HANDLING COMPUTER FILES

Basic operations on Computer files

The following are some of the basic operations on a computer file:

- 1. **File creation**: using an application package to create a file
- 2. **File deletion**: an unneeded file can be removed (deleted) from the computer to free up disk space.
- 3. **File retrieval**: the file is brought out from where it is located for further processing
- 4. **File copy**: process of making duplicate copies of a file
- 5. **File open**: files are loaded (opened) before it can be used. The content are being displayed on the screen
- 6. **File close**: when you are done with a file and need to free up main memory space, you close the file.
- 7. **File read**: The file read operation is performed just to read the data that are stored in the required file. No addition is done to the file.
- 8. **File Write**: The file write operation is used to write the data to the file, again, generally at the current position.
- 9. **File Update**: making changes to the content/records of a file
- 10. **File Rename**: The file rename operation is used to change the name of the existing file.

File insecurity and its effect

File insecurity is a concept that a file is always vulnerable and is prone to be lost or missing in the computer. Virus attack, careless deletion of files, hardware failure/malfunctioning etc. are some of the causes of file insecurity.

The following are the effects of file insecurity:

1. Loss of data

2. Data unreliability

3. Data corruption

Methods of File Security

The methods of file security include:

1. **Use of backup**: make copy of computer files on DVD, external HD, CD etc.

2. **Use of antivirus**: install and update antivirus to avoid virus attack

3. **Passwords**: Password your computer to prevent unauthorized access to the files.

4. **Proper labeling of storage devices**: this helps in identifying what file is stored in a particular storage device

5. **Disk/directory/file encryption**: encode/encrypt the file to make it meaningless to anyone that may have unauthorized access to it.

6. **Physical security:** e.g. security guards, alarm systems, lock on rooms and on computer etc.

Advantages and disadvantages of computer file

Advantages

1. Faster and efficient in processing of information

2. More secure

3. Fast to access

4. Uses less space

5. More accurate

6. Can be updated

7. Permits long term storage and retrieval

Disadvantages/limitations

1. Expensive to set up

2. Require power supply

3. Data are often duplicated

4. Can be corrupted

5. Vulnerable to virus attack

6. Requires formal training to handle

Differences between Computer Files and Manual Files

Computer files	Manual files
More secured	Less secured
More reliable	Less reliable
Can easily and neatly be modified	Cannot be easily and neatly modified

Fast to access	Slow to access especially if there is large number of file to check from
Can be attacked by virus and worms	Can be attacked by rodents, insects, fire etc.