
Database Concepts

8th Edition

David M. Kroenke • David J. Auer

Scott L. Vandenberg • Robert C. Yoder

Online Appendix H

The Access Workbench – Section H
Microsoft Access 2016 Switchboards



VP Editorial Director: Andrew Gilfillan
Senior Portfolio Manager: Samantha Lewis
Content Development Team Lead: Laura Burgess
Program Monitor: Ann Pulido/SPi Global
Editorial Assistant: Madeline Houpt
Product Marketing Manager: Kaylee Carlson
Project Manager: Katrina Ostler/Cenveo® Publisher Services
Text Designer: Cenveo® Publisher Services

Interior design: Stock-Asso/Shutterstock; Faysal Shutterstock
Cover Designer: Brian Malloy/Cenveo® Publisher Services
Cover Art: Artwork by Donna R. Auer
Full-Service Project Management: Cenveo® Publisher Services
Composition: Cenveo® Publisher Services
Printer/Binder: Courier/Kendallville
Cover Printer: Lehigh-Phoenix Color/Hagerstown
Text Font: 10/12 Simoncini Garamond Std.

Credits and acknowledgments borrowed from other sources and reproduced, with permission, in this textbook appear on the appropriate page within text.

Microsoft and/or its respective suppliers make no representations about the suitability of the information contained in the documents and related graphics published as part of the services for any purpose. All such documents and related graphics are provided "as is" without warranty of any kind. Microsoft and/or its respective suppliers hereby disclaim all warranties and conditions with regard to this information, including all warranties and conditions of merchantability, whether express, implied or statutory, fitness for a particular purpose, title and non-infringement. In no event shall Microsoft and/or its respective suppliers be liable for any special, indirect or consequential damages or any damages whatsoever resulting from loss of use, data or profits, whether in an action of contract, negligence or other tortious action, arising out of or in connection with the use or performance of information available from the services.

The documents and related graphics contained herein could include technical inaccuracies or typographical errors. Changes are periodically added to the information herein. Microsoft and/or its respective suppliers may make improvements and/or changes in the product(s) and/or the program(s) described herein at any time. Partial screen shots may be viewed in full within the software version specified.

Microsoft®, Windows®, and Microsoft Office® are registered trademarks of the Microsoft Corporation in the U.S.A. and other countries. This book is not sponsored or endorsed by or affiliated with the Microsoft Corporation.

MySQL®, the MySQL Command Line Client®, the MySQL Workbench®, and the MySQL Connector/ODBC® are registered trademarks of Sun Microsystems, Inc./Oracle Corporation. Screenshots and icons reprinted with permission of Oracle Corporation. This book is not sponsored or endorsed by or affiliated with Oracle Corporation.

Oracle Database XE 2016 by Oracle Corporation. Reprinted with permission.

PHP is copyright The PHP Group 1999–2012, and is used under the terms of the PHP Public License v3.01 available at http://www.php.net/license/3_01.txt. This book is not sponsored or endorsed by or affiliated with The PHP Group.

Copyright © 2017, 2015, 2013, 2011 by Pearson Education, Inc., 221 River Street, Hoboken, New Jersey 07030. All rights reserved. Manufactured in the United States of America. This publication is protected by Copyright, and permission should be obtained from the publisher prior to any prohibited reproduction, storage in a retrieval system, or transmission in any form or by any means, electronic, mechanical, photocopying, recording, or likewise. To obtain permission(s) to use material from this work, please submit a written request to Pearson Education, Inc., Permissions Department, 221 River Street, Hoboken, New Jersey 07030.

Many of the designations by manufacturers and sellers to distinguish their products are claimed as trademarks. Where those designations appear in this book, and the publisher was aware of a trademark claim, the designations have been printed in initial caps or all caps.

Library of Congress Cataloging-in-Publication Data

Kroenke, David M., 1948- author. | Auer, David J., author.
 Database concepts / David M. Kroenke, David J. Auer, Western
 Washington University, Scott L. Vandenberg, Siena College, Robert C.
 Yoder, Siena College.
 Eighth edition. | Hoboken, New Jersey : Pearson, [2017] |
 Includes index.
 LCCN 2016048321 | ISBN 013460153X | ISBN 9780134601533
 LCSH: Database management. | Relational databases.
 LCC QA76.9.D3 K736 2017 | DDC 005.74--dc23
 LC record available at <https://lccn.loc.gov/2016048321>

Appendix Objective:

- Learn how to create Microsoft Access 2016 switchboards

What Is the Purpose of This Appendix?

At the end of Chapter 4's section of "The Access Workbench," we stated that:

Most users would find working with Microsoft Access 2016 database applications at the level of detail that we have been using to be intimidating. Users want a simple way to access forms (so that they can input data) and reports (so that they can view and print them). They really don't want all the complexity of tables, views, and relationships. This is particularly true when prototyping applications—users want to see what the application can do, not how it does it!¹

In Microsoft Access 2016, we can build a **switchboard** that will provide this functionality. A switchboard is simply a specialized Microsoft Access form that provides a way for the user to easily navigate the application with a button-based menu system. An example for our WMCRM database is shown in Figure AW-H-1—this figure duplicates the switchboard shown in Figure AW-4-27. This appendix provides an introductory discussion of Microsoft Access switchboards and describes how to create them.

¹ Chapter 4, page 307.

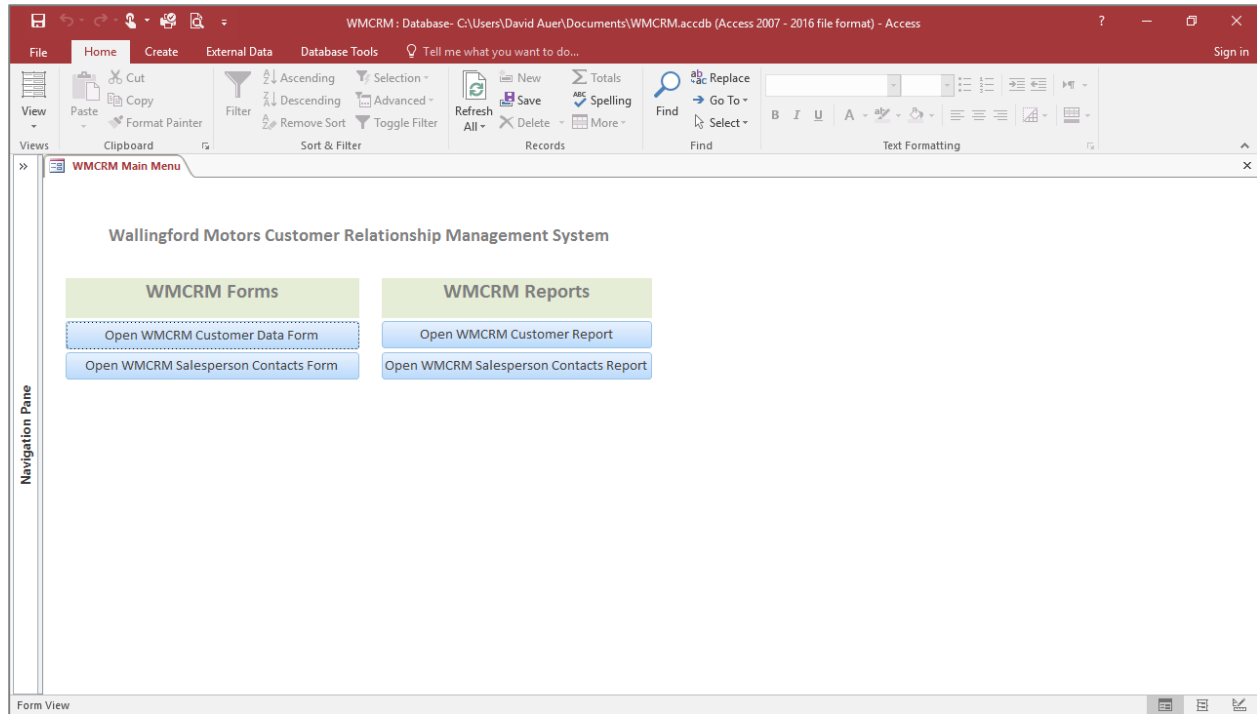


Figure AW-H-1 — The Microsoft Access 2016 Switchboard for the WMCRM

What Will This Appendix Teach Me?

As its title implies, this appendix is designed to get you started using Microsoft Access 2016 switchboards so that you can create switchboards of Microsoft Access database applications.

What Won't This Appendix Teach Me?

The material in this appendix does not go beyond what is necessary to get you started using Microsoft Access 2016 switchboards. There are many additional topics about Microsoft Access 2016 switchboards that we do not cover in Database Concepts (8th edition) and this appendix. Consult the Microsoft Access 2016 Help systems and documentation for more information about Microsoft Access 2016 switchboards.

Working with Microsoft Access Switchboards

We will start by making another copy of our basic WMCRM database, and then create a switchboard to function as a main menu for the CRM application. Since this appendix is intended to be used immediately after you have completed working on Chapter 4's section of "The Access Workbench," we are starting with the WMCRM.accdb as it exists at the end of that section. Here are the steps to create a database named WMCRM-AW04-v03.accdb.

