Get\_next\_line

**File descriptor**

**Indices(index)** of integer values (0, 1, 2…could be more depending on what you create) pointing to the file descriptor table

FDs in a Unix-like operating system are integer identifiers that the kernel uses to **represent** **open files**, terminal, sockets, or other I/O resources. When a process is started, it usually has three default file descriptors, 0, 1, 2.

By choosing 1, stdout, you are telling the system to write your code into the the resources as listed.

**FD table**

0: stdin (standard input)

1: stdout (standard output)

2: stderr (standard error)

(these are the default FDs)

Everything in linux system is considered a “file”, even the terminal. That’s why we use FD when we want to print out on the terminal by using FD 1.

When you open/create a new file or socket in your program, the operating system assigns the next available file descriptor to it. So, if you open a new file after the default ones, it would likely get FD 3, then subsequent opens would get FD 4, FD 5, and so on.

fopen function

syntax: fopen(filename, mode)

* Mode: the mode in which the file is opened (R for read, W for write, A for append)

Open function

ts primary purpose is not to create files per se, but rather to open existing files for reading, writing, or other file-related operations.

While it doesn't create files directly, when used with a write mode ('w' or 'a' in Python, or **O\_WRONLY or O\_CREAT in C)**, it can be used to create a new file or truncate an existing one.

Header: fcntl.h

Syntax: open(“filename”, flags)

* Flags such as O\_RDONLY (read only), this part allows you to specify the mode in which you want to open the file.

Return value: FD, open function returns a FD

The **O\_CREAT** flag indicates that the file should be created if it does not already exist. Along with **O\_CREAT**, you often use **O\_WRONLY** or **O\_RDWR** to specify write or read-write access, respectively.

Here's an example of using **O\_CREAT** and **O\_WRONLY** to create a new file or open an existing one for writing:

Open(“specific file name that you like to create”, O\_RDONLY **| O\_CREAT)**