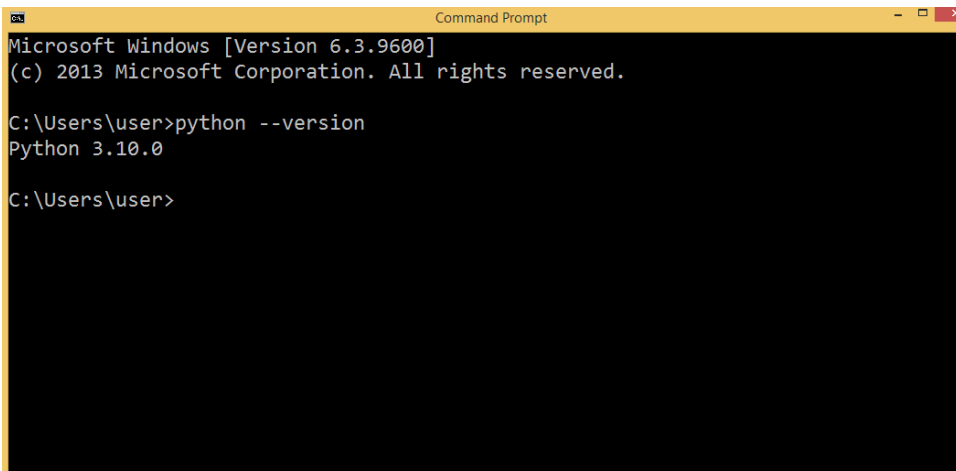


How to find python software is installed in system?

1. Open command prompt



```
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\user>python --version
Python 3.10.0

C:\Users\user>
```

Python working modes

We can work with python in 2 modes

1. Interactive mode
2. Scripting mode

Interactive mode

In interactive mode, we work with python shell.

Python shell is command line interface.

Python shell is interpreter which receive command interpret and execute.

Python shell is also called REPL (Read-Evaluate-Print-Loop)

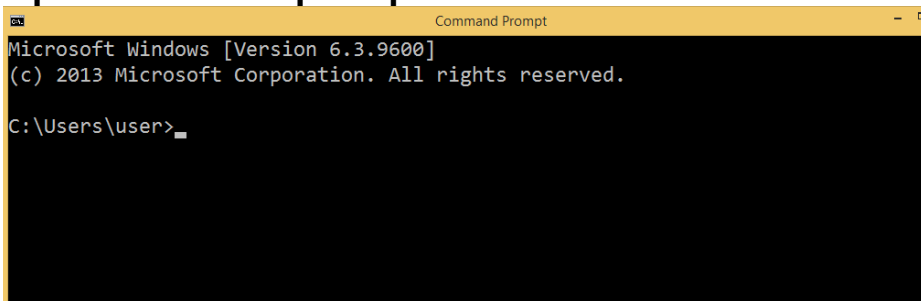
Eg: IDLE Shell, IPython

We can work with interactive mode in two environments

1. Dos environment
2. Windows environment

Dos environment or CUI (Command User Interface)/(Character user interface)

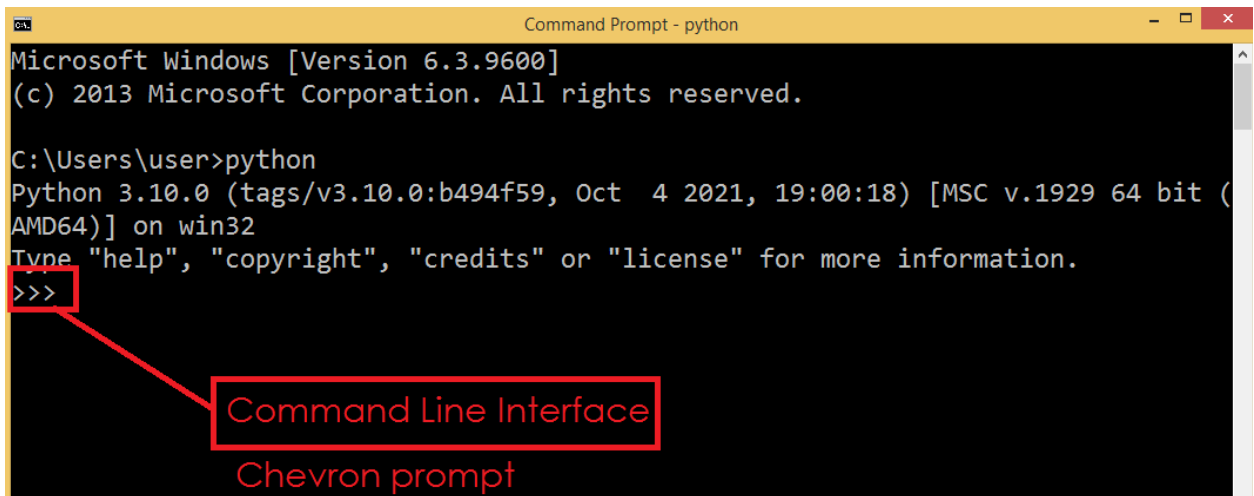
1. Open command prompt



```
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\user>
```

