

**UNIVERSITY OF SCIENCE  
FACULTY OF INFORMATION TECHNOLOGY**



**ASSIGNMENT 03.02  
SUBJECT: OPERATING SYSTEM**

**Class:** 21CLC03

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## I. Investigate and present file attributes on 2 file systems under 2 application information operating systems. (Windows vs. MacOS)

	Windows	MacOS
1. File name	Both operating systems allow using ASCII characters to name a file.	
	Windows does not allow using these special characters.	MacOS allows using special characters such as space and dot to name a file.
2. File extension	Both operating systems use file extension to determine the file format. On MacOS and Windows, the file extension is placed after the file name, separated by a dot (e.g., file.txt).	
3. File path	Both operating systems use file path to determine the location of a file in the file system.	
	Windows uses backward slash (\) to separate directories in the file path.	MacOS uses forward slash (/) to separate directories in the file path.
4. File size	Both operating systems display file size in bytes	
	On Windows, the file size is displayed in kilobytes (KB).	On MacOS, the file size is displayed in basic unit byte (B).
5. Access rights	Both operating systems have the concept of access rights and allow users to specify the access rights of a file for different users. However, the way to set access rights on these operating systems may be different and must comply with their own rules.	
6. Creation, modification, and access time	Both operating systems store information about the creation, modification, and access time of a file. However, the format and the way to access this information on these operating systems may be different.	
7. Hidden attribute	This attribute allows the user to hide a file from view in the file system.	
	On Windows, a hidden file is designated by a hidden attribute that can be set or cleared through file	On MacOS, a file can be hidden by adding a dot before the file name.

	properties.	
8. Read-only attribute	This attribute allows the user to specify that a file is read-only, which means it can be viewed but not modified or deleted.	
	On Windows, the read-only attribute can be set or cleared through file properties.	On MacOS, a file can be made read-only by using the "Get Info" option and checking the "Locked" checkbox.
9. Archive attribute	This attribute is used to indicate whether a file has been backed up or not.	
	On Windows, the archive attribute is set when a file is created or modified and can be cleared manually.	On MacOS, the "Last Modified" time is used to determine whether a file has been backed up or not.
10. Encryption attribute	This attribute is used to indicate whether a file has been encrypted or not.	
	On Windows, file encryption can be enabled using the EFS (Encrypting File System) feature.	On MacOS, file encryption can be enabled using the built-in FileVault feature.
11. Owner attribute	This attribute indicates the user who owns the file.	
	On Windows, the owner of a file can be changed through the file properties.	On MacOS, the owner of a file can be changed using the "Get Info" option and selecting the new owner from the drop-down list.

## II. References

- (1): <https://www.javatpoint.com/os-attributes-of-the-file>
- (2): <https://www.guru99.com/file-systems-operating-system.html#file-attributes>
- (3): [https://en.wikipedia.org/wiki/File\\_attribute](https://en.wikipedia.org/wiki/File_attribute)