Copying the WMCRM.accdb Database:

1. Select **Start | File Explorer | Documents** to open the My Documents library.
2. Right-click the **WMCRM.accdb** file object to display the shortcut menu, and then click **Copy**.
3. Right-click anywhere in the empty area of the Documents library window to display the shortcut menu and then click **Paste**. A file object named **WMCRM - Copy.accdb** appears in the Documents library window.
4. Right-click the **WMCRM - Copy.accdb** file object to display the shortcut menu, and then click **Rename**.
5. Edit the file name to read **WMCRM-AW04-v03.accdb**, and then press the **Enter** key.

Now we will build a switchboard for use with this database file. The goal is a switchboard that will ultimately look like the one shown in Figure AW-H-1. To do this, we start by creating a blank form.

Note that in Figure AW-H-1, the final form is shown in a widescreen display setting of 1280 x 786 pixels. Because of the large number of callouts that we will need to use in the figures in this appendix, we will use a screen display setting of 1024 x 786 pixels for our screenshots. We will switch back to the 1280 x 786 format at the end of the appendix. ***You do not need to do this—leave your screen resolution as it is.*** You will still find every control you need as we go along.

Creating a Blank Form:

1. Start Microsoft Access 2016.
2. If the File command tab is not selected, click the **File** command tab to display the Backstage view, and then click the **Open** button. In the Open page, click the **Browse** button, browse to the **WMCRM-AW04-v03.accdb** file, click the file name to highlight it, and then click the **Open** button.
3. The **Security Warning** bar appears with the database. Click the Security Warning bar **Enable Content** button.
4. Click the **Create** command tab.
5. Click the **Blank Form** button in the Forms group. A blank form labeled Form1 is displayed, as shown in Figure AW-H-2. Note the blank Field List pane; the **Form Layout Tools contextual command tab**, which contains the **Design command tab** (which is active and displayed); the **Arrange command tab**; and the **Format command tab** that are displayed.

Now we need to modify some of the property settings for the form. For example, note that in Figure AW-H-2 the form has a set of record navigation buttons. These are not needed (indeed, they are useless) in switchboard, so we need to disable the display of these buttons for the form.

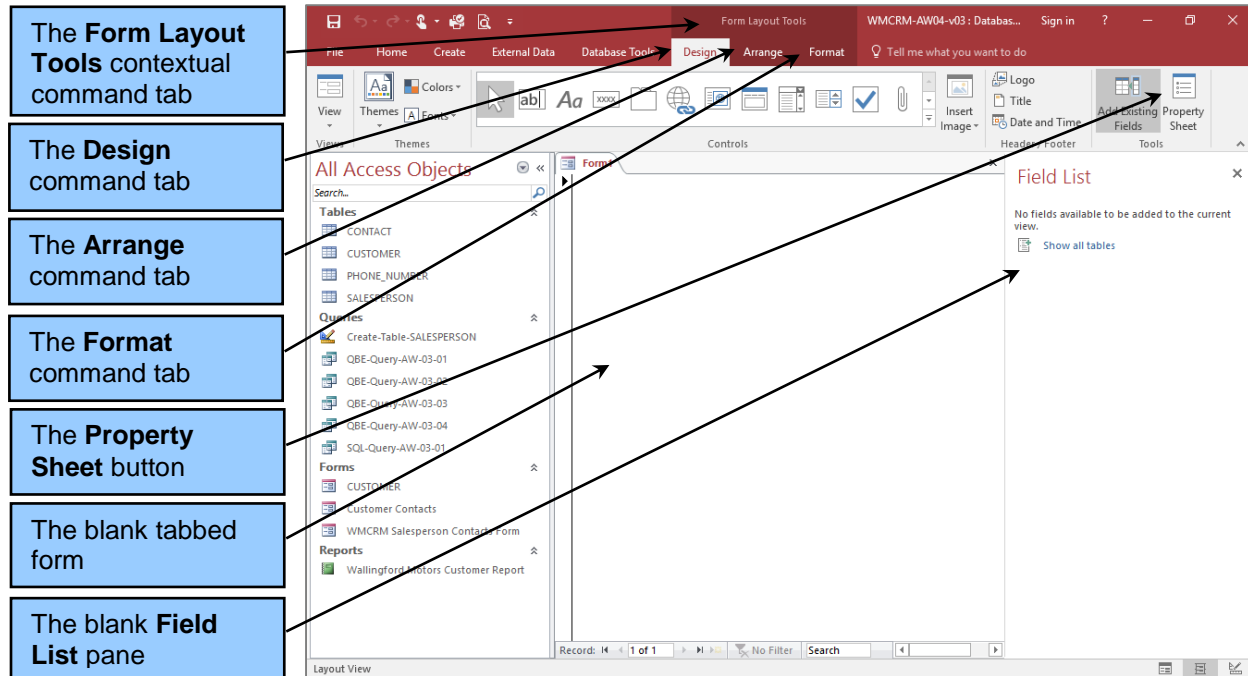


Figure AW-H-2 — The Blank Form

Modifying Property Sheet Settings for a Form:

1. Click the **Property Sheet** button shown in Figure AW-H-2. The Property Sheet for the form is displayed, as shown in Figure AW-H-3, with the All tab settings displayed.
2. Most of the property settings are correct, but three need to be changed. In order to change these settings, however, the form must be in Design view. Click the **Views drop-down list** button, and then select **Design View**. Click the **Design** command tab to display the Design command groups. The form is now displayed in Design View, as shown in Figure AW-H-4.
3. Click the **square button** on the upper left of the form, as shown in Figure AW-H-4, to select the entire form.

■ **NOTE** : The *entire* form needs to be selected. This is the default when you select Design view, but *if* you somehow select just a part of the form, the Property Sheet settings display will change. To select or re-select the entire form, click the square button on the upper-left corner of the form, as shown in Figure AW-H-4.
3. As shown in Figure AW-H-4, change the **Allow Layout View** property setting from Yes to **No** using the property drop-down list.
4. Similarly, change the **Record Selectors** property setting from Yes to **No** using the property drop-down list.
5. Finally, change the **Navigation Buttons** property setting from Yes to **No** using the property drop-down list.