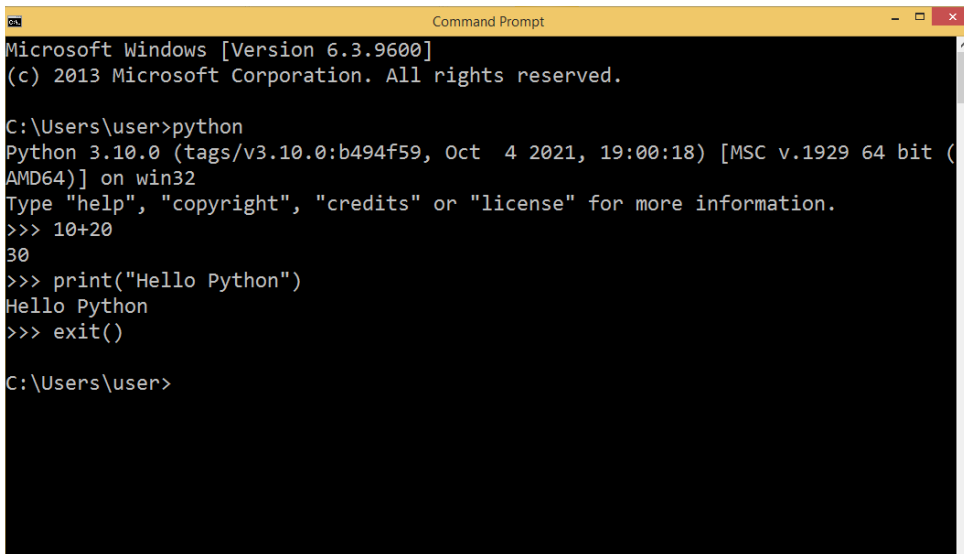
2.



```
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\user>python
Python 3.10.0 (tags/v3.10.0:b494f59, Oct 4 2021, 19:00:18) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

Command Line Interface
Chevron prompt



```
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\user>python
Python 3.10.0 (tags/v3.10.0:b494f59, Oct 4 2021, 19:00:18) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> 10+20
30
>>> print("Hello Python")
Hello Python
>>> exit()

C:\Users\user>
```

What type of operations is done in interactive mode?

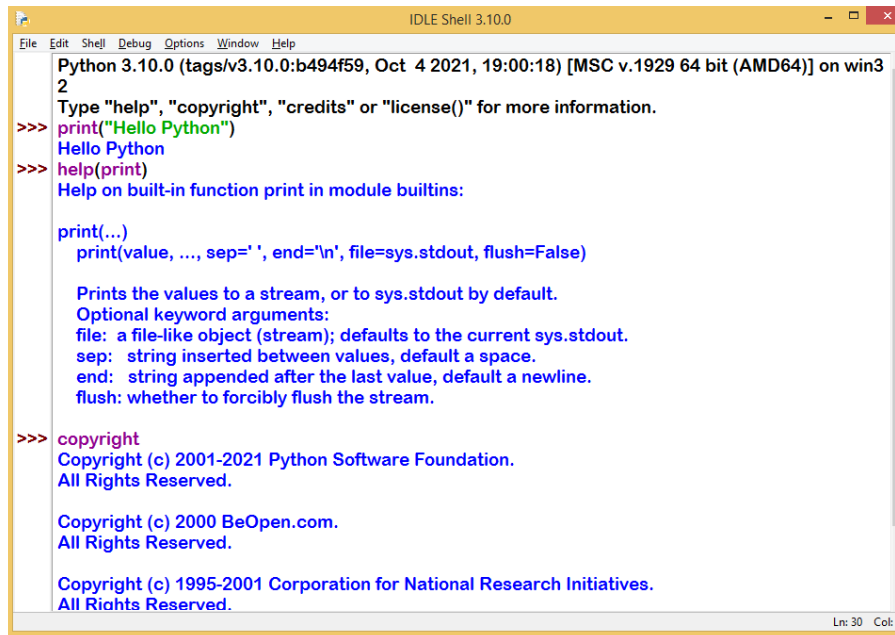
1. Configurations
 - a. Installing libraries
 - b. Path settings
 - c. Finding available packages/libraries
2. Testing functions or expressions
 - a. Finding a function perform operation according to application requirement
 - b. Evaluating expressions and finding the results

In interactive mode we can execute only one command.

Windows environment

How to work interactive mode in windows environment

1. IDLE



```
Python 3.10.0 (tags/v3.10.0:b494f59, Oct 4 2021, 19:00:18) [MSC v.1929 64 bit (AMD64)] on win32
2
Type "help", "copyright", "credits" or "license()" for more information.
>>> print("Hello Python")
Hello Python
>>> help(print)
Help on built-in function print in module builtins:

print(...)
    print(value, ..., sep=' ', end='\n', file=sys.stdout, flush=False)

    Prints the values to a stream, or to sys.stdout by default.
    Optional keyword arguments:
    file: a file-like object (stream); defaults to the current sys.stdout.
    sep: string inserted between values, default a space.
    end: string appended after the last value, default a newline.
    flush: whether to forcibly flush the stream.

