

# DATA HANDLING

## Data types

Data types are the classification or categorization of data items. It represents the kind of value that tells what operations can be performed on a particular data. Since everything is an object in Python programming, data types are actually classes and variables are instance (object) of these classes.

## Numbers

There are integers, float and complex numbers, which we can use in python.

## Strings

These are set of letters which are inside double quotes or single quote. It is a main topic in python which we discuss in later chapters.

## Lists

This is one of the sequence type data, which we use in various part of our program or in solving problem.

## Tuples

This is also like lists, but it has different character.

## Dictionary

This is mapping type, which is it shows and saves as key-value pair.

## set

This are from set types, which is similar to list and tuple but it also have its own character.



## Frozenset

The frozenset () is an inbuilt function in Python which takes an iterable object as input and makes them immutable. Simple it freezes the iterable objects and makes them unchangeable.

## Bool

True / False.

## Mutable / Immutable

Mutable means changeable and immutable means unchangeable.

## Advantages

- ① Helpful when your script is extremely short and you want immediate results.
- ① Faster as you only have to type a command and then press the enter key to get the results.
- ① Good for beginners who need to understand Python basics.

## Disadvantages

- ① Editing the code in interactive mode is hard as you have to move back to the previous commands or else you have to rewrite the whole command again.
- ① It's very tedious to run long pieces of code.



## D/B script mode and Interactive mode.

- ↳ The interactive mode involves running your codes directly on the python shell which can be accessed from the terminal of the operating system.
- ↳ In the script mode, you have to create a file, give it a name with a .py the extension then runs your code.
- ↳ The interactive mode is suitable when running a few lines of code.
- ↳ The script mode is recommended when you need to create large applications.