PLUG-IN

T8

Decision Making Using Access 2013

LEARNING OUTCOMES

1. Describe the steps for creating a form using the Form Wizard in Access.
2. Describe the steps for creating and saving Forms using Access.
3. Describe the steps to modify the properties of a form using Access.
4. Describe the steps for creating a report using the Report Wizard in Access.
5. Describe the steps to modify the properties of a report using Access.

Introduction

This plug-in focuses on the two functions of decision making using Access 2013: creating forms and creating reports. A *form* is nothing more than a graphical repre-sentation of a table. You can add, update, and delete records in your table by using a form. Although a form can be named differently from its corresponding table, they both still manipulate the same information and the same data. Hence, if you change a record in a form, it will be changed in the table as well.

A form is useful when you have numerous fields in a table. It allows you to see all the fields in one screen, whereas if you were in the table view (datasheet) you would have to keep scrolling to get to the field you desire.

A *report* is an effective way to present your data in a printed format. Because you have control over the size and appearance of everything on a report, you can display the information the way you want to see it.

Forms

An Access form is a window, similar to a dialog box, that contains a set of controls (such as labels, text boxes, and check boxes) to view, enter, or edit database information, typically one record at a time.

In a form, data are obtained directly from one or more tables or from data that have been extracted using a query. Although it is possible to directly enter and edit the information in tables in Datasheet View, a database usually includes a set of forms that can make entering and editing data considerably easier and can limit the fields that can be viewed or modified.

CREATING A FORM USING THE FORM WIZARD

Forms allow you to enter data one record at a time. Often, it is easier to enter data in a well-designed form rather than in a wide datasheet. You can create a form that has fields from more than one table or query. Like other wizards, the Form Wizard walks you step-by-step through the process of creating a form.

To create a form using the Form Wizard:

1. Open the file **T8_SlopesideBikes_Data.mdb** from the data file that accompanies this text.

2. Click the **Create** tab. Click **Form Wizard.**

3. Click the **Tables/Queries** drop-down arrow and select **Table: BIKE.**

4. Add all BIKE fields by clicking on the double right arrow (**>>**)**.** Click **Next** to go to the next step.

5. Select the **Columnar** form layout. Click **Next.**

6. Type in **BIKE FORM** for a form title.

7. Click **Finish** to open the form and begin entering data (see Figure T8.1).

Accessing Several Tables or Queries in a Form

When you select the fields for your form in the first Form Wizard dialog box, you can add fields from several tables or queries. To add fields from each table or query, select it in the **Tables/Queries** drop-down list and then use the buttons to move the fields you want to the **Selected Fields** list.

If you add fields from several forms or queries, the wizard will display one or two additional dialog boxes that were not shown in the previous section: one dialog box in which you specify the form or query by which you want to view your data (for example, if you selected fields from the CUSTOMER and the BIKE tables, you would choose to view your data either "by Customer" or "by Bike") and possibly another dialog box in which you select a layout for a subform. The choices you make determine the form's record source.

FIGURE T8.1

Create a Form by Using the Form Wizard

If your form includes fields from two tables that are related in a one-to-many relationship and if you selected to view your data by the primary table, the wizard will let you display the records from the related table in a subform contained within the form. As an alternative, the wizard will let you set up a linked form, which is a separate form that displays the related data and which you open by clicking a button on the main form.

On the other hand, if you chose to view your data by the related table in the one-to-many relationship, when the form displays a record in the related table, it will simply display the unique matching fields from the primary table along with the fields from the current record in the related table.

A form that accesses data from several tables or queries can be complex to design from scratch or to modify. However, if you create the form using the Form Wizard, almost everything is set up for you.

CREATING AND SAVING FORMS

To create a simple form in Access, you can use the form buttons available on the Create tab. You can create a basic form, split form, tabular form using multiple items, blank form, or PivotChart.

To create a form:

1. In the Navigation Pane, select the **CUSTOMER** table.

2. Click on the **Create** tab, and then click on the **Form** button (refer to Figure T8.2).

3. Access automatically creates a Columnar Form based on the CUSTOMER table you selected. Since the CUSTOMER table has a linked relationship to the RENTAL table, Access displays the RENTAL table contents associated with the CUSTOMER information.

