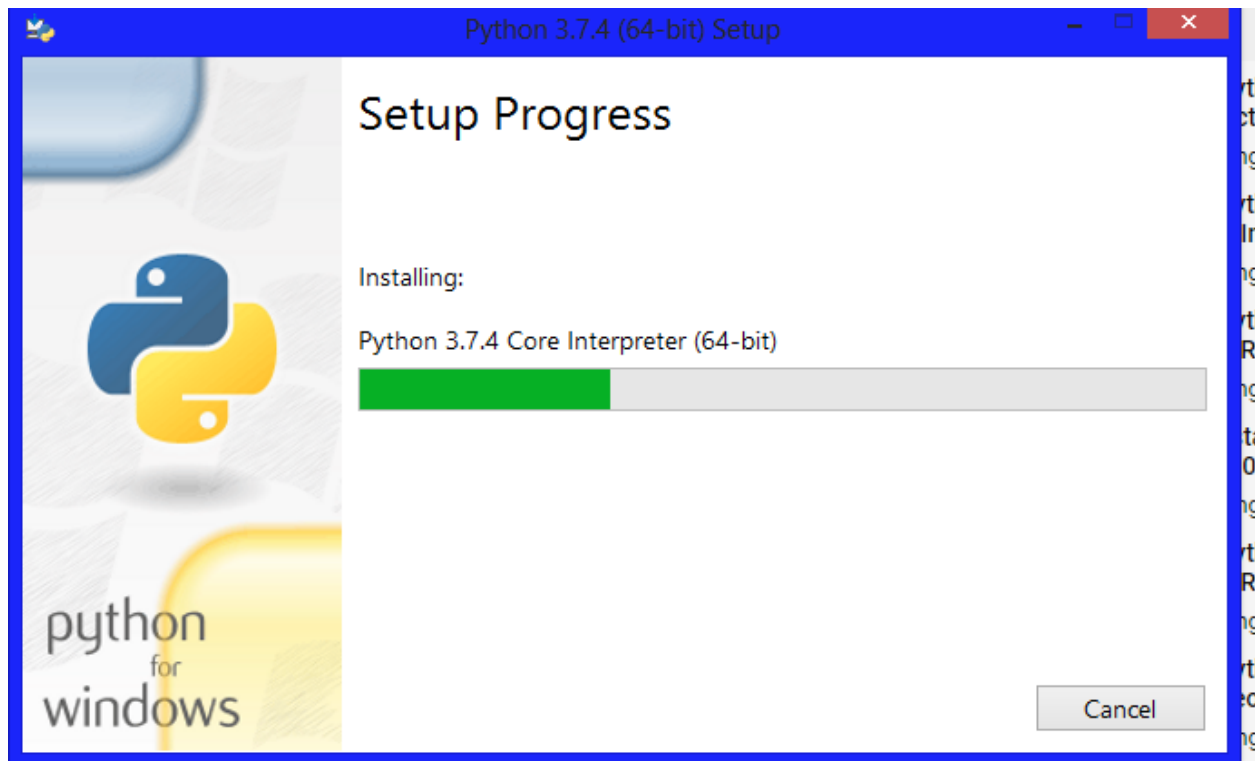
python-3.7.4-amd64.exe  
4.1/25.4 MB, 2 mins left



