Verification, validation and input masks

Verification is when a human, through proofreading, checks data. You can do this in several ways:
· Proof read the work on the monitor or on a print out
· Check work on a monitor/print out with a manual copy
· Get somebody else to check the work for you.
· Two people typing in the same data, and if the data is the same it is accepted for processing. The only drawback to this is the unlikely event that the two people actually make the same mistake, and the wrong data is inputted.
The advantages of verification are that data is less likely to be inaccurate. For many companies such as banks, data being accurate is crucial.
However, it does take time to check all the data, and in cases such as having two people entering the data, this is using another person that could be doing other more important work, and two wages need to be paid which would lose money.
Validation can be used in a database, where you set up the fields in a database so that only certain information can be entered. It's a check by the actual computer program and makes sure that the data is allowable.
There are many different checks that can be performed:
· Character type check – This check will make sure that the correct characters are entered into the computer.
· Length check – Where the length of the word that has been entered is checked, and if this is incorrect an error message is displayed. For example when filling in a form, if the question "what sex are you" was asked, there are only two possible answers, male or female, so we know that the maximum number of letters that could be entered into this field would be 6.
· Range check – You can perform this check on number, to make sure that they are within a certain range. For example, upon entering peoples ages, there are not likely to be any people older than 130, so you could set it up so that this anything higher than this number could not be inputted.
· Presence check – When a code is entered that checks if there is actually something in the field. This would be used in a field which must have some data entered into it, such as a primary key field which would define each entry into the database.
· List check – This only allows certain data to be entered. For example, "Title." We know that there are only a certain amount of titles which could be entered, Mr, Mrs, Miss, etc. So we could enter them all into the computer, and if anything else was entered an error message would be displayed and the data could not be entered.
The advantages of validation:
· There is less chance of making typing errors as the computer checks all your data for you, and you do not have to look through the document so carefully for errors, therefore this is a timesaver.
Disadvantages:
· Validation rules can take a little time to set up.

· They also do not guard against typing errors completely.
Input masks allow you to actually design the way that data should be entered into certain fields. Data can be entered exactly how you wish it to be, with capital letters, or brackets, or percentage signs.
The advantages of input masks are that:
· They allow data to be entered quickly, you would not have to keep pressing the shift key for capital letters if you set up input masks to capitalise in certain places.
· All of the data will be accurate and consistent, providing you set up the input masks correctly, as the input masks will make sure that all of the data is the same.
· You do not need to waste time checking all of the data, as it is certain that it will all be correct.
The disadvantages of input masks are:
· When entering names, you could set it up so that the first letter of the 1st name, and the 1st letter of the surname are capitalised. However when it comes to names such as McHugh, the check would not allow the third letter of this name to be capitalised.
· Like validation rules, they can take a considerable amount of time to set up; time that could be better spent doing other things.
The following characters can be used to set up input masks.
0 – A number required
9 – A number optional
L – Letter must be entered
? – A letter optional.
> - A capital letter
< - A lowercase letter
If you wanted to set an input mask up for a postcode, you would do so in the following manner:
An example of a postcode may be CW5 6JY.
The input mask for this would be LL09 0LL
The “Ls” for capital letters, and the 9 would be there since some postcodes do have an extra number on the end, but not all therefore the number would be optional.