4. Close the form by clicking the **Close** box in the upper-right corner.

5. Access will automatically prompt you to save the form. Save it as **CUSTOMER.**

FIGURE T8.2

Create a Form
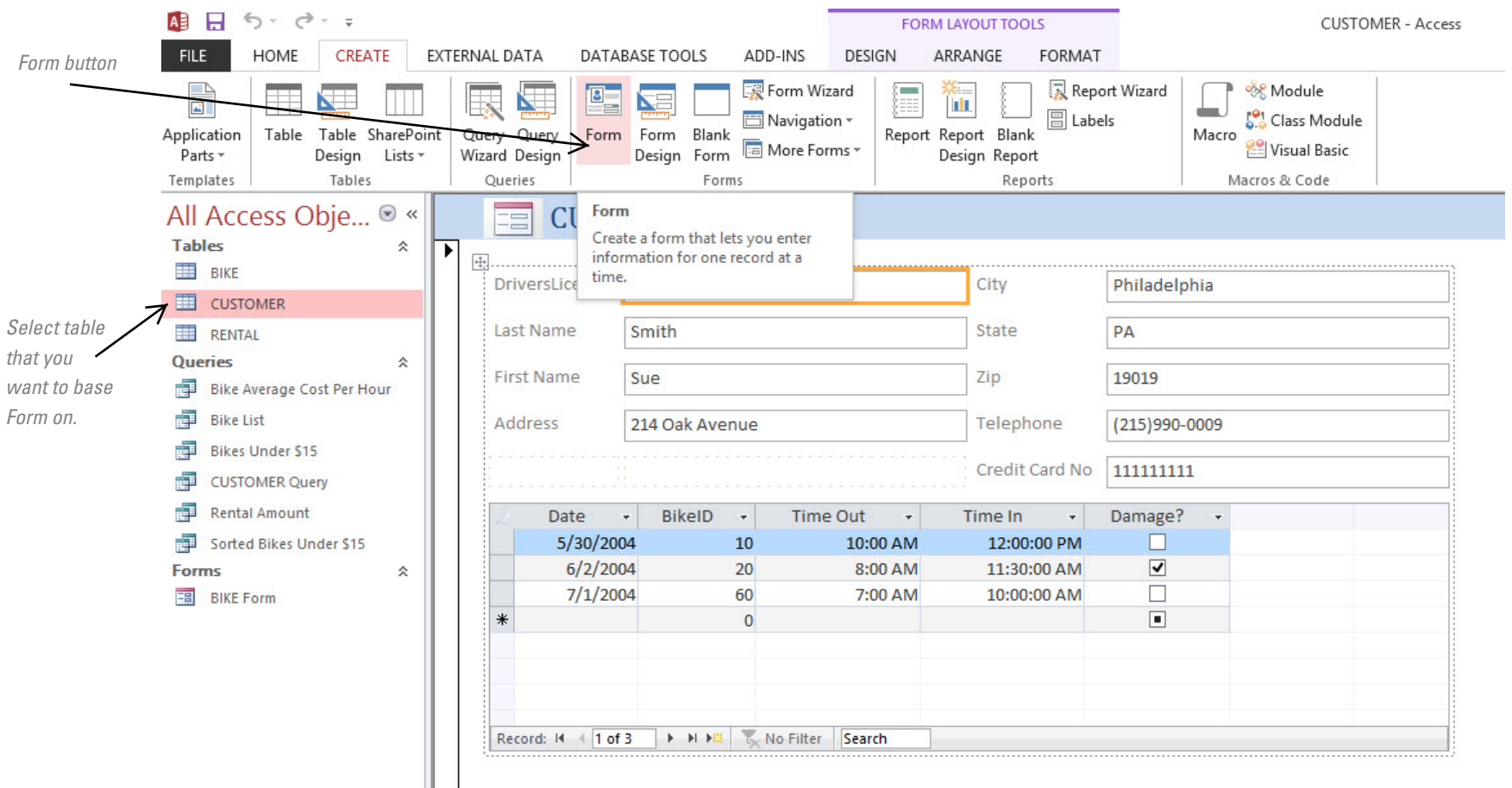
MODIFYING THE PROPERTIES OF A FORM

Once you have created a form, you can still change the way the form looks and functions. The *Format, Arrange, and Design* tabs allows you to change the form's graphic style. Opening the Property Sheet dialog box allows you to change other form properties.

