A **file management system** is an application that is used to store, arrange, and access files stored on a disk or other storage location. The main purpose of a file manager is to enable users to create and store new files on a device (laptop or desktop), view all the files stored on the device, and to organize files in different hierarchical arrangements, such as folders, for easy classification. The basic operations possible with a file management system include:

- Creating new files
- Displaying all stored files
- Moving files between locations
- Adding and editing basic metadata
- Sorting files based on criteria such as date modified, date created, file size, file format, etc.

Functions of File Management System in Operating System

The file management function of operating system is based on following concepts:

1. File attributes
2. File operations
3. File access permissions
4. File system

1) File Attributes

File attributes are the properties associated with a file that specifies the different information related to the file or data of the file. It specifies the characteristics of a file, such as a type and location that completely describe a file.

The following are some of the key file attributes

1. **Name**
   It specifies the name or title of the file which is specified by the user at the time of saving of it. The name is used to specify the title detail of the file.
2. **File   type**
   It specifies the type of the file such as a word document or an excel document or any other type. Type of the file is important in recognizing the requirement and function of a file.
3. **Location**
   It specifies the location of the file where it is stored in memory.

4. **Size**
   It specifies the size of the files in bytes. It specifies the memory taken by any data file in the disk.
5. **Date and Time**
   It specifies the date and time when the file was created, last accessed and last modified also.
6. **Read Only**
   It specifies that the file can be open only for reading purpose.
7. **Hidden**
   If this attribute of the file is selected, then the file is hidden from the user.
8. **Archive**
   If this attribute of a file is selected then the backup of the file is created.

2) File Operations

File operations are the various tasks that are performed on files. A user can perform these operations by using the commands provided by the operating system. The following are some of the typical file operations:

1. **Creating**
   It helps in creating a new file at the specified location in a computer system. The new file could be a word document, an image file or an excel worksheet.
2. **Saving**
   It helps in saving the content written in a file at some specified location. The file can be saved by giving it a name of our choice.
3. **Opening**
   It helps in viewing the contents of an existing file.
4. **Modifying**
   It helps in changing the existing content or adding new to an existing file.
5. **Closing**
   It helps in closing an already open file.
6. **Renaming**
   It helps in changing the name of an existing file.
7. **Deleting**
   It helps in removing a file from the memory of the computer system.

3) File Access Permissions

File access permission help specify the manner in which a user can access a file. These are the access rights that allow us to read, write or execute a file. The following are some of the typical file access permissions:

1. **Read**
   It allows the user to only read the content of existing.
2. **Write**
   It allows the user to only modify the content of an existing file.

3. **Execute**
It allows the user to run an existing file stored in the computer system.

4) File System

File systems are used by an operating system to store and organize the various files and their information on a hard disk. The following are the two different file system that is used to organize files in a computer system:

1. **File Allocation table**
It is a method used to organizing files and folder in the form of a table, which is known as FAT. This type of system is used for disks that are smaller in size and contain simple folder. The different types of FAT systems are FAT12, FAT16 and FAT32.

2. **New Technology File System (NTFS)**
This file system is specially designed for large hard disks for performing basic file operations, such as reading, writing, modifying, saving, etc. NTFS overcome drawbacks of the FAT system.