Comp 3411 A8

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Q1 :

Name: each file has his own file name associated within the file system. It has unique name such that no two file names are the same that are contained into the same file directory.

Identifier: unique extension or tag used to identify the type of the file stored.

Type: the type of file that is stored, such as audio, text, pdf....

Size: the size of the file in the file system that is calculated by the number of bytes in memory that is allocated for it.

Location: This information is a pointer to a device and to the location of the file on where that file is stored on the device.

Protection access controls information: it managed with who can perform reading, writing, executing, and other permissions that has to do with this file.

Time and date: in the file system each file have timestamps of time and date when it was last modified.

Q2 :

The basic operation that can be performed on a file:

1.Creating, 2.Opening, 3.Reading date, 4.Writing date, 5.Deleting, 6.Closing, 7.Changing permissions and attributes, 8.Move

Q3 :

In an operating system the system itself knows that program it needs to use to be able to view or edit a file by looking at the file extension. It can do this because each operating system has default mapping between file extensions and programs. This information can be using when a user clicks on a file the operating system reads the file extension and then launches the mapped application. Typically, if the extension is unknown to the operating system or no application mapping exists it will ask the user to specify the program that is would like to open the file with them maps it for future use.

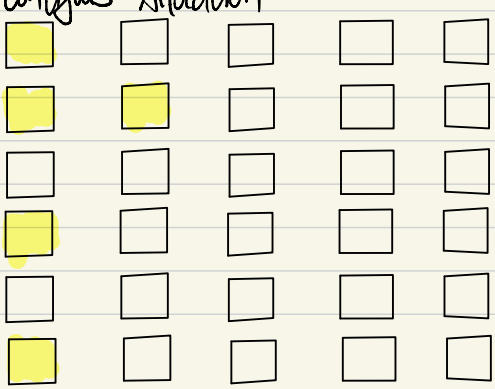
Q4: In the application itself it identifies the type of file that the application is using, this allows the applic ation to know what properties the file has that the application can manipulate. Such as, if it is a word file it can be read and modified by its application, or a video file that can only played.

Q5: Sequential access:
Sequential file is then the computer system reads or writes date to the file sequentially staring from the beginning of the file and continuing in order.
Reading happens in order and is relatively fast operation.
Date is accessed in order one after the other.
Direct access:
Direct access is when a file located in a computer system can read or write date anywhere on the date file.
Advantages as you do not have to read in order and can

Q6: Direct access has the ability to obtain date from a storage device by going directly to where it is physically located on the disk rather than having to sequentially look for the date at one physical after another. A direct access storages DASD has the electrical or electromechanical means to be immediately positioned for reading and writing are any addressable location on the device.

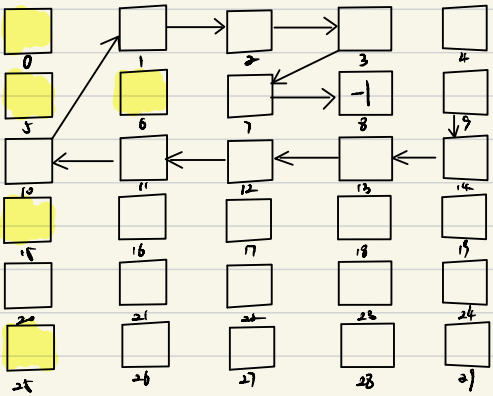
Q7: Basic operations of a directory: 1. Create, 2. Deleting, 3. Rename, 4. Copy

Q8: Contigous Allocation



Since the largest avaible contigous memory is 9 blocks
This file can not be allowed with contigous allocation.

Linked Allocation



Directory start 9 End 8

Index Allocation