MODIFYING SPECIFIC CONTROLS ON A FORM

Not all controls on your form may be of equal importance. You may want to modify the look of a specific control to make it stand out, or you may want to modify the control behavior. When designing forms, be careful not to overdesign. Too many different colors, styles, or behaviors can distract from accurate data entry.

To modify the properties of a specific control (refer to Figure T8.3):

1. Open the **BIKE FORM** in **Design View.**
2. Since the BIKE FORM you created using the wizard did not allow you to align the title of the form, you should do that.
3. Click the **Property Sheet** button on the **Design** tab.
4. Under the **Form Header,** select the **BIKE FORM** title object. Notice that there are handles around the object creating a box that is reddish in color.

FIGURE T8.3

Modify Form Properties

5. Drag the right-middle handle so that it is as wide as the rest of the form.
6. In the **Property Sheet** dialog box, click the **Format** tab.
7. Click the **Font Weight** property, and select **Bold** in the drop-down list.
8. Click the **Text Align** property, and select **Center** in the drop-down list.
9. Close the **Property Sheet** dialog box.
10. To view your changes, click on the **View** button and select **Form View.**
11. Close and save the form.

   Note: Common properties to modify are the use of scroll bars and growing or shrinking the size of the control based on data the user enters. If you turn off scroll bars, users can see only the data that fits within the specific control dimensions. If you turn on *Can Grow* or *Can Shrink,* the control area will grow and/or shrink to fit the data.

   Many formatting options are available from the shortcut menu (selecting a control, then right-click). You can change the background color, font color, and which special effect is applied to the control.

Reports

Reports are used primarily for printing selected database information. A report labels, groups, sorts, and summarizes the data it presents. Like a form, a report can display data directly from one or more tables or it can display the results of a query.

Using the Report Wizard

Like other wizards, the Report Wizard walks you step-by-step through the process of creating a report. Unlike forms, which are designed for on-screen data entry, reports are designed for print.
   To create a report using the Report Wizard:

1. Click the **Create** tab, and then click the **Report Wizard** button in the **Reports** group.
2. Click the **Tables/Queries** drop-down arrow. Select the **CUSTOMER** table and select all the fields *except* the Drivers License, Telephone, and Credit Card No. Then select the **RENTAL** table and select the **Date** field. Lastly, select the **BIKE** table and select the **Description** field.
3. Click **Next** to go to the next step. **Note:** If you selected fields from more than one table or query in the previous step, the second Report Wizard dialog box asks you to choose one table or query that will be used for grouping the information in the report, if possible.
4. The next step asks how you want to view the report. Double-click **BIKE.** Click **Next.**
5. Make **Date** the first grouping level. (**Note:** Use a grouping level to organize the data into subgroups by the value of a specific field.) Click **Next.**
6. Next, for sort order, specify **State** as the primary data sort. Click **Next.**
7. Select the **Stepped** report layout and **Landscape** orientation. Click **Next.**
8. Select the **Office** style for the report. Click **Next.**
9. Type in **Customer Rental by State Report** for the title and select **Preview the report.**
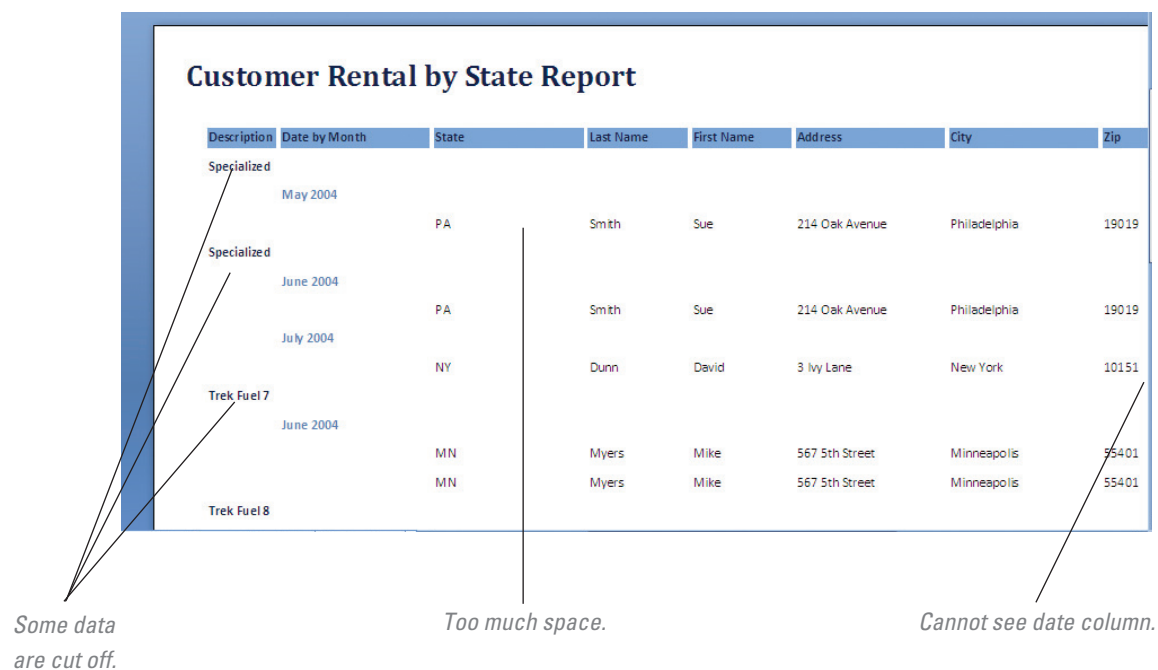10. Click **Finish.** Figure T8.6 displays the results.

