# Python Docstrings

Python documentation strings (or docstrings) provide a convenient way of associating documentation with Python modules, functions, classes, and methods.

It’s specified in source code that is used, like a comment, to document a specific segment of code. Unlike conventional source code comments, the docstring should describe what the function does, not how.

**What should a docstring look like?**

* The doc string line should begin with a capital letter and end with a period.
* The first line should be a short description.
* If there are more lines in the documentation string, the second line should be blank, visually separating the summary from the rest of the description.
* The following lines should be one or more paragraphs describing the object’s calling conventions, its side effects, etc.

**Declaring Docstrings:** The docstrings are declared using ”’triple single quotes”’ or “””triple double quotes””” just below the class, method or function declaration. All functions should have a docstring.

**Accessing Docstrings:** The docstrings can be accessed using the \_\_doc\_\_ method of the object or using the help function.  
The below examples demonstrates how to declare and access a docstring.

## Python Comments vs Docstrings

**Python Comments**

Comments are descriptions that help programmers better understand the intent and functionality of the program. They are completely ignored by the Python interpreter.

In Python, we use the hash symbol # to write a single-line comment.

**Python docstrings**

As mentioned above, Python docstrings are strings used right after the definition of a function, method, class, or module. They are used to document our code.

## Python \_\_doc\_\_ attribute

Whenever string literals are present just after the definition of a function, module, class or method, they are associated with the object as their \_\_doc\_\_ attribute. We can later use this attribute to retrieve this docstring.

### Docstrings for the built-in print() function

print(print.\_\_doc\_\_)

print(help.\_\_doc\_\_)

**Docstrings of python module**

import pickle

print(pickle.\_\_doc\_\_)

## Docstrings for Python Scripts

* The docstrings for Python script should document the script's functions and command-line syntax as a usable message.
* It should serve as a quick reference to all the functions and arguments.

## Docstrings for Python Packages

The docstrings for a Python package is written in the package's **\_\_init\_\_.py** file.

* It should contain all the available modules and sub-packages exported by the package.