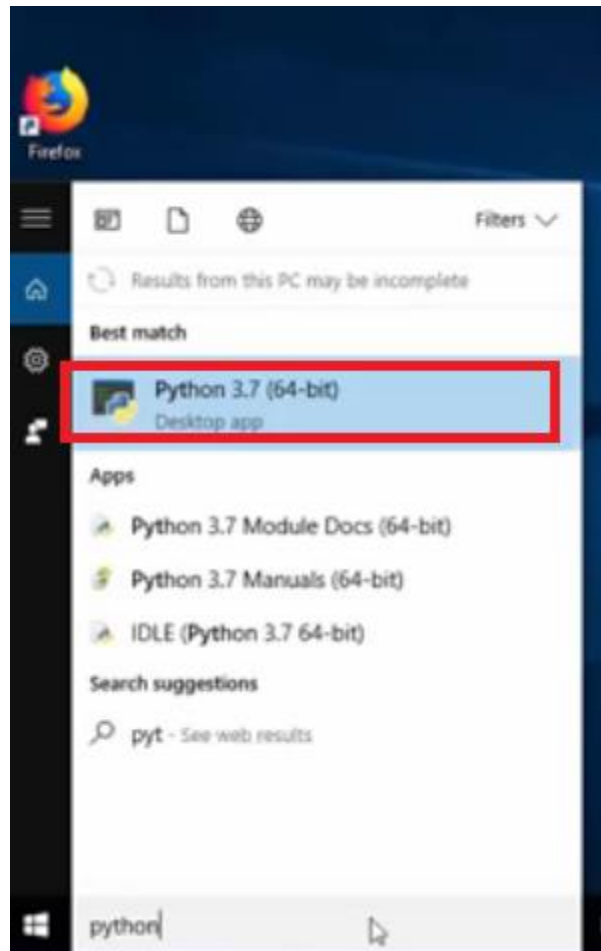




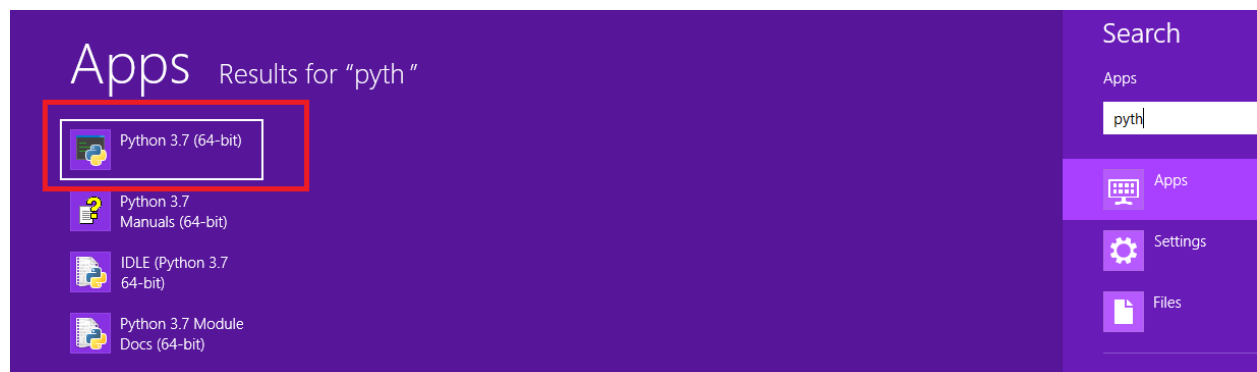


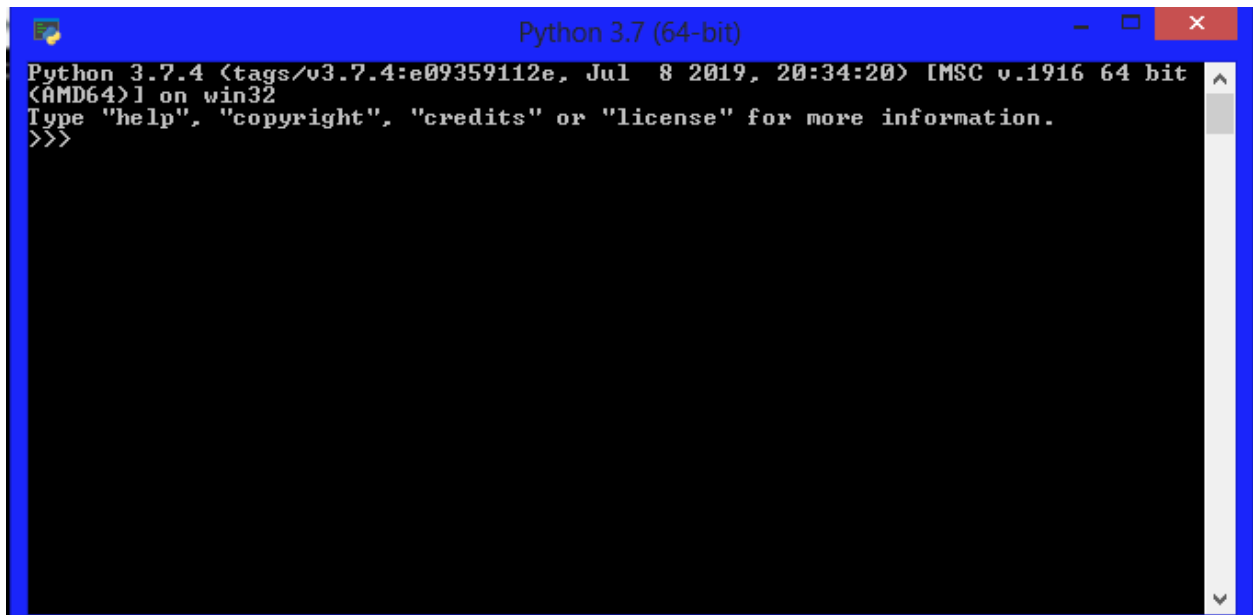




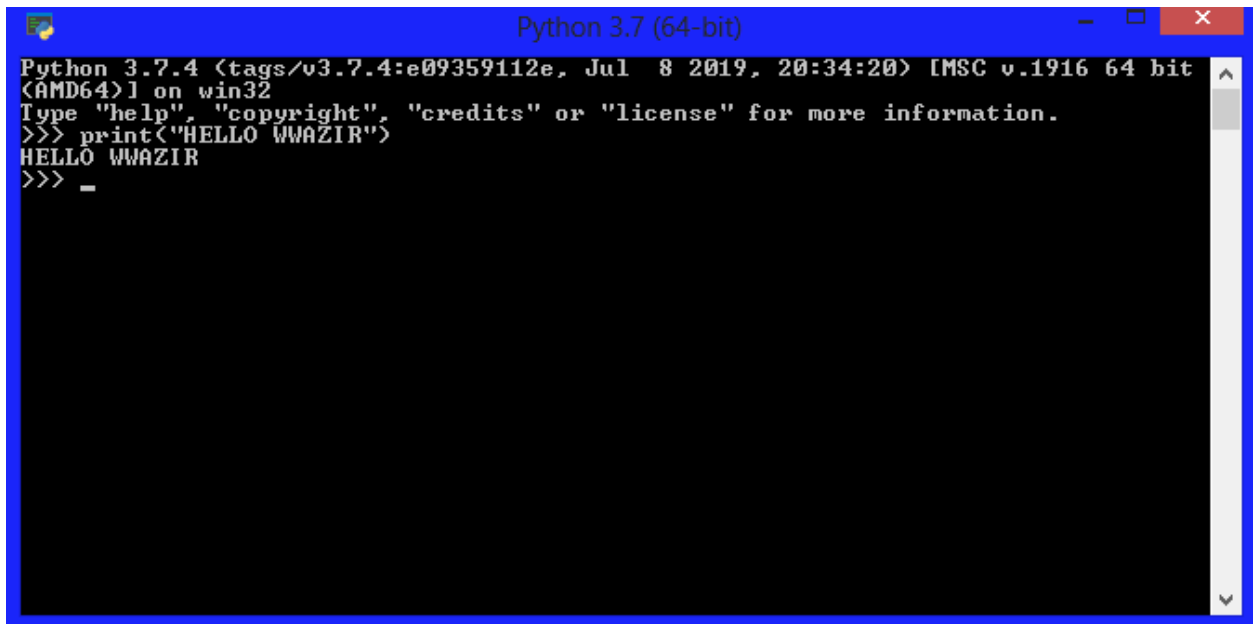


OR

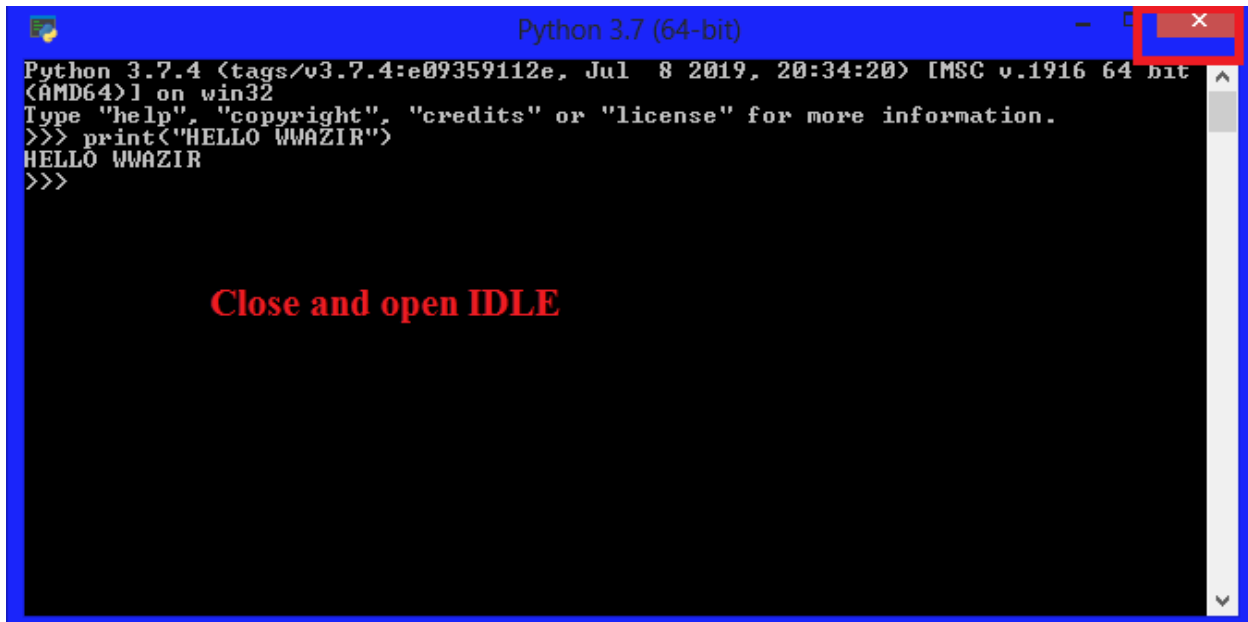


A screenshot of a Windows command prompt window titled "Python 3.7 (64-bit)". The window has a blue title bar and standard Windows window controls (minimize, maximize, close) in the top right corner. The command prompt shows the Python 3.7.4 startup text: "Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32". Below this, it says "Type 'help', 'copyright', 'credits' or 'license' for more information." and then shows the prompt ">>>" on a new line.

```
Python 3.7 (64-bit)
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

A screenshot of a Windows command prompt window titled "Python 3.7 (64-bit)". The window has a blue title bar and standard Windows window controls (minimize, maximize, close) in the top right corner. The command prompt shows the Python 3.7.4 startup text: "Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32". Below this, it says "Type 'help', 'copyright', 'credits' or 'license' for more information." and then shows the prompt ">>>". The user has entered the command "print('HELLO WWAZIR')", and the output "HELLO WWAZIR" is displayed on the next line. The prompt ">>>" is shown again on the following line.