Customer Rental by State Report

Description	Date by Month	State	Last Name	First Name	Address	City	Zip
Specialized							
	May 2004						
		PA	Smith	Sue	214 Oak Avenue	Philadelphia	19019
Specialized							
	June 2004						
		PA	Smith	Sue	214 Oak Avenue	Philadelphia	19019
	July 2004						
		NY	Dunn	David	3 Ivy Lane	New York	10151
Trek Fuel 7							
	June 2004						
		MN	Myers	Mike	567 5th Street	Minneapolis	55401
		MN	Myers	Mike	567 5th Street	Minneapolis	55401
Trek Fuel 8							

Some data are cut off.   *Too much space.*   *Cannot see date column.*

MODIFYING THE REPORT DESIGN

Once you create a report, you can modify the report's design to make it more visually attractive. As with forms, be careful not to overdesign your report. A poorly designed report can distract from the information being presented. To modify the design, you must have the report open in Design View.

To modify the report design:

1. Preview the report first. Double-click the **Customer Rental by State Report** in the Navigation Pane. Notice that the columns and data do not align correctly, some columns are much bigger than they need to be, and we can't even see the date field (refer to Figure T8.6).

2. Switch to **Design View** by clicking the **View** button (under the **Home** tab).

3. Click the **Description** control under the **Bike_Id Header** section, and then **drag** the sizing **right handle** to increase the width of the control box (this will allow more characters to be visible in the report). You can also select **Size** from the **Format** menu. Select **To Fit** to automatically resize the label or control to fit your data.

4. Make sure that you can see the **Date** column control. You may have to adjust the width of that control. Select the **State** column heading and resize that control to have fewer spaces.

5. Switch to **Report View** via the **View** toolbar button to see your changes. You may have to toggle back and forth from the Design View to the Report View several times before you get the results you desire. Figure T8.7 displays the modified report.

Note: Change the graphic style of the report by clicking the **Arrange** tab, then clicking the **AutoFormat** button.

