

# Input Output and Redirection

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# What is File Descriptor?

In Unix and related computer operating systems,

a file descriptor (FD) is an abstract indicator used to access a file or other input/output resource, such as a pipe or network socket.

File descriptors form part of the POSIX application programming interface.

# Input/Output Types

I/O Name	Abbreviation	File Descriptor
Standard Input	stdin	0
Standard Output	stdout	1
Standard Error	stderr	2

## Redirection

- > - Redirects standard output to a file (Overwrite existing content)
- >> - Redirects standard output to a file (Append to any existing content)
- < - Redirects input from a file to a command

# Input/Output Examples

Examples:

- `ls -l > file.txt` - this will put Output of ls command to file.txt (with overwriting)
- `2 > /dev/null` - this will put any error happens to the null place
- `sort < file.txt` - this will take the input from the file.txt for the sort command