

## Python Development Course:

### 1. What is Python :

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures.

### 2. Python Use Cases:

- Used for web development, scientific & mathematical application development etc.,
- 
- Provides excellent library support and has a large developer community.
- 
- Provides easy integration with web services & GUI-based desktop applications.
- 
- Used by most of the companies such as YouTube, Instagram, Pinterest etc.,
- Extensively used in Data Science and Machine Learning projects.

### 3. Python Installation Process

## Environment Setup & Python Basics

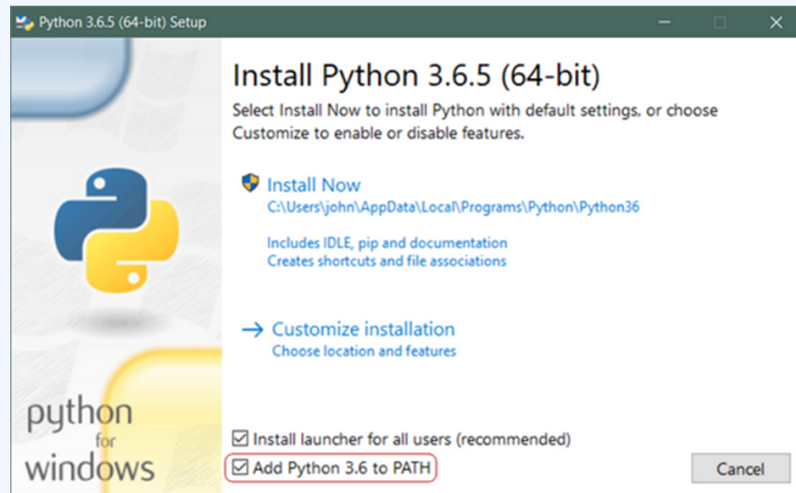
- **Download Python ->** <https://www.python.org/downloads/>



The screenshot shows the Python.org website's download page. The header includes the Python logo, a search bar, and navigation links like 'About', 'Downloads', 'Documentation', 'Community', 'Success Stories', 'News', and 'Events'. The main content area features a prominent 'Download the latest version for Windows' section with a 'Download Python 3.8.2' button. Below this, there are links for other operating systems (Linux/UNIX, Mac OS X, Other), pre-releases, and Docker images. The page also includes a 'Donate' button and a 'Socialize' link. The background of the page features a graphic of two parachutes with boxes hanging from them.

## Environment Setup & Python Basics

- **Installation Process:** click on add python x.x to path.



## Environment Setup & Python Basics

- **Verify python installation.**  
Execute command `python --version`

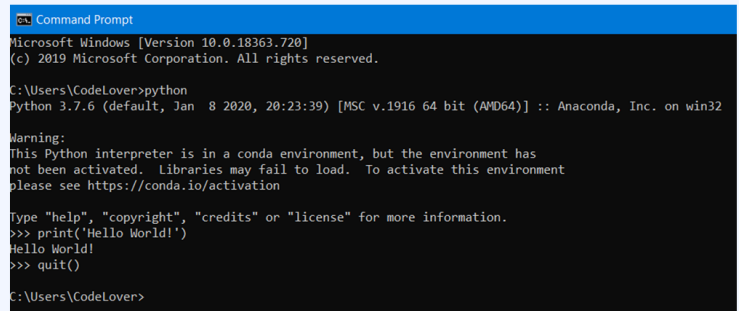
```
C:\Users\CodeLover>python --version
Python 3.7.6
```

## Environment Setup & Python Basics

- **Execution Mode:**

1. Interactive Mode:

- Open command prompt
- Execute command: python
- You should see >>> signs
- To exit this python editor execute command : quit()



```
Command Prompt
Microsoft Windows [Version 10.0.18363.720]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\CodeLover>python
Python 3.7.6 (default, Jan 8 2020, 20:23:39) [MSC v.1916 64 bit (AMD64)] :: Anaconda, Inc. on win32

Warning:
This Python interpreter is in a conda environment, but the environment has
not been activated. Libraries may fail to load. To activate this environment
please see https://conda.io/activation

Type "help", "copyright", "credits" or "license()" for more information.
>>> print('Hello World!')
Hello World!
>>> quit()

C:\Users\CodeLover>
```

## Environment Setup & Python Basics

- **Hello World! Program in python**

```
print("Hello World!")
```

- **Assigning values to variables**

```
a = 5
b = "Edyoda"
c, d = 3, 4
```

### 5. Python Basic Programs

```
a=10
b="Hi Python"
c = 10.5
print(type(a))
print(type(b))
print(type(c))
```

**Output:**

```
<type 'int'>  
<type 'str'>  
<type 'float'>
```

**Input :**

```
a = 5  
print("The type of a", type(a))  
  
b = 40.5  
print("The type of b", type(b))  
  
c = 1+3j  
print("The type of c", type(c))
```

**Output:**

```
The type of a <class 'int'>  
The type of b <class 'float'>  
The type of c <class 'complex'>
```