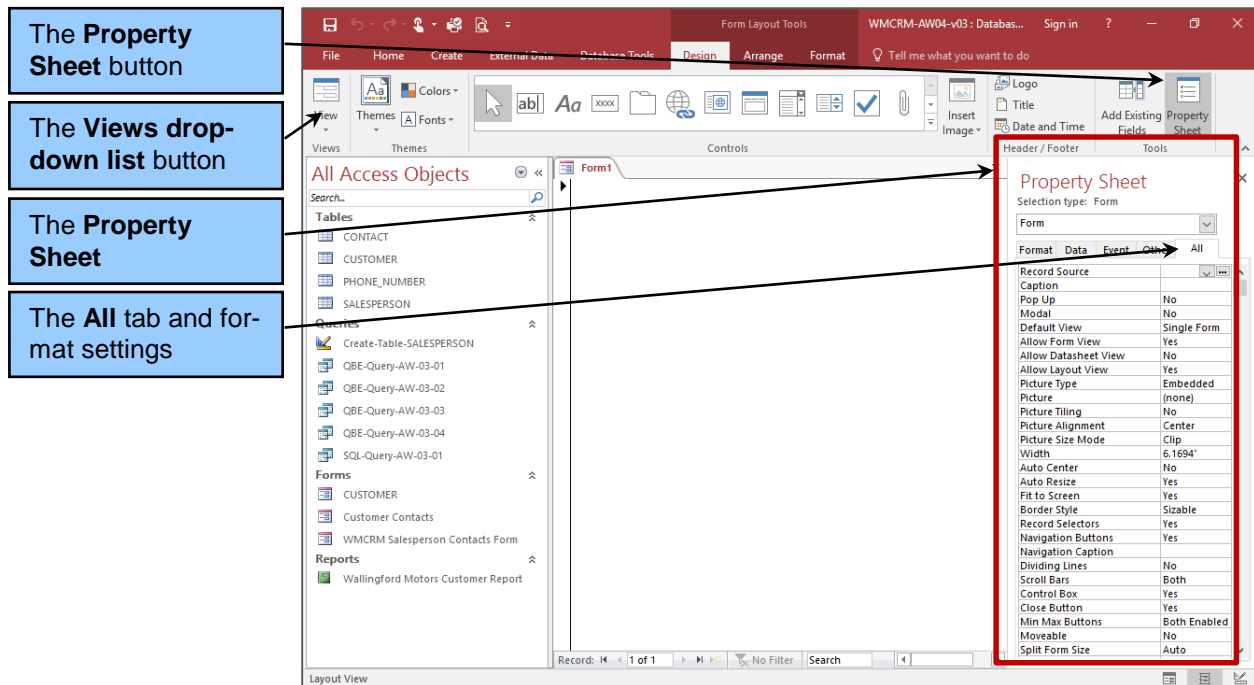


Figure AW-H-3 — The Blank Form with Property Sheet

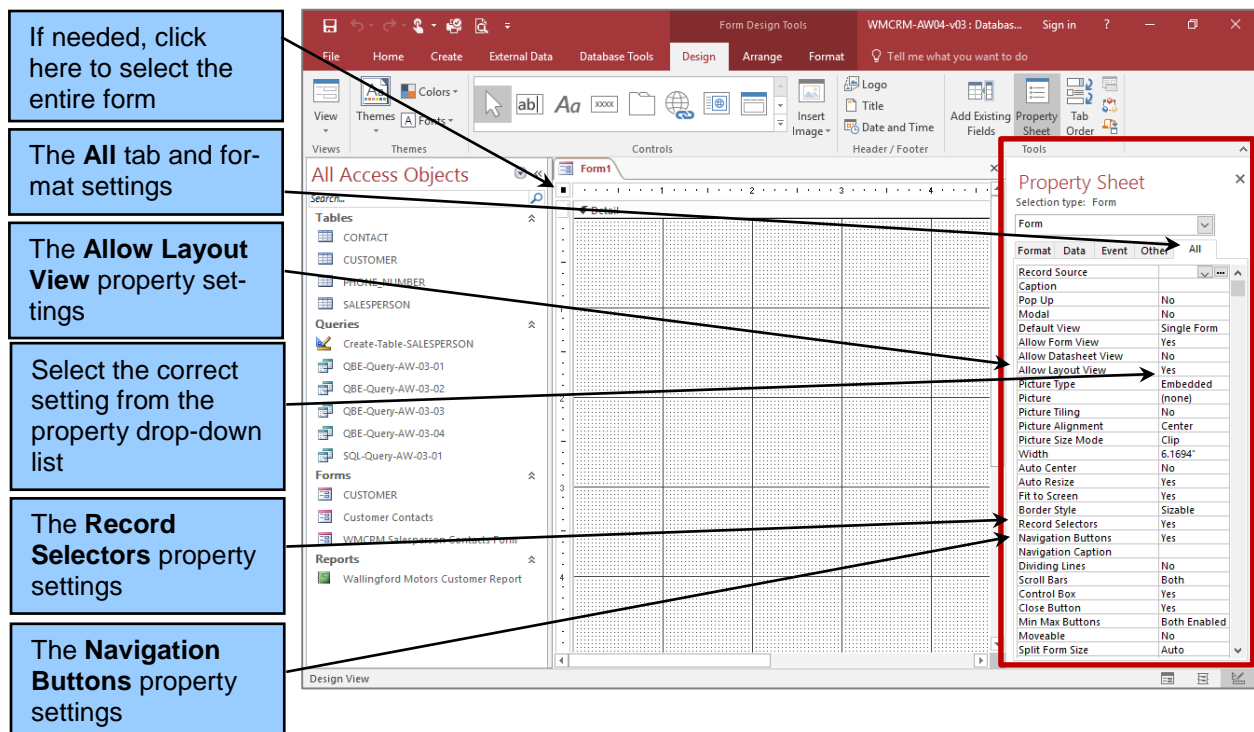


Figure AW-H-4 — The Form in Design View with Original Property Settings

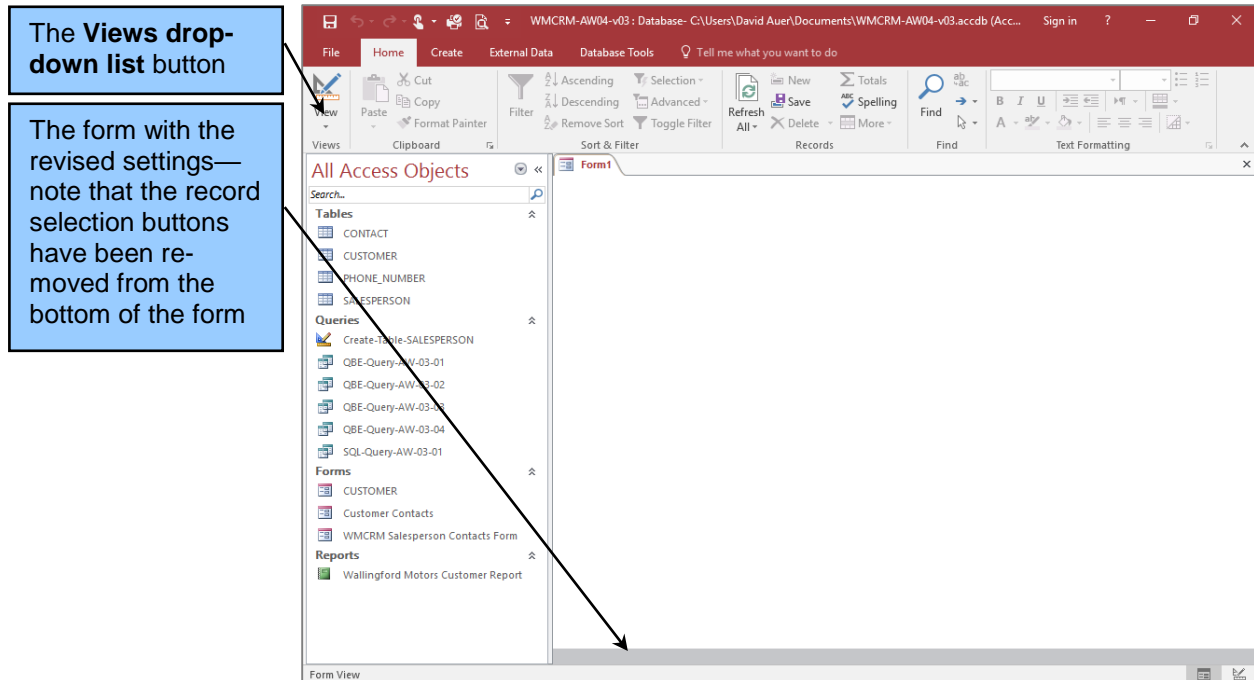


Figure AW-H-5 — The Form with Revised Settings

6. Click the **Views drop-down list** button, and then select **Form View**. The form in Form view is displayed, as shown in Figure AW-H-5.
5. Note that the three revised settings are in effect, and the record navigation buttons are no longer visible.

Now that we have the correct property settings, we can build the switchboard itself. We will start by adding a label.

Adding a Label to a Switchboard Form:

1. Click the **Views drop-down list** button, and then select **Design View**.
2. Minimize the Navigation Pane (use the << button on the top-right corner of the pane) to allow more of the form itself to be displayed. The form in Design view is now displayed as shown in Figure AW-H-6. Note the drag-and-drop controls available via the buttons in the **Controls command group**.
3. Drag and drop the right margin of the form so that it is 6.75 inches wide, as shown in Figure AW-H-6. Note that you can actually choose whatever width is appropriate.
4. Click the **Label** button. Click and drag in the form, and create the label area shown in Figure AW-H-7.
5. In the label area, type the text **Wallingford Motors Customer Relationship Management System**, as shown in Figure AW-H-8.
6. Click the small square button that selects the entire form, and then click the label area to select and then highlight the label text.