Customer Rental by State Report

Description	Date by Month	State	Last Name	First Name	Address	City	Zip	Date
Specialized Rockhopper								
	May 2004							
		PA	Smith	Sue	214 Oak Avenue	Philadelphia	19019	5/30/2004
Specialized Rockhopper								
	June 2004							
		PA	Smith	Sue	214 Oak Avenue	Philadelphia	19019	6/2/2004
	July 2004							
		NY	Dunn	David	3 Ivy Lane	New York	10151	7/5/2004
Trek Fuel 70								
	June 2004							
		MN	Myers	Mike	567 5th Street	Minneapolis	55401	6/29/2004
		MN	Myers	Mike	567 5th Street	Minneapolis	55401	6/30/2004
Trek Fuel 80								
	July 2004							
		NJ	Elliott	Raymond	7890 Fishpike Lane	Newark	07101	7/5/2004
		NJ	Elliott	Raymond	7890 Fishpike Lane	Newark	07101	7/7/2004
Trek Fuel 80								
	July 2004							
		LA	Lapierre	Lynne	819 River Road	New Orleans	70117	7/11/2004
		LA	Lapierre	Lynne	819 River Road	New Orleans	70117	7/12/2004

Data are aligned, viewable, and printable.

CHANGING MARGINS AND PAGE ORIENTATION FOR REPORTS

The default page orientation for a report is *portrait*. This means the height of the page is greater than the width. You may want to change this orientation to *landscape* to accommodate multiple columns of data so they fit on one page. *Margins* are the blank spaces at the top, bottom, left, and right of a report. By adjusting the page margins, you can control the number of records printed on each page. Use the dialog box to adjust margins and page orientation for your reports.

To change the margins for a report:

1. Open the report in **Design View.**
2. Click the **Page Setup** tab, and then click the **Page Setup** button in the **Page Layout** group.
3. Select the **Print Options** tab in the **Page Setup** dialog box.
4. Change the values for the top, bottom, left, or right margin.
5. Click **OK.**

To change the page orientation for a report:

1. Open the report in **Design View.**
2. Click the **Page Setup** tab, and then click the **Page Setup** button.
3. Select the **Page** tab in the **Page Setup** dialog box. Click the radio button for **Portrait** or **Landscape** orientation.
4. Click **OK.**

To have Microsoft Access 2013 create a form according to your specifications, select the Form Wizard option. The Form Wizard lets you choose the specific fields to include, and these can belong to one or more tables or queries. To have Access quickly create a form that has a particular configuration (Columnar, Tabular, Datasheet, PivotTable, or PivotChart), based on the record source table or query you select in the drop-down list, select one of the five AutoForm options. Access will immediately create the form, including all fields from the record source and using default options without asking for your specifications.

To have Access help you design a report, select the Report Wizard option. To use default settings to quickly create a report based on a single table or query, with a columnar or tabular layout, select the AutoReport: Columnar or the AutoReport: Tabular option. Either report will include all the fields belonging to the record source table or query that you select in the drop-down list at the bottom of the New Report dialog box.

✳ MAKING BUSINESS DECISIONS

1. WasteNot Recycling

WasteNot Recycling, introduced in Plug-In T6 and reintroduced in T7, picks up recyclables from homeowners in Boulder, Colorado. The owners of WasteNot Recycling have asked you to assist with creating a form and several reports. They have provided you with an updated database file, **T8_WasteNotRecycling_Data.mdb.** Specifically they want you to do the following:

1. Create a form that will allow the owners to enter data into the CUSTOMER and the CUSTOMER RECORD tables. They have left the design (i.e., aesthetics) up to you. However, they have asked that you locate an appropriate graphic to include on the form. You will want to use the Internet to find such a graphic. Make sure you align all the controls and adjust the size of all the controls to fit the data. Save the form as **Customers.**

2. Create a report that groups the records by customer. The report should include data on the customer first and last name, service date of pickup, weight of paper, and weight of other. The report should be sorted by customer last name. You will need to create a subtotal for the weights for each customer. Create a report title called **Customer Weights.**

2. It's A Grind Coffee Shop

It's A Grind Coffee Shop, introduced in Plug-In T6, is an Oakland, California, neighborhood coffee shop. Kate Fitzgerald, the proprietor, has decided that she needs a form and a few reports created to help her purchase new books for her coffee shop.

