

Creating Relationships Between Tables

Once you begin to understand the concept of relational databases, the process of actually linking the tables in a database is rather simple. You link related tables by connecting the table's common fields in Access's Relationships window. The Relationships window lets you view, create, and modify relationships among tables in a database.

Keep the following rules in mind as you link two tables:

- Linked fields should be (almost) identical.
- Related fields must have the same data type and field size and must contain the same kind of information. Related fields don't *have* to have the same field name but they should, to avoid confusion. The most common problem people have when they try to link two tables is caused by fields with different data types and/or sizes.
- The primary key in one table is usually linked with a matching field in the other table.
- Fields related to an AutoNumber primary key field must be Number fields with the Long Integer Field Size.

Now you're ready to create a relationship between the tables in your database. Here's how:

1. Click the **Database Tools** tab on the Ribbon and click the **Relationships** button in the Show/Hide group.

The Design contextual tab appears under Relationship Tools and a Relationships window appears.

Tip: If relationships already exist between the tables in your database, each of these tables will appear in a small box with lines connecting the table's linked fields.

First you have to add the tables that you want to relate using the Show Table dialog box.

2. Click the **Show Table** button in the Relationships group.

The Show Table dialog box appears.

3. Click the table you want to add and click **Add**. Repeat as necessary.

The table appears in the Relationships window.

Exercise

- **Exercise File:** Company.accdb
- **Exercise:** Open the Relationships window and add the tblCustomers, tblCustomerTours, and tblTours tables to the window. Link the TourID field in the tblTours table to the TourID field in the tblCustomerTours table. Save the change.

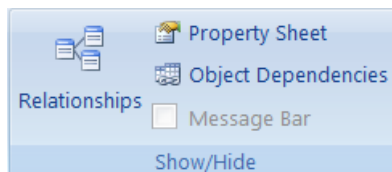


Figure 6-3: The Show/Hide group.

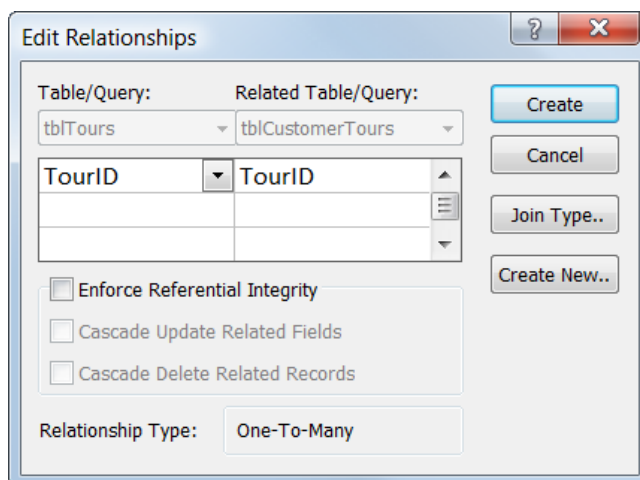


Figure 6-4: The Edit Relationships dialog box.

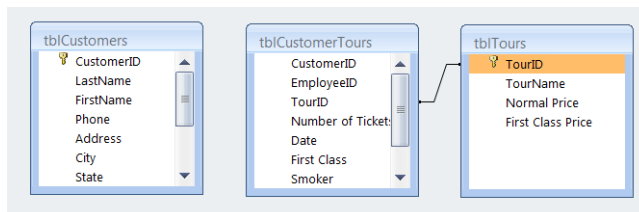


Figure 6-5: Linked tables in the Relationships window.

4. Click the **Close** button in the Show Table dialog box.

Now you're ready to start relating the tables you added. Relating tables may sound difficult, but it's really nothing more than dragging and dropping the field you want to use to link one table to the other.

✔ **Tip:** Before you can drag and drop the matching field from one table to the other, you have to make sure the linking fields in both tables are visible.

5. Click the related field in the first table and drag it to the related field in the second table.

Dragging a field from one table to another in the Relationships window links the two tables using the selected field.

✔ **Tip:** Access is very picky about where you point, click, drag, and drop. You need to be very accurate and drag the pointer right next to the field you're linking to.

The Edit Relationships dialog box appears. What's especially important here is the Enforce Referential Integrity check box. Referential integrity helps you avoid "orphan" records and maintains database accuracy. For example, checking the Enforce Referential Integrity box would ensure that you could not enter an invoice for a customer in an Invoice table unless that same customer existed in a Customers table. We'll discuss referential integrity more in another lesson.

6. Check the **Enforce Referential Integrity** (optional), then click the **Create** button to create the relationship.

The tables are now linked.

7. Click the **Close** button in the Relationships group on the Design tab and click **Yes** to save the changes.

🔍 **Other Ways to Relate Tables:**

Display a table in Datasheet View, click the **Datasheet** tab under Table Tools on the Ribbon, and click the **Add Existing Fields** button in the Fields & Columns group to display the Field List. Drag a field from a different table from the Field List pane onto the datasheet.

✔ **Tips**

- ✓ If you can't see all your table relationships, click the **All Relationships** button in the Relationships group on the Design contextual tab under Relationship Tools on the Ribbon.