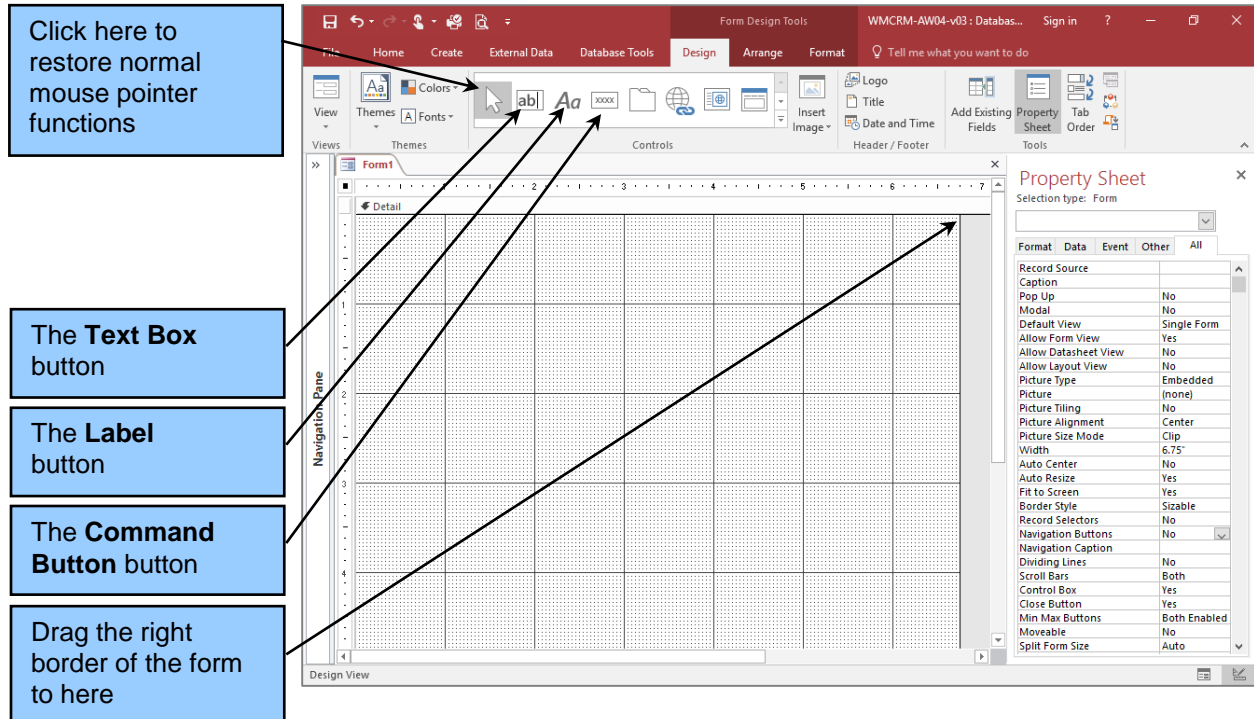


Figure AW-H-6 — The Expanded Form in Design View

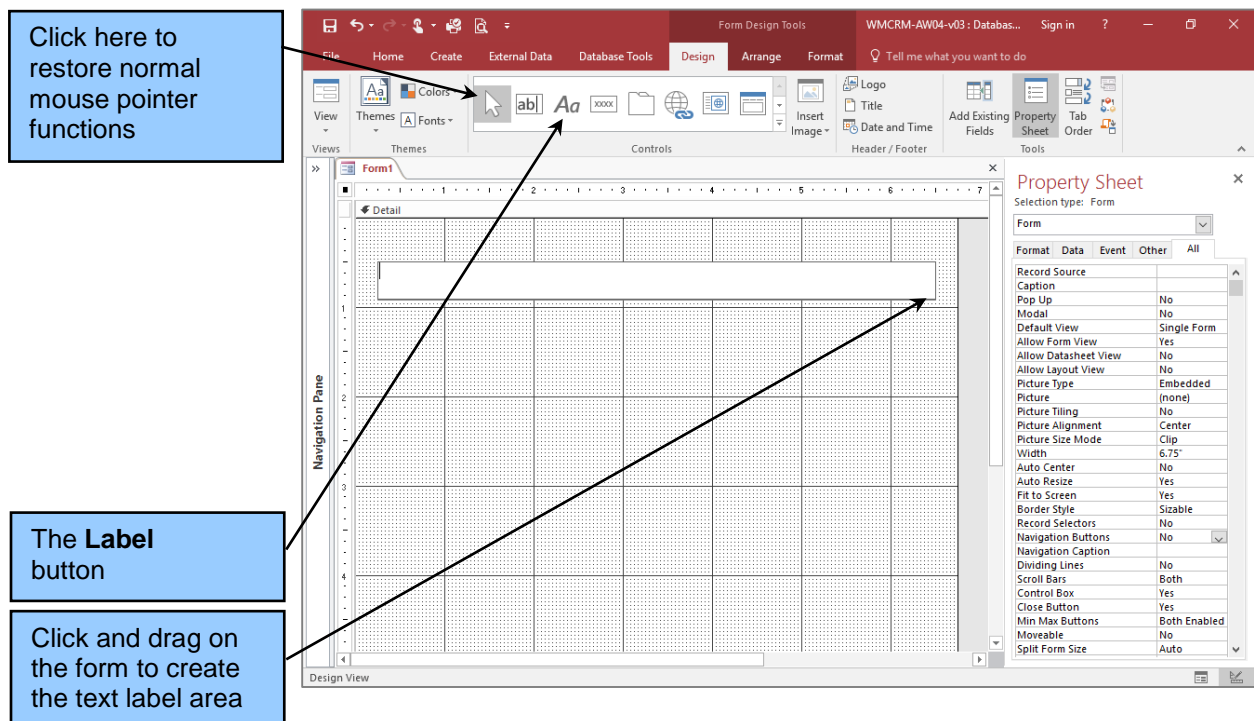


Figure AW-H-7 — Adding a Label to the Form

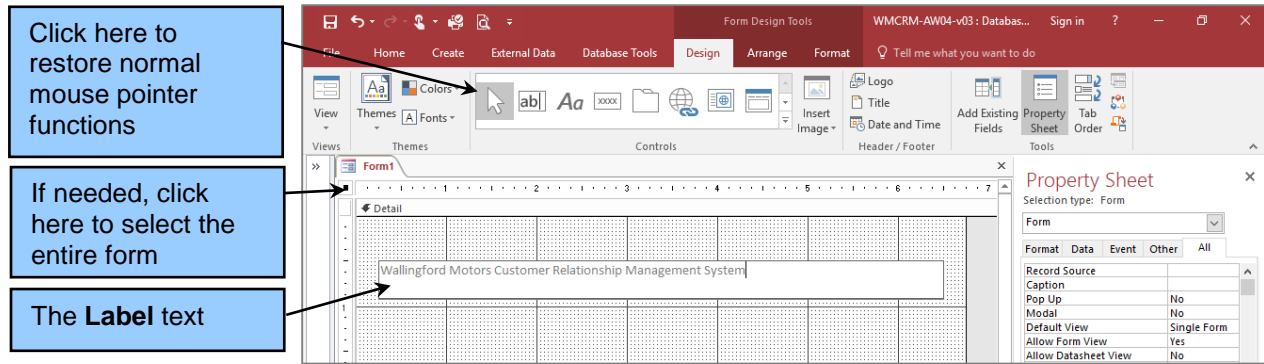


Figure AW-H-8 — The Label Text

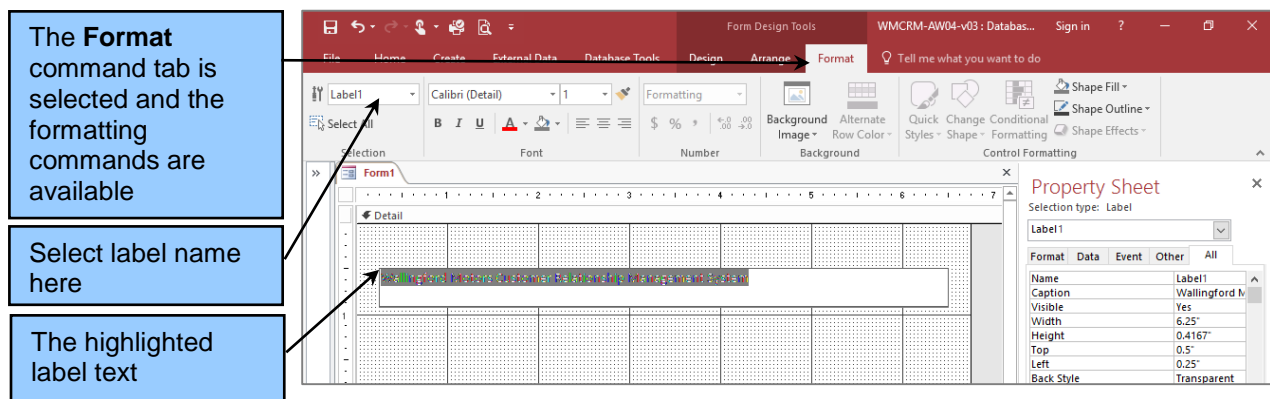


Figure AW-H-9 — Formatting the Label Text

6. Click the **Format** command tab. Highlight the label text. The label text can now be formatted, as shown in Figure AW-H-9.
7. Using the formatting controls of the Format command tab, format the label text as a font size of **14 pts.**, **bold**, and **centered**.
8. Click the **Save** button on the Quick Access Toolbar to display the Save As dialog box. Name and save the form as **WCMRM Main Menu**.
9. Click the **Home command tab**, and select **Form View**. The form is now displayed (in 1280 x 786-pixel format) as shown in Figure AW-H-10.

To complete our survey of basic form controls, we will add a command button to the WCMRM Main Menu.