Kate has provided you with an updated database file, **T8_ItsAGrindCoffee_Data.mdb.** Specifically, Kate wants you to:

1. Create a form that will allow Kate to add new books to the BOOK table. Kate has asked you to use a Columnar layout and the Sumi Painting style. Kate has given you her logo to add to the form, **ItsAGrindImage.jpg.** Position the logo in the top-left corner. Save the form as **Books.**

2. Create a report that groups the records by author. Include only the author from the AUTHOR table, and book title, year, and condition from the BOOK table. Sort the report by book title. Create a title labeled **Current Authors;** center the title on the report. Set the label properties to 12 point, bold, italic. Save the report as **Books By Author.**

3. Create a report using the publisher name, book title, year, and author name. Group the report on publisher name and sort on the year the book was published. Create a report title of **Books By Publisher.** Align the columns evenly and use a professional-looking font style and layout. Save the report as **Publishers.**

3. TechIT Seminars

TechIT Seminars is an organization of independent seminar facilitators who provide onsite technical training to large businesses around the world. The facilitators build curriculum that is marketed by TechIT. TechIT books the seminars, arranges facilities, enrolls participants, and collects the money. While the facilitators are not employees of TechIT, they provide the service that is marketed, and their skills and schedules need to be available to all TechIT offices. Deborah Wallbridge has been charged with tracking facilitators and their classification. She has asked you to help develop a form and a few reports to assist in scheduling seminars.

1. Use the **T8_TechITSeminars_Data.mdb** file.
2. Create a data entry form for the FACILITATOR table. Set the form background color to a blue color (hue). Organize and align all controls for effective use and full data display. For the phone data, use the Phone input mask. Save the form as **Facilitators Form.**
3. Use the ENROLLMENT table to create a report listing the students currently enrolled in each seminar. The report field order is Seminar ID, Last Name, First Name, Student Phone, and Student Number. Adjust all controls to display all of their contents. Adjust the color and content of the column headings as shown in Figure T8.8. Align all controls.

FIGURE T8.8

Students by Seminar Report

Students By Seminar Report

Seminar ID	Last Name	First Name	Student Phone	Student Number
TL003				
	Elynuik	Kerry	539-556-3223	115
	Ray	Maria	217-226-4415	135
	Ross	Wilbert	395-444-2247	244
	Timmerman	Henry	123-225-8543	229
	Tsuhara	Gordon	7-1-655-4487	124
	Weinstein	Albert	120-22-547-6684	108
TL010				
	Malone	Sean	894-544-6637	311
	Norgaard	Max	315-554-7787	331
	Rodrigues	Marc	938-224-1135	249
	Tarchuk	Sapphire	217-544-2014	131
	Van Zandt	Willem	439-455-3112	177
TR101				
	Dhaliwal	Frank	452-332-4125	250
	Habib	Akram	315-335-4414	186
	Harrison	Tina	748-441-3352	109
	Kowalski	Byron	976-255-3177	291
	Mahal	Balinder	543-337-8541	308
	McMahon	Lavon	315-225-6634	330
	Nadeau	Pierre	675-441-5511	325
	Oakes	Judy	603-221-4473	255
	Pittman	Dale	43-848-332-6674	455
	Pryor	Deanna	46-438-378-6767	166
	Quinn	Dwayne	315-224-3581	283
	Reyes	Herbert	72-334-6142	208
	Weymouth	Corey	303-335-4712	181

Add a gray line above and below the column headings. Use Sorting and Grouping to sort by Seminar ID, Last Name, and First Name. Place the report date, time, and Page XX of XX in the Page Footer. Format the date and time to long format. Save the report as **Students By Seminar Report.**

4. Scale Classic Cars

Johnny Krol, introduced in Plug-In T7, runs a body shop that specializes in restoring classic cars. Johnny owns three classics and began collecting scale models when his wife put her foot down and said no to building more garage space for his cars. Johnny has decided that he needs a form and a few reports created to help in identifying the buying habits of his customers. Johnny has provided you with an updated database file, **T8_ClassicCars_Data.mdb.**
Specifically, Johnny wants you to:

1. Create a form that will allow Johnny to enter new classic cars and update existing records. The form should use a Columnar format and the Sandstone style. Save the form as **Catalog.**

2. Create a report listing classic cars grouped by their make. The report should display all fields from the CATALOG table, sort by model name, and calculate the average price for each make. Use the Formal style. Save the report as **Cars By Model.**