```
Python 3.7 (64-bit)
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> print('HELLO WWAZIR')
HELLO WWAZIR
>>> _
```



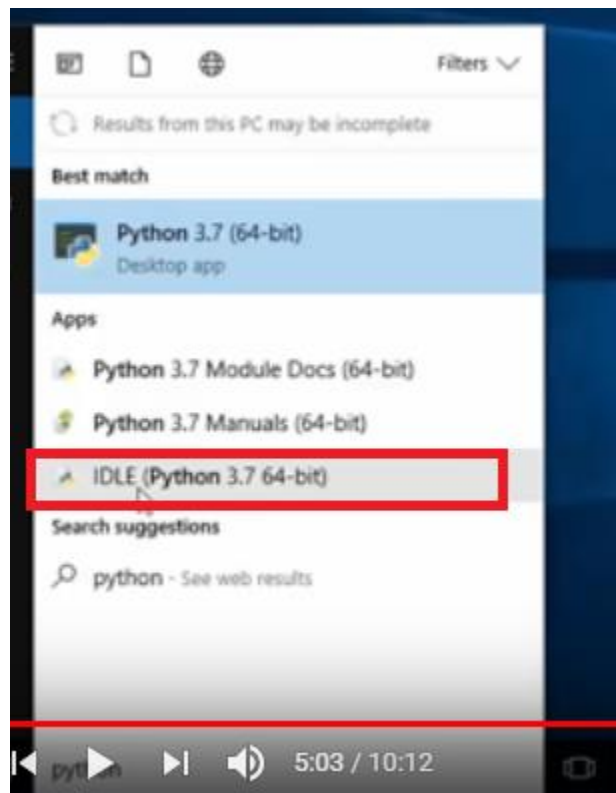
A screenshot of a Windows command prompt window titled "Python 3.7 (64-bit)". The window has a blue title bar and a black background. The text inside shows the Python version and build information, followed by a prompt where the user has entered a print statement to output "HELLO WVAZIR". The window's close button is highlighted with a red rectangle.

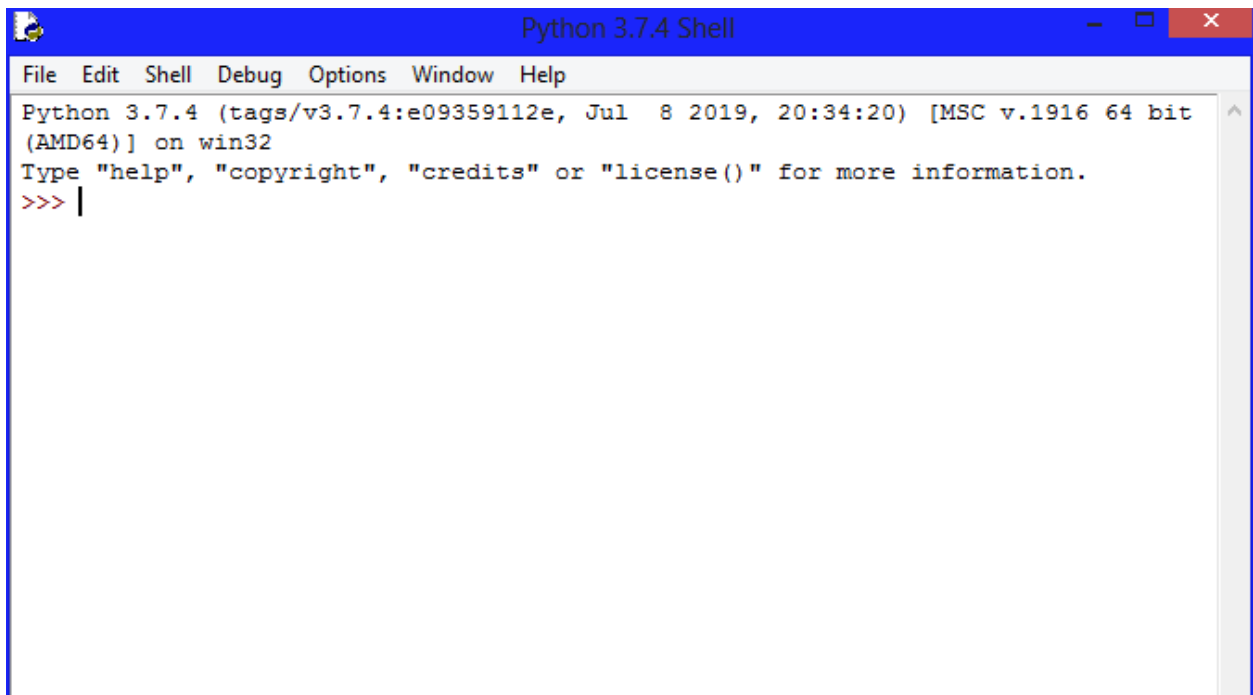
```
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit  
<AMD64>] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>> print("HELLO WVAZIR")  
HELLO WVAZIR  
>>>
```

**Close and open IDLE**



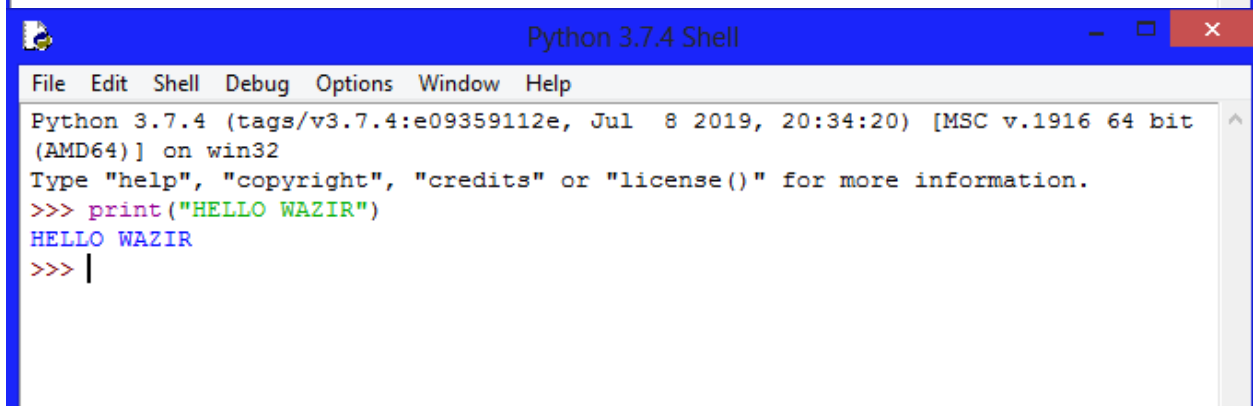
OR





A screenshot of a Windows application window titled "Python 3.7.4 Shell". The window has a blue title bar and a menu bar with "File", "Edit", "Shell", "Debug", "Options", "Window", and "Help". The main text area shows the following text: "Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32", "Type 'help', 'copyright', 'credits' or 'license()' for more information.", and a prompt ">>> |".