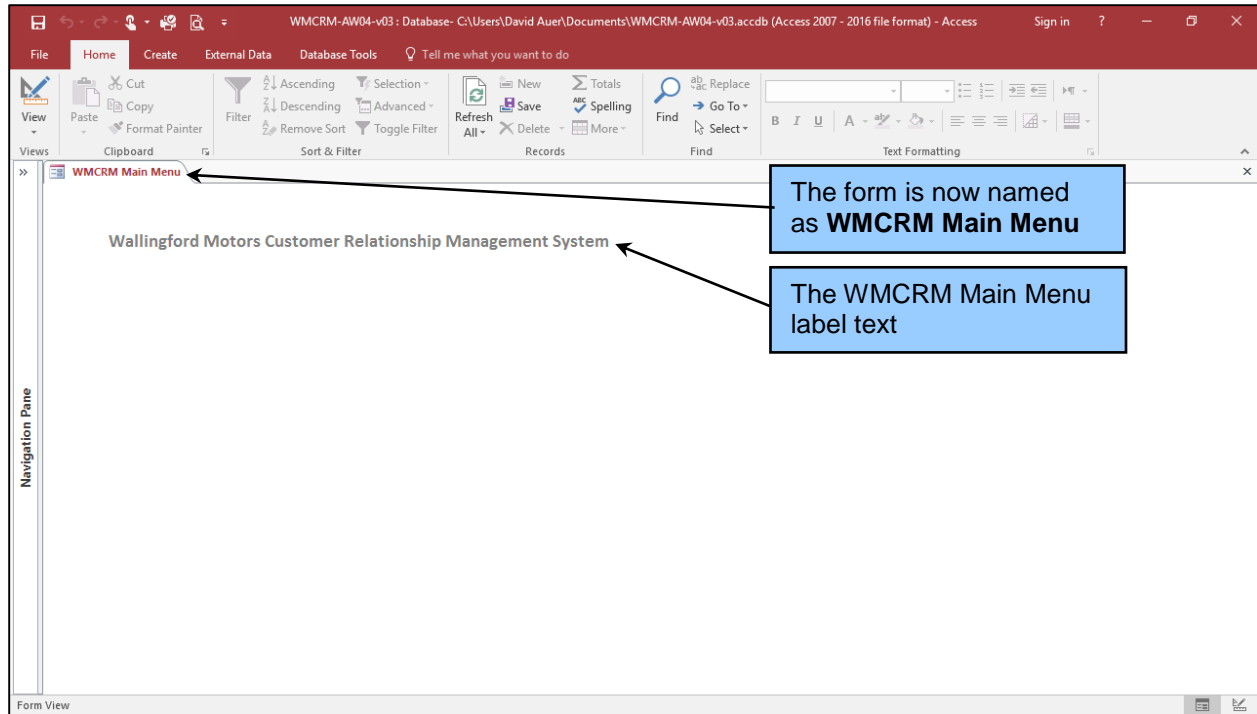


Figure AW-H-10 — The WMCRM Main Menu with Label Text

Additional Formatting for Text Labels on a Switchboard Form:

1. Click the **View drop-down list** button, and then select **Design View**.
2. If needed, minimize the Navigation Pane to allow more of the form itself to be displayed.
3. Click the **Label** button. Click and drag in the form, and create the text box area shown in Figure AW-H-11.
4. In the label text area, type the text **WMCRM Forms**.
5. Click the **Format** command tab. Select the correct label name in the label name drop-down list, and highlight the label text. The label text can now be formatted.
6. Using the formatting controls, format the label text as a font size of **16 pts.**, **bold**, and **centered**. Select the shade of olive green as the background color for the text box, as shown in Figure AW-H-12.

