Directory Definition

According to the Linux Information project:

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The term *directory* is used in a computer software context to refer to what appears to the user to be a *container* or *folder* that can hold *files* and other directories.

A file is a named collection of related data that appears to the user as a single, contiguous block of information and that is retained in *storage*. Storage refers to computer devices or media which can retain data for relatively long periods of time (e.g., years or decades), such as hard disk drives (HDDs), CDROMs and magnetic tape.

In Linux and other Unix-like operating system, everything on the system is treated as being a file, and a directory is thus considered to be just a special type of file that contains a list of file names and extra information about each file but not its actual data.

Directories play a key role in hierarchical filesystems, which are fundamental to modern computer operating systems, by allowing the grouping of directories and files in order to organize the filesystem into a modular hierarchy. This gives the filesystem structure flexibility and depth; it also facilitates searching for data and adds to the robustness of data storage.

At the top of this hierarchy is the *root directory*, which is the single directory on a Unix-like operating system that contains all other directories and which is represented by a forward slash. Every directory, except for the root directory, has one *parent directory* (i.e., a directory in which it is contained). Any directory can have one or more *child directories*, also referred to as *subdirectories*. Every directory is also a subdirectory except for the root directory.

An *empty directory* is a directory that does not contain any subdirectories or files other than the two special files that automatically exist in every directory on a Unix-like operating system. One, which is designated by a single dot, represents the directory itself. The other, which is designated by two dots, represents its parent directory. In GUIs (graphical user interfaces), these files are often by default set as *hidden files*, which are filesystem objects that are not normally visible to the user but which remain visible to the operating system.

Every user is always working within a directory. Whichever directory a user is currently working in is that user's *current directory*. The name of the current directory is usually obvious, but it can also be found by using the *pwd* (i.e., *present working directory*) command. The current directory can be changed with the *cd* (i.e., *change directory*) command.

There are various ways of creating and deleting directories. When using the command line (i.e., all-text mode), directories can be created with the *mkdir* command, and they can be removed with the *rmdir* and *rm* commands.

In the command line, any directory other than the root directory is represented by its name followed by a forward slash on most operating systems (but by a backslash on Microsoft operating systems). In GUIs on most operating systems, directories are typically represented by icons (i.e., small images) that resemble the folders that were formerly used in large numbers in most offices to organize paper documents.

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NOTE 1

Some paragraphs were removed or modified. If you want to read the original document, you should open the following link: http://www.linfo.org/directory.html