Excel to Access:
Intro to Access for Excel Users
Three Best Practices in Designing Table Structures

1. For Each of THESE, is there More Than One of THESE?

For example, for each CUSTOMER, could there be more than one Order? The answer is YES, so you need to split the data into two tables with a key field, like CustID, to link the two tables. For each Order, there could also be more than one Product ordered, so this means you need a third table, OrderProducts. For a lookup of the current product name and unit price, you also need a Products table. So we have FOUR tables in all and a fifth if you count the StateList table, used as a lookup for the customer state field.

2. The Only Duplication Should be the HOOK!

This just means that, ideally, you should have your tables linked (or HOOKED) together by a numeric key like CustID or OrderNo and this should be the only item of data that exists in both tables. BUT this is not a hard and fast rule. There may be times when you want to duplicate data. A good example is having the Unit Price in the Products table, but also in the OrderProducts table. We duplicate the Unit Price because the price may change. When it does, we still want to know what the price WAS when any particular order was created. If we don't do this, changing the unit price would alter any sales reports on past orders!

3. Keep Your Data as RAW as Possible!

You don't need (or want) ANY data that is the result of a calculation on other data. You will find that the forms we will use in the last sections of this course can contain their own calculations and do them instantly as the data is entered or changed. Importing calculated data from Excel is a needless waste of time and just another opportunity for an error.

If you follow these three rules, you should be able to arrive at the best table structures for your data. Remember to KEEP THINGS SIMPLE. If someone asks you to do something complex, ask them why and what they will get out of the change. Many times the information they are asking for can easily be generated through queries and reports, so the table structures just need to have the RAW data that the reports can be made from.