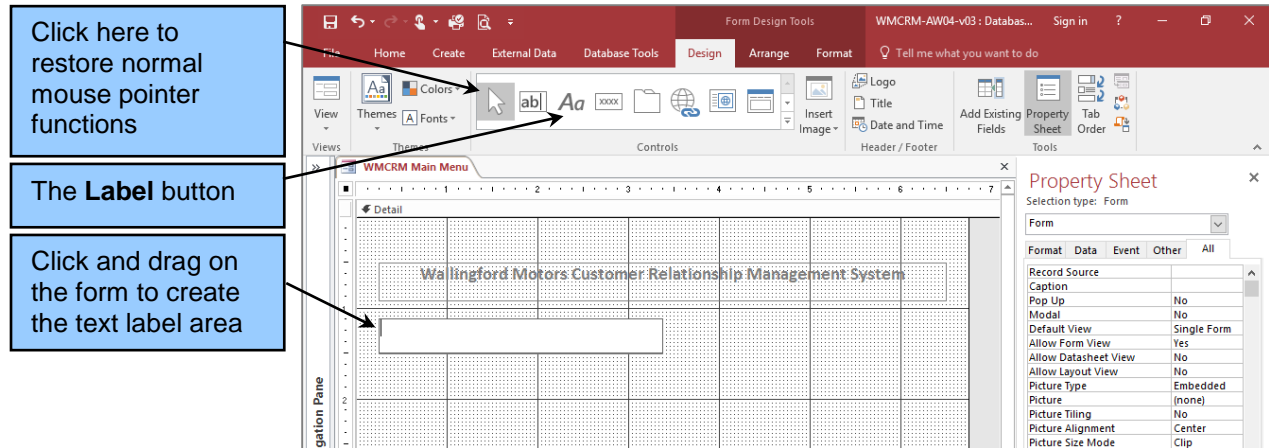


Figure AW-H-11 — Adding a Second Label

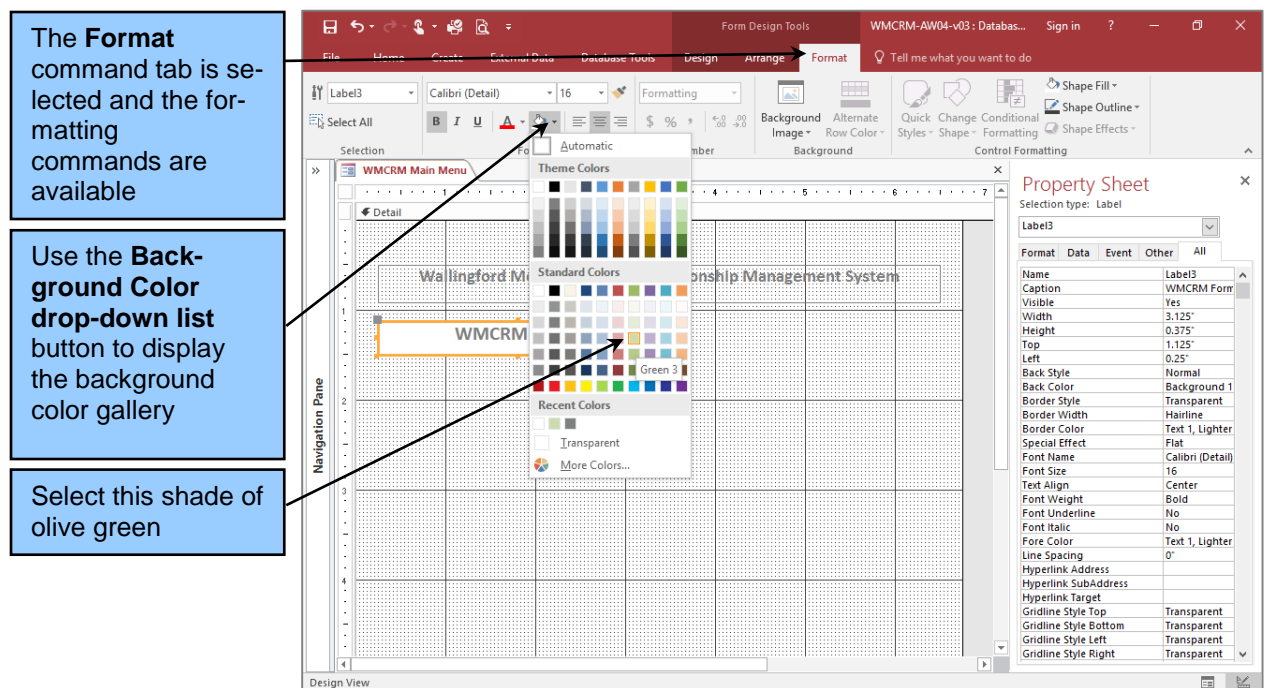


Figure AW-H-12 — Formatting the Second Label

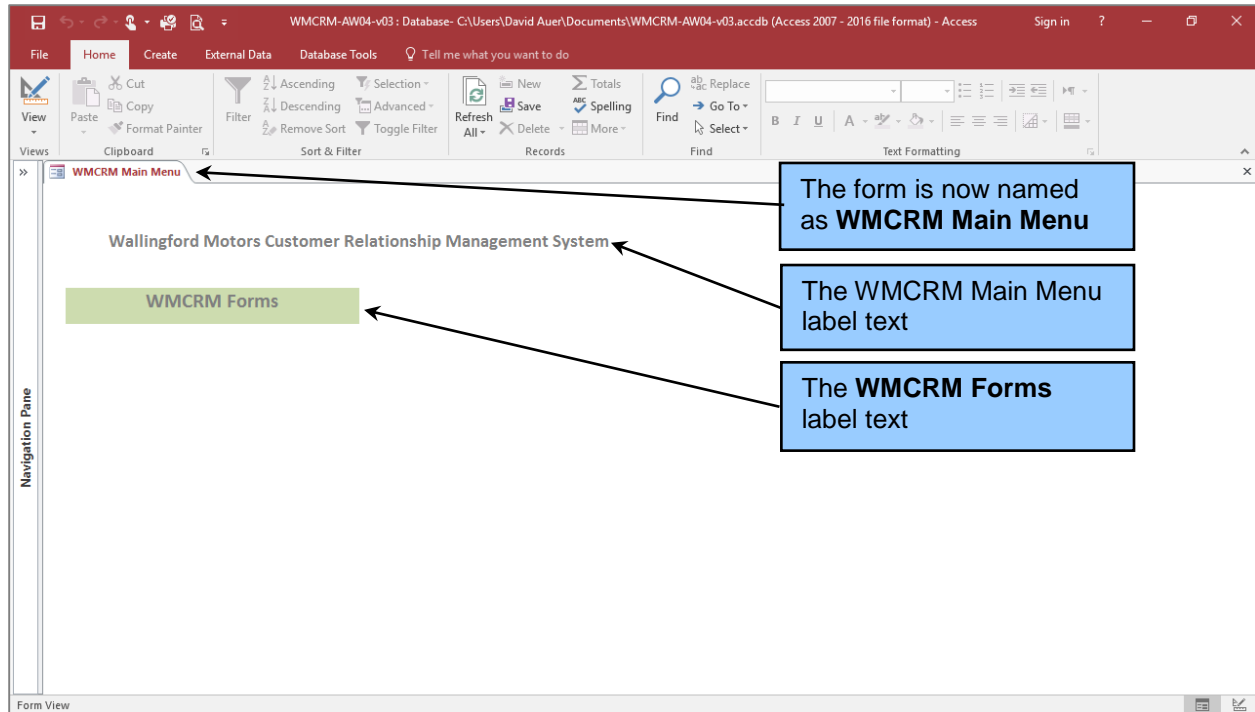


Figure AW-H-13 — The WCMCRM Main Menu with the Additional Label

7. Click the **Save** button on the Quick Access Toolbar to save the new additions to the form.
8. Click the **Home command tab**, and select **Form View**. The form is now displayed (in 1280 x 768-pixel format) as shown in Figure AW-H-13.

Now we will add a control button to the WCMCRM Main Menu. We will set this control button to open the WCMCRM Customer Data Form.

Adding a Command Button to a Switchboard Form:

1. Click the **Views drop-down list** button, and then select **Design View**.
2. If needed, minimize the Navigation Pane to allow more of the form itself to be displayed.
3. Click the **Command Button** button (note that the tool tip for this button refers to this as just the *Button* button). Click and drag in the form to create the command button area shown in Figure AW-H-14.
4. The placement of a command button object in the form automatically starts the Command Button Wizard, as shown in Figure AW-H-15, which is used to simplify setting the property settings for the command button object.

5. The first page of the Command Button Wizard asks "What action do you want to happen when the button is pressed?" We want clicking the button to open a form, so in the **Categories** list click **Form Operations**.
6. Clicking Form Operations displays a specific set of form operation actions in the Actions list, as shown in Figure AW-H-16.
7. Click **Open Form** in the Actions list, and then click the **Next** button.

