

File Handling

Open a file in python

Python allow us to create and manage two types of file

Text: A text file is usually considered as sequence of lines. Line is a sequence of characters (ASCII), stored on permanent storage media.

Binary: A binary file contains arbitrary binary data i.e. numbers stored in the file, can be used for numerical operation(s).

To handle data files in python, we need to have a file object. Object can be created by using **open()** function or **file()** function. To work on file, first thing we do is open it. This is done by using built in function open().

Open a text file

file_object = open(filename [, access_mode] [,buffering])

Ex: file= **open**("namelistxiiA.txt")

open() requires three arguments to work

First one (filename) is the name of the file on secondary storage media, which can be string constant or a variable. The name can include the description of path, in case, the file does not reside in the same folder / directory in which we are working.

The **second parameter (access_mode)** describes how file will be used throughout the program. This is an optional parameter and the default access_mode is reading.

The **third parameter (buffering)** is for specifying how much is read from the file in one read

File access modes:

r	r will open the text file for reading only. This is also the default mode. The file pointer is placed at the beginning for reading purpose, when we open a file in this mode.
w	w will open a text file for writing only. A non existing file will be created using this mode. The file pointer is again placed at the beginning. We open an already existing file (i.e. a file containing data) in this mode then the file will be overwritten as the file pointer will be at the beginning for writing in it.
a	a mode allow us to append data in the text file. Appending is writing data at the end of the file. In this mode, file pointer is placed at the end in an existing file. It can also be used for creating a file, by opening a non existing file using this mode.
r+	r+ will open a text file for both reading and writing purpose. The file pointer is placed at the beginning of the file when it is opened
w+	w+ opens a file in text format for both writing and reading. File pointer will be placed at the beginning for writing into it, so an existing file will be overwritten. A new file can also be created using this mode.
a+	a+ opens a text file for both appending and reading. File pointer is placed at the end of the file, in an already existing file. Using this mode a non existing file may be created.