

REFERENTIAL INTEGRITY

Maintain Referential Integrity

Referential integrity is a system of rules that control how data can be deleted or modified between related tables. This protects data from being changed erroneously from a primary table required by a related table. Referential integrity can be applied when:

- ☞ The matching field from the primary table is a primary key or has a unique index.
- ☞ The related fields have the same data type. There are two exceptions to this rule. They are:
 - ☆ An **AutoNumber** field can be related to a **Number** field with a **Field Size** property setting of **Long Integer**.
 - ☆ An **AutoNumber** field with a **Field Size** property setting of **Replication ID** can be related to a **Number** field with a **Field Size** property setting of **Replication ID**.
- ☞ Both tables belong to the same Microsoft Access database.
- ☞ If the tables are linked tables, they must be tables in Microsoft Access format.
- ☞ The database in which the tables are stored must be open.
- ☞ Referential integrity cannot be enforced for linked tables from databases in other formats.

Referential integrity places some limitations on entering records into a table.

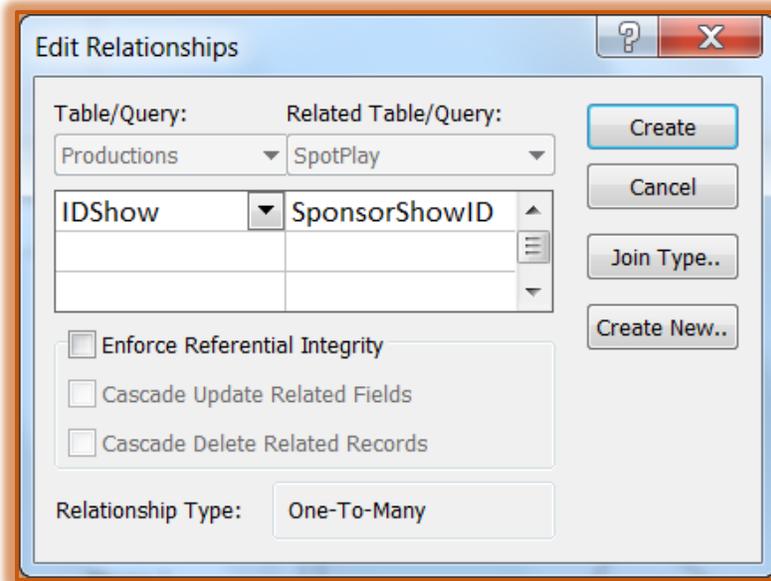
- ☞ Before adding a record to a related table, a matching record must exist in the primary table.
- ☞ The value of the primary key in the primary table cannot be changed if matching records exist in a related table.
- ☞ A record in the primary table cannot be deleted if matching records exist in a related table.

Ensure Referential Integrity

- ✚ Open **Access Training: Database2**.
- ✚ Click the **Database Tools Tab**.
- ✚ In the **Show/Hide Group**, click the **Relationships** button (see illustration below).



- ✚ The **Relationships** window should open.
- ✚ Click the **Show Tables** button in the **Relationships Group** (see illustration above).
- ✚ Add the **Spot Play** and the **Production** tables to the window.
- ✚ Drag the two tables below the **Representatives** and **Clients** tables.
- ✚ In this window, drag the borders of the box for **Spot Play** until all the field names are visible.
- ✚ In the **Productions** table box, click and hold the pointer over **IDShow**.
- ✚ Drag the pointer to the **SponsorShowID** field name in the **SpotPlay** box.
- ✚ Release the mouse button.
- ✚ The **Edit Relationships** dialog box will display (see illustration on next page).
- ✚ In the **Edit Relationships** dialog box, click the check box for **Enforce Referential Integrity**.
- ✚ This will establish a **One-to-Many Relationship** between the two tables.
- ✚ This means that the **Products** table contains one record while the **SpotPlay** table contains many records with the same **ID**.



† There are two other options that are available here as explained in the table below.

Option	Description
Cascade Update Related Fields	With this option, when a change is made to the related table, the change will be made in the other table also.
Cascade Delete Related Fields	With this option, when a record in one table is deleted, the entries in the related table will not be valid anymore. Therefore, Access will delete the records in the other table.

† Click the **Create** button.

† A relationship with referential integrity will be created.

† The type of relationship will be displayed above the line on the table as shown in the illustration below.