```
Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> |
```



A screenshot of a Windows application window titled "Python 3.7.4 Shell". The window has a blue title bar and a menu bar with "File", "Edit", "Shell", "Debug", "Options", "Window", and "Help". The main text area shows the following text: "Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32", "Type 'help', 'copyright', 'credits' or 'license()' for more information.", and a prompt ">>> |". The user has entered the command "print('HELLO WAZIR')", and the output "HELLO WAZIR" is displayed on the next line.

```
Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> print("HELLO WAZIR")
HELLO WAZIR
>>> |
```



A screenshot of the Windows Start menu search interface. The background is dark blue. At the top, it says "NOW WE CHECK PYTHON WORKING ON COMMAND PROMPT OR NOT" in red. Below this, the word "Apps" is displayed in large white font, followed by "Results for 'command'". A search bar on the right contains the text "command". Below the search bar, a list of results is shown, with "Command Prompt" being the first result, accompanied by its icon.

NOW WE CHECK PYTHON WORKING ON COMMAND PROMPT OR NOT

Apps Results for "command"

Search Apps command

Command Prompt

```
Command Prompt - python
Microsoft Windows [Version 6.2.9200]
(c) 2012 Microsoft Corporation. All rights reserved.

C:\Users\Stylish Computer>python
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> _
```

**Yes working and show version 3.7.4**

```
Command Prompt - python
Microsoft Windows [Version 6.2.9200]
(c) 2012 Microsoft Corporation. All rights reserved.

C:\Users\Stylish Computer>python
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> print("HELLO WAZIR")
HELLO WAZIR
>>> _
```

#### HOW TO INSTALL OPEN CV

```
Command Prompt
Microsoft Windows [Version 6.2.9200]
(c) 2012 Microsoft Corporation. All rights reserved.

C:\Users\Stylish Computer>_
```

**open new command prompt**

```
CA. Command Prompt
Microsoft Windows [Version 6.2.9200]
(c) 2012 Microsoft Corporation. All rights reserved.

C:\Users\Stylish Computer>python --version
Python 3.7.4

C:\Users\Stylish Computer>
```

```
CA. Command Prompt
Microsoft Windows [Version 6.2.9200]
(c) 2012 Microsoft Corporation. All rights reserved.

C:\Users\Stylish Computer>python --version
Python 3.7.4

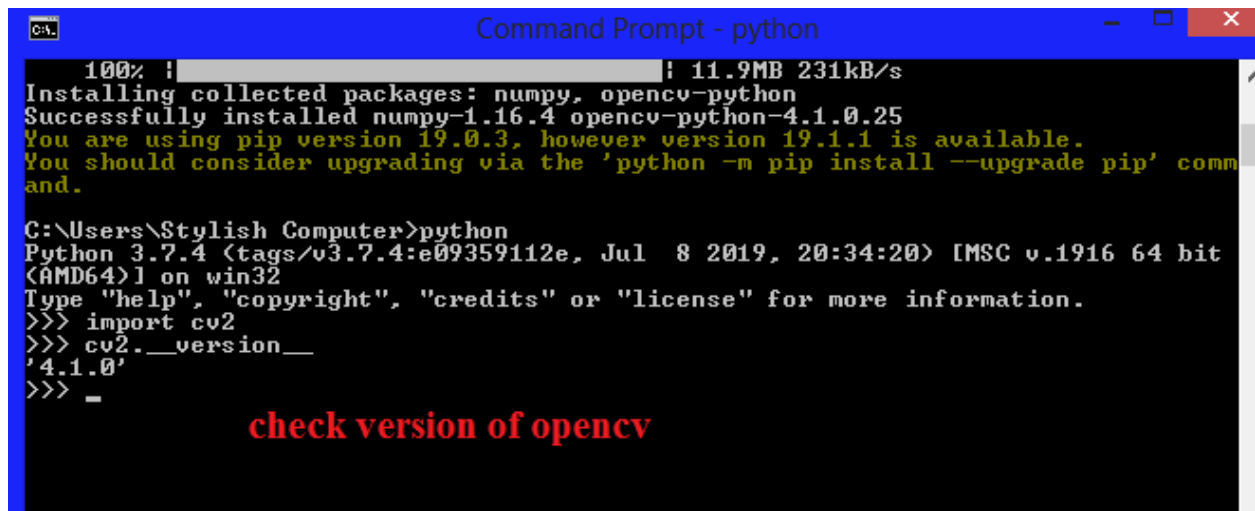
C:\Users\Stylish Computer>pip --version
pip 19.0.3 from c:\python\python37\lib\site-packages\pip (python 3.7)