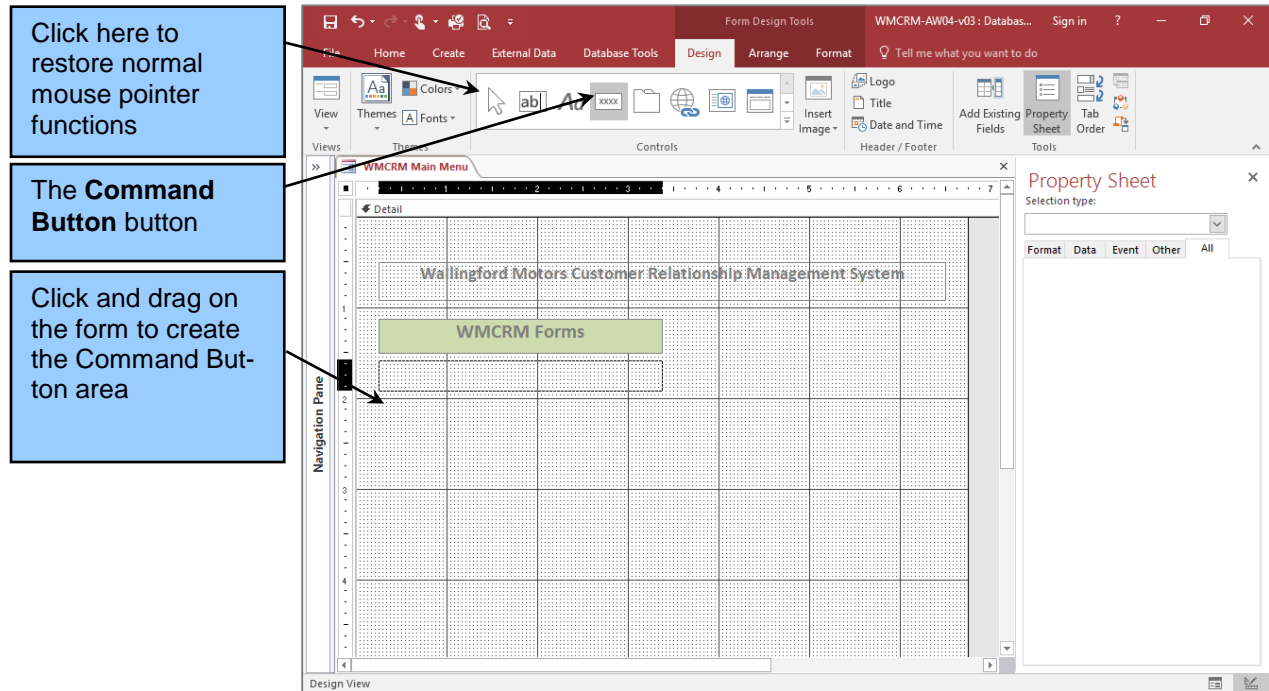


Figure AW-H-14 — The Command Button on the Form

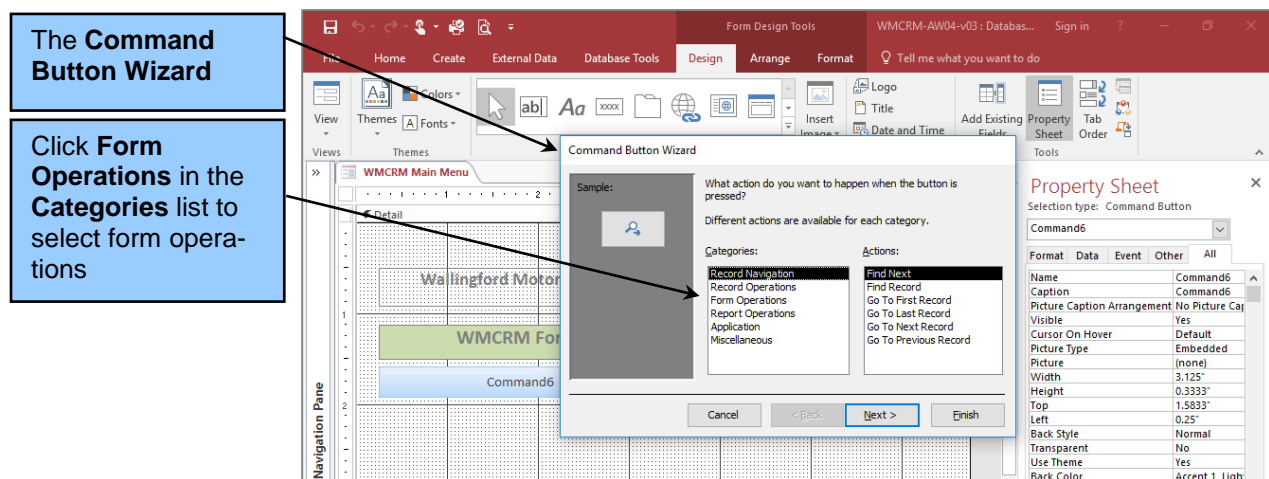


Figure AW-H-15 — The Command Button Wizard

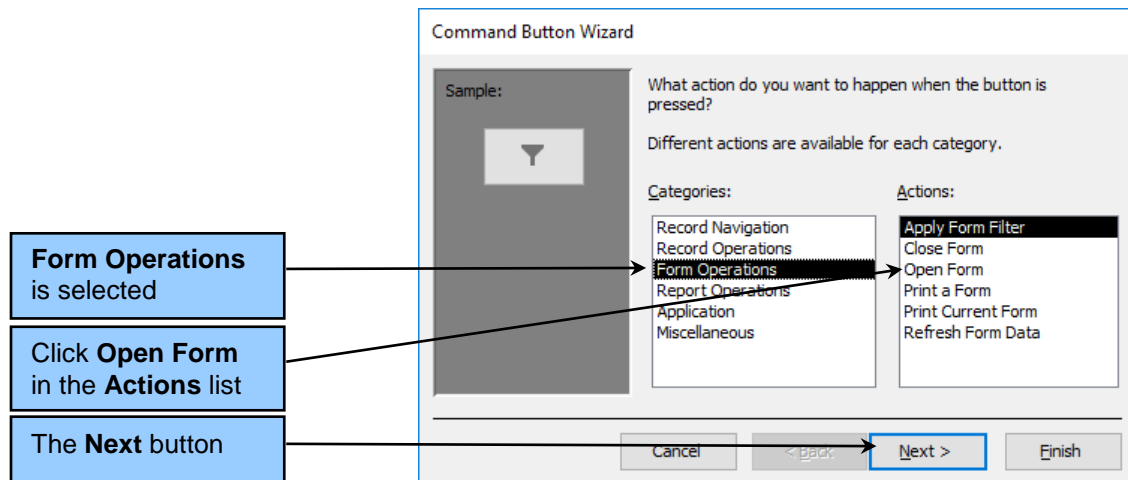


Figure AW-H-16 — Selecting Form Options

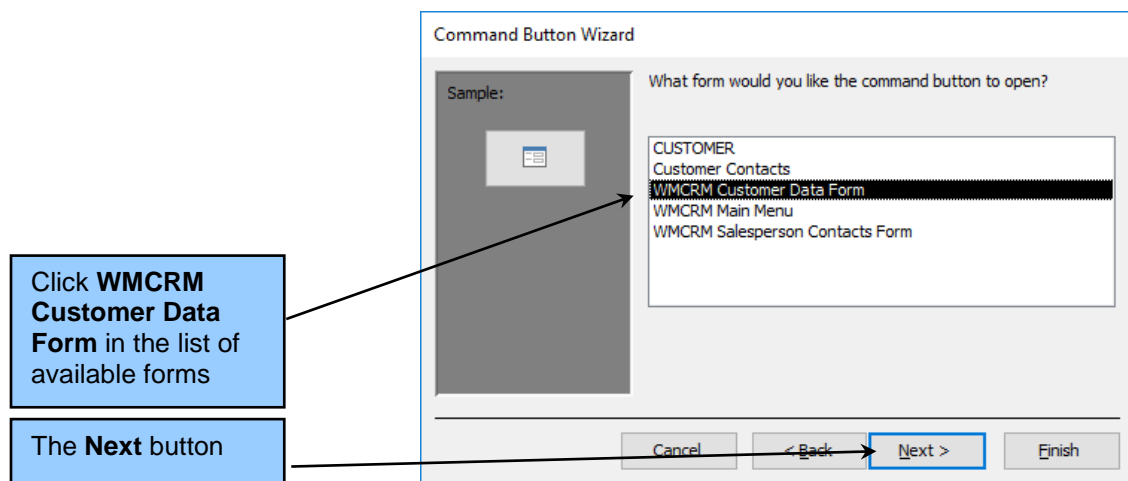


Figure AW-H-17 — Selecting the WMCRM Customer Data Form

8. The second page of the Command Button Wizard asks "What form would you like the command button to open?" As shown in Figure AW-H-17, click the **WMCRM Customer Data Form** to select it.
9. Click the **Next** button.
10. As shown in Figure AW-H-18, the third page of the Command Button Wizard asks "Do you want the button to find specific information to display in the form?"
11. The default setting of "Open the form and show all the records" is correct for our application, so click the **Next** button.
12. As shown in Figure AW-H-19, the fourth page of the Command Button Wizard asks "Do you want text or a picture on the button?"

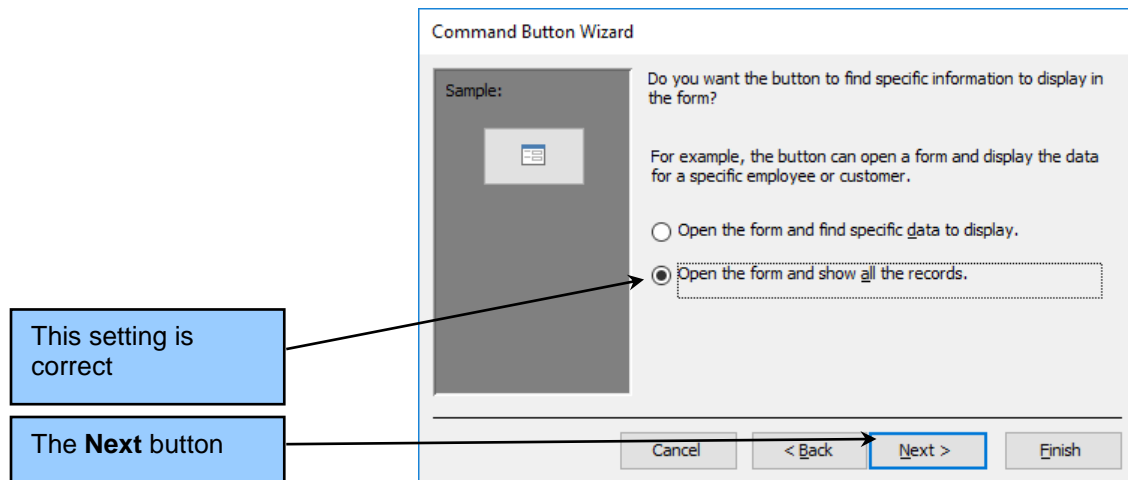


Figure AW-H-18 — Selecting the Information to Be Displayed

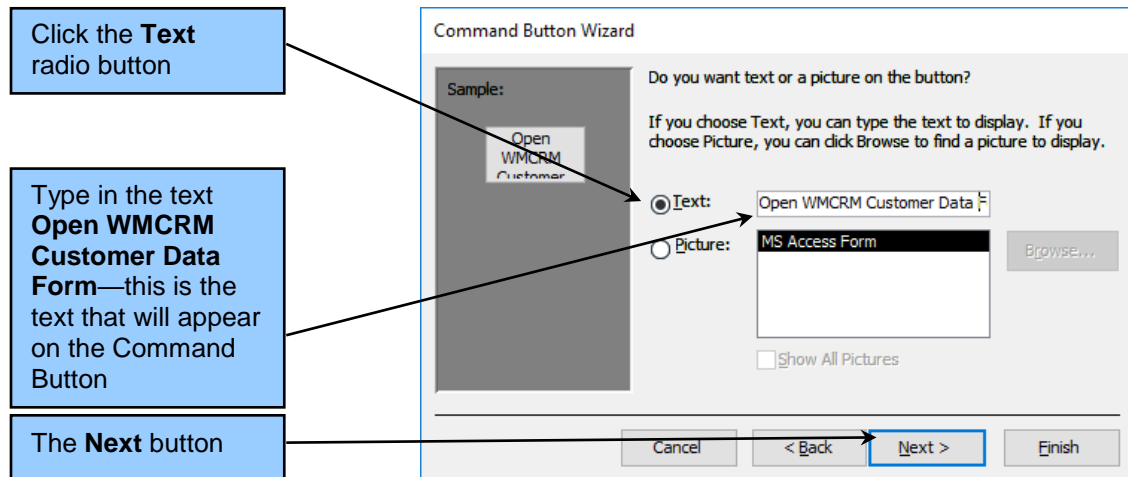


Figure AW-H-19 — Creating the Command Button Text Label

13. Note that we can choose either a text label or a picture to be placed on the command button itself to label the button in the form. As shown in Figure AW-H-19, we will use text and label the command button as *Open WMCRM Customer Data Form*. Click the **Text** radio button to select it, and then type the text **Open WMCRM Customer Data Form** into the text box.
14. Click the **Next** button.
15. As shown in Figure AW-H-20, the final page of the Command Button Wizard asks "What do you want to name the button?" Naming the button allows us to reference it by a known name if we need to use or modify it later while developing our WMCRM application.

16. As shown in Figure AW-H-20, we will use the name *CommandButtonWMCRM01* as our button name. Click the text box to select it, and then type the text **CommandButtonWMCRM01** into the text box.
17. Click the **Finish** button.
18. As shown in Figure AW-H-21, the command button is now in the form, but the size of the button has been changed to the width of the typed text. Click and drag the right edge of the command button object so that it is the size and shape we originally set it, as shown in Figure AW-H-21.
19. The final command button object is shown in Figure AW-H-22. Note that the command button name we created is displayed in the command button property settings.
20. Click the **Save** button on the Quick Access Toolbar.
21. Click the **Home** command tab, and select **Form View**. The form is now displayed (in 1280 x 768-pixel mode) as shown in Figure AW-H-23.
22. Click the **Open WMCRM Customer Data Form** command button. As shown in Figure AW-H-24, the WMCRM Customer Data Form is displayed.

We now know the tools and techniques needed to complete the WMCRM Main Menu switchboard shown in Figure AW-H-1. At this point, you should add the other labels and command buttons needed to complete the switchboard. Be sure to save and test your work as you go.

With the addition of a main menu or switchboard to our prototyped application, the users will be able to easily test the application and make suggestions for changes and improvements.

By The Way

There are other options and features for Microsoft Access switchboards that we have not covered here. Consult the Microsoft Access 2016 documentation for more information and take some time to experiment with the switchboard capabilities.

