

python Modules -

- Modules provide us with a way to share reusable functions.
- A module is simply a 'python file' which contains code we can reuse in multiple python programs.
- A module may contain functions, classes, lists, etc.
- Modules in python can be of two types:-

- Built-in Modules
- User-defined Modules

i) Built-in Modules in python one of the many superpowers of python is that it comes with a "rich standard library". This rich standard library contains lots of built-in modules. Hence, it provides a lot of reusable code.

- To name a few python contains modules like "os", "sys", "datetime", "random".
- You can import & use any of the built-in modules whenever you like in your program.

ii) User-Defined Modules in python

- Another superpower of python is that it lets you take things in your own hands.

- you can create your own functions and classes, put them inside modules and voila!

- you can include hundreds of lines of code into any program just by writing a simple import statement.

* Advantages of comments in python -

- comments in python provide numerous advantages.

- primary benefits are:-

- Makes the code easily understandable by other programmers
- The code becomes self-explanatory.
- Helps remember why we used a specific command, method, or function in the code
- Enables the interpreter to ignore some part of the code while testing.

* Different Types of comments

There are three types of comments -

- 1) Single-line
- 2) multi-line
- 3) docstring comment

1) Single-line comment

- Single-line comments begin with "#" character. Anything that is written in a single line after '#' is considered as a comment.

Syntax:-

comments here

2) Multi-line comments:-

- Python does not support multi-line comments. However, there are multiple ways to overcome this issue.
- None of these ways are technically multi-line comments, but you can use them as one.
- The first way is by using # at the beginning of each line of the comment.
- The next way is by using string literals but not assigning them to any variables.
- To comment out multiple lines in Python you can prepend each line with hash (#).

3) docstring comment

- Python documentation strings provide a convenient way of associating documentation with Python modules, functions, classes & methods.
- The docstrings are declared using ''' triple single quotes or """ triple double quotes just below the class, method or function declaration.