C:\Users\Stylish Computer>
```

```
C:\Users\Stylish Computer>pip install opencv-python
Collecting opencv-python
  Downloading https://files.pythonhosted.org/packages/a3/50/04d0669afe884f137c2f490642756e8c4a658254300a9eaf253d1e643085/opencv_python-4.1.0.25-cp37-cp37m-win_amd64.whl (37.3MB)
    100% |#####| 37.4MB 133kB/s
Collecting numpy>=1.14.5 (from opencv-python)
  Downloading https://files.pythonhosted.org/packages/ce/61/be72eee50f042db3acf0b1fb86650ad36d6c0d9be9fc29f8505d3b9d6baa/numpy-1.16.4-cp37-cp37m-win_amd64.whl (11.9MB)
    100% |#####| 11.9MB 231kB/s
Installing collected packages: numpy, opencv-python
Successfully installed numpy-1.16.4 opencv-python-4.1.0.25
You are using pip version 19.0.3, however version 19.1.1 is available.
You should consider upgrading via the 'python -m pip install --upgrade pip' command.

C:\Users\Stylish Computer>python
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import cv2
>>>
```

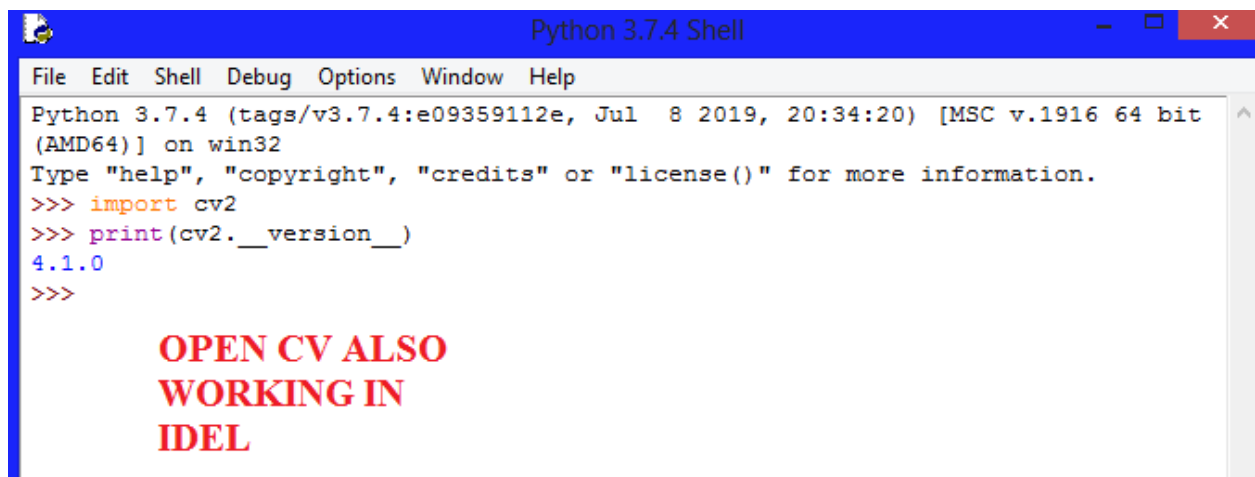
**Open CV Successfully Installed**



```
100% | | 11.9MB 231kB/s
Installing collected packages: numpy, opencv-python
Successfully installed numpy-1.16.4 opencv-python-4.1.0.25
You are using pip version 19.0.3, however version 19.1.1 is available.
You should consider upgrading via the 'python -m pip install --upgrade pip' command.

