## 40. Using Files

Any data keyed in while a program is running, is stored *temporarily* in the computer's *Central Memory* and is lost when the program finishes. If any data has to be kept for future use - it must be stored as a *file* on disk or tape; to do this, instructions have to be included in the program.

*A file is a collection of information on a particular topic which has been stored for future reference.*
For example, a business would need files containing:
1.      information about their staff;
2.      details of customers;
etc.

*In a manual system*, files might be stored in a filing cabinet, in document wallets, in box-files or in desk-drawers; a *file* might consist of a number of cards stored in a filing cabinet - each card being a *record* for a particular individual and being made up of a number of separate items of information (called *data-items* or *fields*).

*In a computer system,* files will usually be kept on a magnetic disk or tape; a *file* is created by writing chunks of data (*records*), one-at-a-time, onto disk or tape; again, each record contains information about an individual.
So - for example - to make a file of information about all the students in a class, all the data-items about a particular student would be gathered together to make a record - which would then be written onto the disk; then the same process would be repeated for the next student and so on until the file were complete.

*Exercises*
Details of all the students in a class are to be stored for reference.
1.      Where might they be stored in
        a)      a manual system;
        b)      a computer system ?
2.      How many records would you expect to find in the file ?
3.      What fields would you expect to find in each record ? - give them each a suitable COBOL dataname.
4.      When would the file be set up ?
5.      When might details in the file be altered ?
6.      Who might wish to refer to the details contained in the file and when ?