# Multiple Table Databases (carried over from A2 Activity)

**3. Modify an Imported Table's Design**

    a.  Double-click the **Travelers table**. Switch to Design view. Make the following changes:

- Add a caption to the TravelID field of **Travel ID**.
- FirstName: Caption–**First Name**; Field size–**30**.
- LastName: Caption–**Last**; Field size–**30**.
- Zip: Change field name to **ZipCode**; Caption–**Zip Code**; Data Type–**Text**.
- Phone: Remove @ from the Format field.
- PastGuest: Caption–**Past Guest**; Data Type–**Yes/No**.
- TripID: Data type–**Text**; Caption–**Trip ID**; Field Size–**4**.
- BalanceDue: Data type–C**urrency**; Caption–**Balance Due**.

    b.  Type a new field name **JoinDate** under the BalanceDue field name. Use the following properties: Data type–**Date/Time**; Caption–**Join Date**; Format–**Short Date**. Click **View**. Read the messages, and then click **Yes** twice.

    c.  Add Join Date values for the first two records of March 22, 2010 and September 12, 2011.

    d.  Right-click the **Trips table**. Select **Design view**. Make the following changes:

- TripID: Data Type–**Text**; Field Size–**4**; Caption–**Trip ID**.
- TripName: Caption–**Trip Name**; Field Size–**100**; remove @ symbol from Format field.
- DepartureDate: Caption–**Departure Date**; Data Type–**Date/Time**; Format–**Short Date** from the Format field property.
- ReturnDate: Caption–**Return Date**; Data Type–**Date/Time**; Format–**Short Date**. Click **Save**.

    e.  Click **OK** in both messages. Close the Trips table. Click the **Travelers table tab**. Switch to Design view. Click the **ZipCode field name**, and then click **Input Mask** in Field Properties. Click **Build**. Click **Zip Code**. Click **Next**. Remove the hyphen and four 9s from the Input Mask. Click **Finish**.

    f.  Click the **Phone field name**, and then click **Input Mask**. Click **Build**, and then click **Save**. Select the **Phone Number Input Mask**. Click **Finish**. Click **Save**.

**4. Add Data to an Imported Table**

    a.  Click **View** in the Views group to display the Travelers table in Datasheet view. Click the **Travel ID field** in the last blank record. Type **1011**. Fill in the rest of the data using your information as the customer. Use fictitious info for all fields except the TripID field. For TripID, type **3200**. Close the Travelers table.

b.  Open the Trips table. In a new row, click in the **Trip ID column**. Type **3200** as the Trip ID, **Scottish Charm** as the Trip Name, and **8** for the Duration. Type **9/3/2011** for the Departure Date and **9/11/2011** for the Return Date. Close the Trips table.

**5. Establish Table Relationships**

a.  Click the **Database Tools tab**, and then click **Relationships**. Add all tables to the window. Close the Show Table dialog box. Create a relationship between the TripID field in the Hotels table and the TripID field in the Trips table. Check **Enforce Referential Integrity** and **Cascade Update Related Fields**. Click **Create**.

b.  Create a relationship between the TripID field in the Trips table and TripID field in the Travelers table. Check **Enforce Referential Integrity** and **Cascade Update Related Fields**. Click **Save**, and then close the Relationships window.

**6. Test Referential Integrity**

a.  Double-click the **Hotels table**. Add a new record: Hotel ID, **IT02**; Trip ID, **3250**; HotelName, **Caesars Villa**; PricePerNight, **200**; PartnershipDate, **10/12/10**. Press **Tab**, explain the error message; and then click **OK**.

b.  Double-click on **Trips table**. Note there is no 3250 record. Close the Trips table. Replace *3250* with **3150** in the new Hotels record. Press **Tab** three times. Close the Hotels table. Reopen the Hotels table, and then verify the change for IT02. Close all tables.

## Single Table Queries

You decide to test your database structure by experimenting with criteria specifications and sorting.

**1**. **Create a Query Using a Wizard**

a.  Click the **Create tab**, and then click **Query Wizard**. Click **OK**. Click the **Tables/Queries arrow**, and then select **Table: Travelers** (if necessary). Select **TravelID**, and then click the **> button**.

b.  Add **FirstName**, **LastName**, **TripID**, **TripName**, and **BalanceDue fields** to the query. Click **Next**. Confirm **Detail** is selected, and then click **Next**. Name the query **Balance Due**. Click **Finish**.

**2. Specify Query Criteria and Sorting**

a.  Click the **Home tab**, and then click **View**. Type **3102** as criteria for TripID.

b.  Sort the LastName column as Ascending. Click **Run**, and then save the query.

**3. Change Query Data**

a. Click the **BalanceDue field** in the record for TravelID 1005. Change *$1,450* to **$1400**. Press **Enter**. Close the query. Open the Travelers table; confirm the change for Travel ID 1005.

b. Open the Travelers table, and then locate *Travel ID 1007*. Change the balance due to $**100.00**. Close the Travelers table. Open the Balance Due query.

## Multi-Table Queries

You will generate a list of all travelers who have upcoming trips with a balance due that is greater than $2,000.00. You will then modify the query.

**1**. **Add Additional Tables to a Query**

a. Right-click the **Balance Due query**, and then select **Design View**. Drag the **Trips table** from the Navigation Pane to the design grid. Drag the **TripName field** from the Trips table to the grid.

b. Add the **Duration field** from the Trips table to the design grid. Click the **Show check box** under TripID. Remove the existing criteria from TripID. Remove the Ascending sort from LastName. Type **7** as a criterion for Duration, and then press **Enter**. Sort the BalanceDue field in Descending order, and then click **Run**.

c. Click **View**. Drag the **Hotels table** from the Navigation Pane to the top portion of the design grid. Drag the **HotelName field** in the Hotels table to the left of the Duration field column in the design grid. Delete the TripName field. Press **Delete**, remove the criteria from the Duration field, and then click **Run**. Save, and then close the query.

**2. Create a Multi-Table Query**

a. Click the **Create tab**, and then click **Query Design**. Double-click each table name in the Show Table dialog box.

b. Click **Close** in the Show Table dialog box. Double-click the following fields: **LastName**, **FirstName**, **BalanceDue**, **TripID**. Type **>= 2000** as criteria for BalanceDue. Click **Run**, click **Save**, and then type **Scheduled Trips-Balance Over 2000** as the name.

**3. Modify a Multi-Table Query**

a. Click **View**. Type **<=1500** in place of *>2000* as criteria for the BalanceDue field. Double-click the **DepartureDate field** to add it to the design grid. Type **<8/8/2011** as criteria for DepartureDate. Run the query.

b. Click the **File tab**, and then click **Save Object As**. Type **Balance Less than 1500 - Trips Prior to August 2011**. Click **OK**, click the **File tab**, and then click **View**. Sort the DepartureDate field as Ascending. Click **Run**. Save, and then close the query.