C:\Users\Stylish Computer>python
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> import cv2
>>> cv2.__version__
'4.1.0'
>>> _
```

**check version of opencv**



```
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> import cv2
>>> print(cv2.__version__)
4.1.0
>>>
```

**OPEN CV ALSO  
WORKING IN  
IDEL**



```
>>> img = cv2.imread('butterfly.png',0)
>>> cv2.imshow('image',img)
1 >>> img = cv2.imread('butterfly.png',1)
2 >>>
6
6
```

put 1 show color image



File Home Share View Manage

Computer > Local Disk (C:) > Python > Python37

Name	Date modified	Type	Size
DLLs	7/16/2019 5:28 PM	File folder	
Doc	7/16/2019 5:28 PM	File folder	
include	7/16/2019 5:27 PM	File folder	
Lib	7/16/2019 5:28 PM	File folder	
libs	7/16/2019 5:28 PM	File folder	
Scripts	7/16/2019 5:49 PM	File folder	
tcl	7/16/2019 5:28 PM	File folder	
Tools	7/16/2019 5:28 PM	File folder	
cat.png	7/6/2019 8:56 PM	PNG File	260 KB
LICENSE.txt	7/8/2019 8:38 PM	Text Document	30 KB
NEWS.txt	7/8/2019 8:38 PM	Text Document	676 KB
python.exe	7/8/2019 8:36 PM	Application	
python3.dll	7/8/2019 8:35 PM	Application extens...	
python37.dll	7/8/2019 8:35 PM	Application extens...	
pythonw.exe	7/8/2019 8:36 PM	Application	
vcruntime140.dll	7/8/2019 7:24 PM	Application extens...	

put image here

Python 3.7.4 Shell

```
Python 3.7.4 (tags/v3.7.4:09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> import cv2
>>> print(cv2.__version__)
4.1.0
>>> img = cv2.imread('cat.png',0)
>>> cv2.imshow('image',img)
>>> cv2.imshow('image',img)
>>>
```

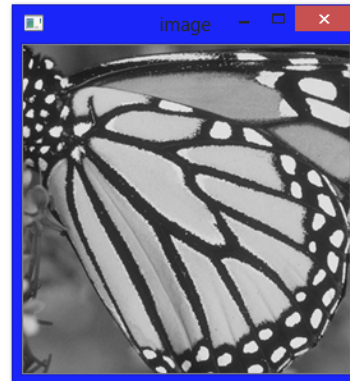
image

Lets see the cat!

```
In [47]: cat = cv2.imread('cat.png')
In [43]: plt.imshow(cat)
Out[43]: <matplotlib.image.AxesImage at 0x7ff308ee0bd0>
```

butterfly.png	12/15/2018 6:26 PM	PNG File	125 KB
cat.png	7/6/2019 8:56 PM	PNG File	260 KB
LICENSE.txt	7/8/2019 8:38 PM	Text Document	30 KB
NEWS.txt	7/8/2019 8:38 PM	Text Document	676 KB
python.exe	7/8/2019 8:36 PM	Application	98 KB
python3.dll	7/8/2019 8:35 PM	Application extens...	58 KB
python37.dll	7/8/2019 8:35 PM	Application extens...	3,661 KB
pythonw.exe	7/8/2019 8:36 PM	Application	97 KB
vcruntime140.dll	7/8/2019 7:24 PM	Application extens...	88 KB

```
>>> cv2.imshow('image',img)
>>> cv2.imshow('image',img)
>>>
>>> img = cv2.imread('butterfly.png',0)
>>> cv2.imshow('image',img)
>>>
```



## Read an image

`cv2.imread()` Second argument is a flag which specifies the way image should be read.

flag	integer value	description
<code>cv2.IMREAD_COLOR</code>	1	Loads a color image.
<code>cv2.IMREAD_GRAYSCALE</code>	0	Loads image in grayscale mode
<code>cv2.IMREAD_UNCHANGED</code>	-1	Loads image as such including alpha channel

Subscribe