>>> copyright
Copyright (c) 2001-2021 Python Software Foundation.
All Rights Reserved.

Copyright (c) 2000 BeOpen.com.
All Rights Reserved.

Copyright (c) 1995-2001 Corporation for National Research Initiatives.
All Rights Reserved.
```

Scripting mode or programming mode

Every python program is saved with extension .py

Python program is called module.

These modules are two types.

1. Predefined modules
2. User defined modules

Existing modules are called predefined modules. These modules are also called libraries.

Eg: os,datetime,calendar,sys,...

The modules or programs which are written by programmer are called user defined modules.

These modules are two types.

1. Executable modules
2. Non executable modules

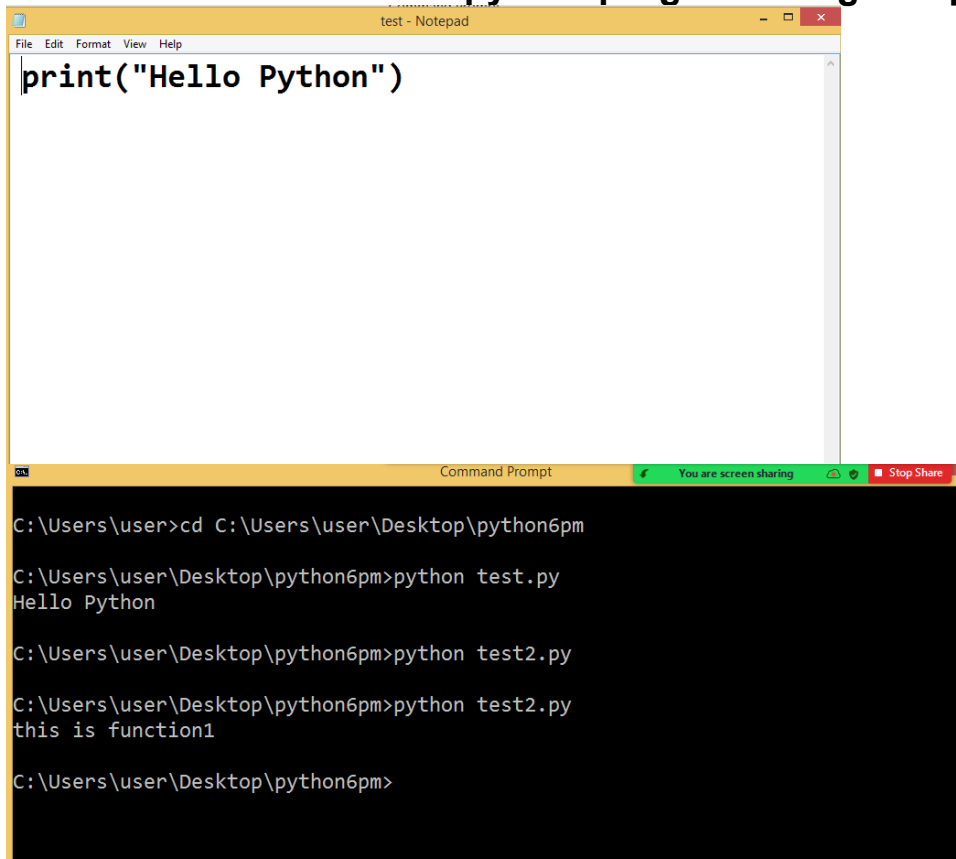
Executable modules: a module or program which contains executable statements are called executable module.

Non executable module: a module or program which does not executable statements is called non executable module or reusable module.

Where to write python program?

1. Python program can be written inside non python editors
2. Python program can be written inside python editors

How to write and execute python program using notepad?



The image shows a Windows desktop environment. At the top, a Notepad window titled 'test - Notepad' is open, displaying the following Python code:

```
print("Hello Python")
```

Below the Notepad window, a Command Prompt window is open. It shows the following commands and their outputs:

```
C:\Users\user>cd C:\Users\user\Desktop\python6pm  
C:\Users\user\Desktop\python6pm>python test.py  
Hello Python  
C:\Users\user\Desktop\python6pm>python test2.py  
C:\Users\user\Desktop\python6pm>python test2.py  
this is function1  
C:\Users\user\Desktop\python6pm>
```

A green status bar at the bottom of the Command Prompt window indicates 'You are screen sharing' with a 'Stop Share' button.

codewithsatishtgupta