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| **Videos** | **Go to the datafile and find the Access Video Tutorials document. Click the links to watch the 2 videos.** |
| **Table** | **Button image**A database table is similar in appearance to a spreadsheet, in that data is stored in rows and columns. As a result, it is usually quite easy to import a spreadsheet into a database table. The main difference between storing your data in a spreadsheet and storing it in a database is in how the data is organized. |
| **Record/ Field** | Each row in a table is referred to as a record. Records are where the individual pieces of information are stored. Each record consists of one or more fields. Fields correspond to the columns in the table. For example, you might have a table named "Employees" where each record (row) contains information about a different employee, and each field (column) contains a different type of information, such as first name, last name, address, and so on. Fields must be designated as a certain data type, whether it's text, date or time, number, or some other type. |
| **Forms** | **Button image**Forms allow you to create a user interface in which you can enter and edit your data. Forms often contain command buttons and other controls that perform various tasks. You can create a database without using forms by simply editing your data in the table datasheets. However, most database users prefer to use forms for viewing, entering, and editing data in the tables. |
| **Reports** | **Button image**Reports are what you use to format, summarize and present data. A report usually answers a specific question, such as "How much money did we receive from each customer this year?" or "What cities are our customers located in?" Each report can be formatted to present the information in the most readable way possible. A report can be run at any time, and will always reflect the current data in the database. Reports are generally formatted to be printed out, but they can also be viewed on the screen, exported to another program, or sent as an attachment to an e-mail message. |
| **Queries** | **Button image**Queries can perform many different functions in a database. Their most common function is to retrieve specific data from the tables. The data you want to see is usually spread across several tables, and queries allow you to view it in a single datasheet. Also, since you usually don't want to see all the records at once, queries let you add criteria to "filter" the data down to just the records you want. |
| **Relationship** | One table can be related to another, which is generally referred to as performing a ***join.*** When tables with a common field are joined, data can be extracted from both tables as if they were one large table. An example would be an insurance company. The relationship that is established will ensure that a client cannot be entered in the Claims table without first being entered in the Clients table. This will ensure that a claim is not processed on a person who is not a client of the insurance company. This type of relationship is called a ***one-to-many*** relationship. |
| **One-to-Many** | A Record in one table that may be related to many records in another table. |
| **One-to-One** | A record in one table that is related to a single record in a second table. |
| **Creating a One-to-Many Relationship** | To create a one-to-many relationship use the following steps:   1. Click the DATABASE TOOLS tab. 2. Click the Relationships button in the Relationships group. 3. At the Show Table dialog box, add all desired tables. To do this click the first table name to be included and then click add. Continue in this manner until all necessary table names have been added to the Relationships window and then click the close button. 4. In the Relationships window, use the mouse to drag “one” field from the primary table to the “many” field in the related table. This will cause the Edit Relationship box to appear. 5. At the Edit Relationships dialog box, check the Enforce Referential Integrity box. Also check the Cascade Update Related Fields and/or Cascade Delete Related Records boxes. Ensure that the Relationship Type is reading One-to-Many. 6. Click the Create button. 7. Click the Save button on the Quick Access toolbar. |

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| This is an example of a one-to-many relationship, where the 1 identifies the “one” side of the relationship and the infinity symbol identifies the “many” side. |

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| **To Design a Query** | Use the following steps to design and perform a query:   1. Open the database, and click the CREATE tab. 2. Next click the Query Design button in the Queries group. 3. At the Show Table dialog box, click the desired table, and then click the Add button. 4. Add any additional table. When all tables have been added, click the Close button. 5. In query window, click the down-pointing arrow at the right of the first Field Text box in the query design grid and then click the desired field from the drop-down list. Continue to fill on the query design grid. 6. Insert criterion by clicking inside the Criteria text box in the column containing the desired field name in the query design grid and then type the criterion. 7. With the fields all established click the Run button in the Results group on the QUERY TOOLS DESIGN tab. 8. If you plan to use the query in the future, save the query and name it. If you will not need the query again, close the query results datasheet without saving it. |
| **Creating a Report** | To create a Report perform the following steps:   1. Click the desired table or query in the Navigation pane. 2. Click the CREATE tab. 3. Click the Reports button in the Reports group. |