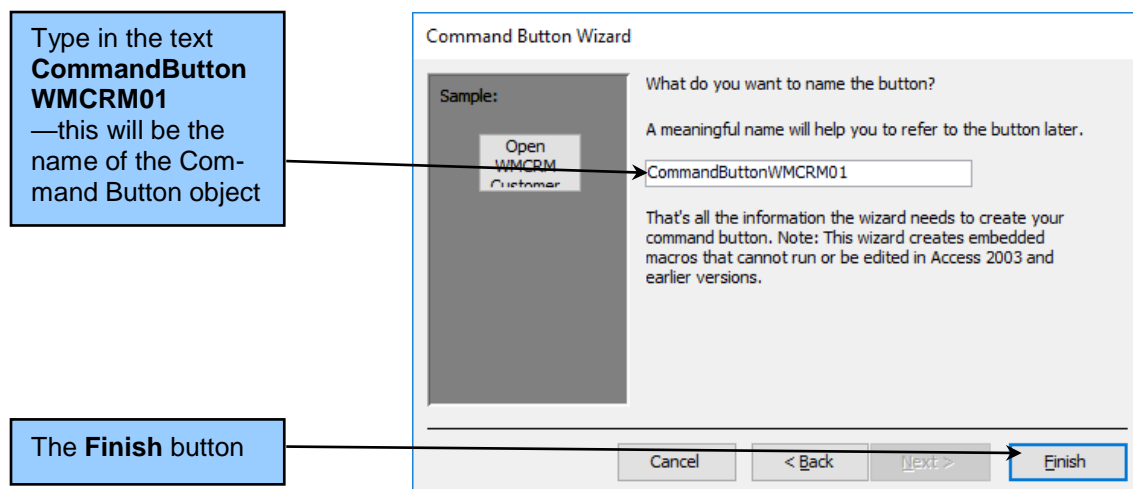


Figure AW-H-20 — Creating the Command Button Object Name

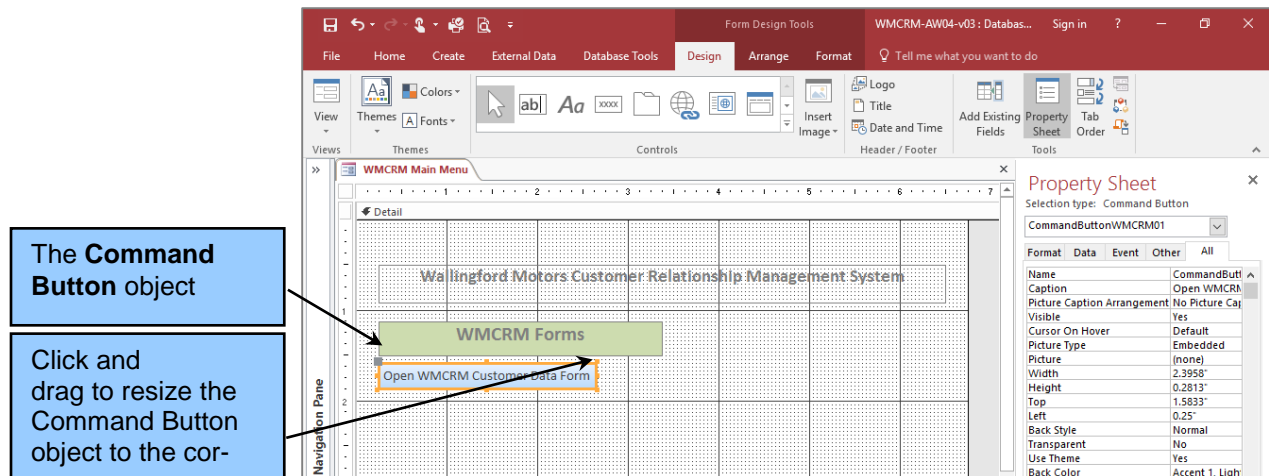


Figure AW-H-21 — Resizing the Command Button Object

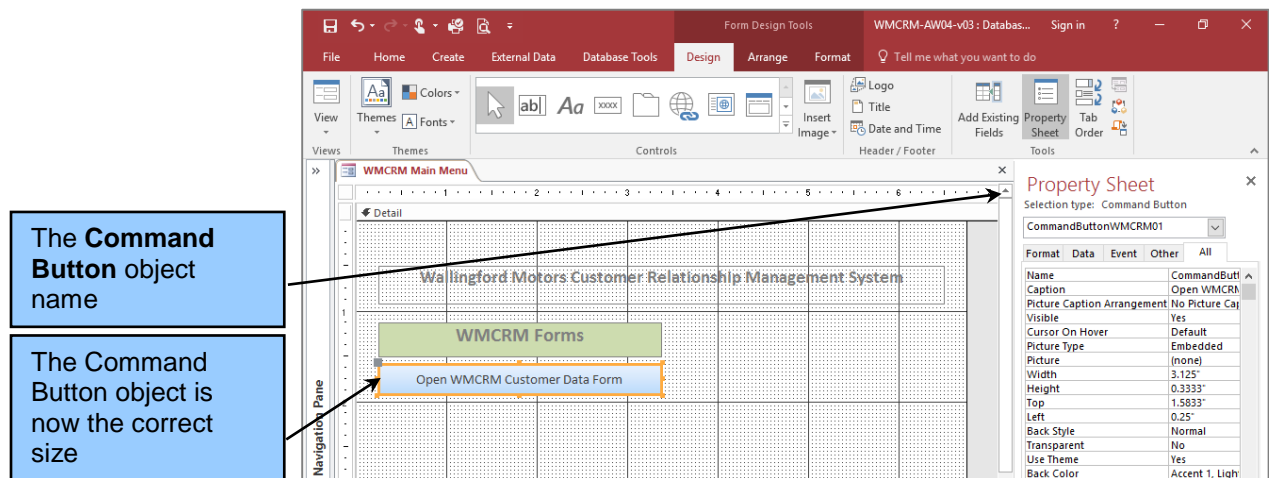


Figure AW-H-22 — The Final Command Button Object

Closing the Database and Exiting Microsoft Access

This completes the work we will do in this chapter's "The Access Workbench." As usual, we finish by closing the database and Microsoft Access.

Closing the WCMCRM-AW04-v03 Database:

1. To close the WCMCRM-AW04-v03 database and exit Microsoft Access, click the **Close** button in the upper-right corner of the Microsoft Access window.

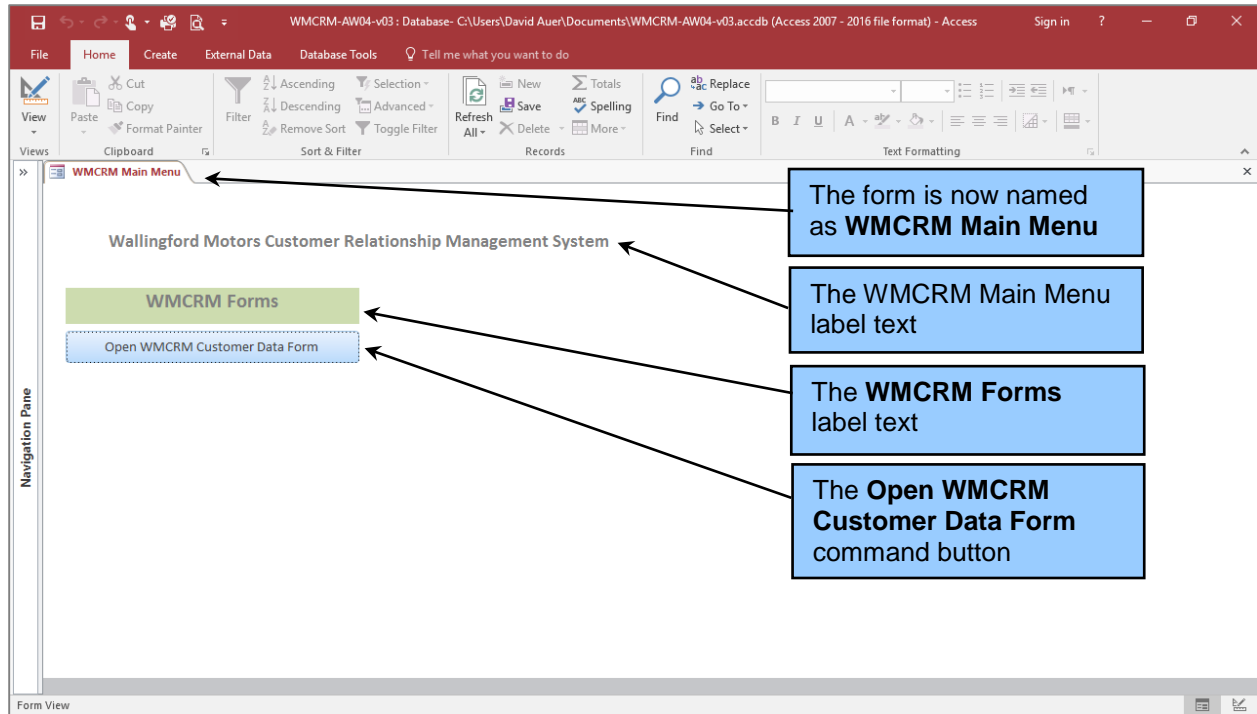


Figure AW-H-23 — The WCMCRM Main Menu with the Command Button

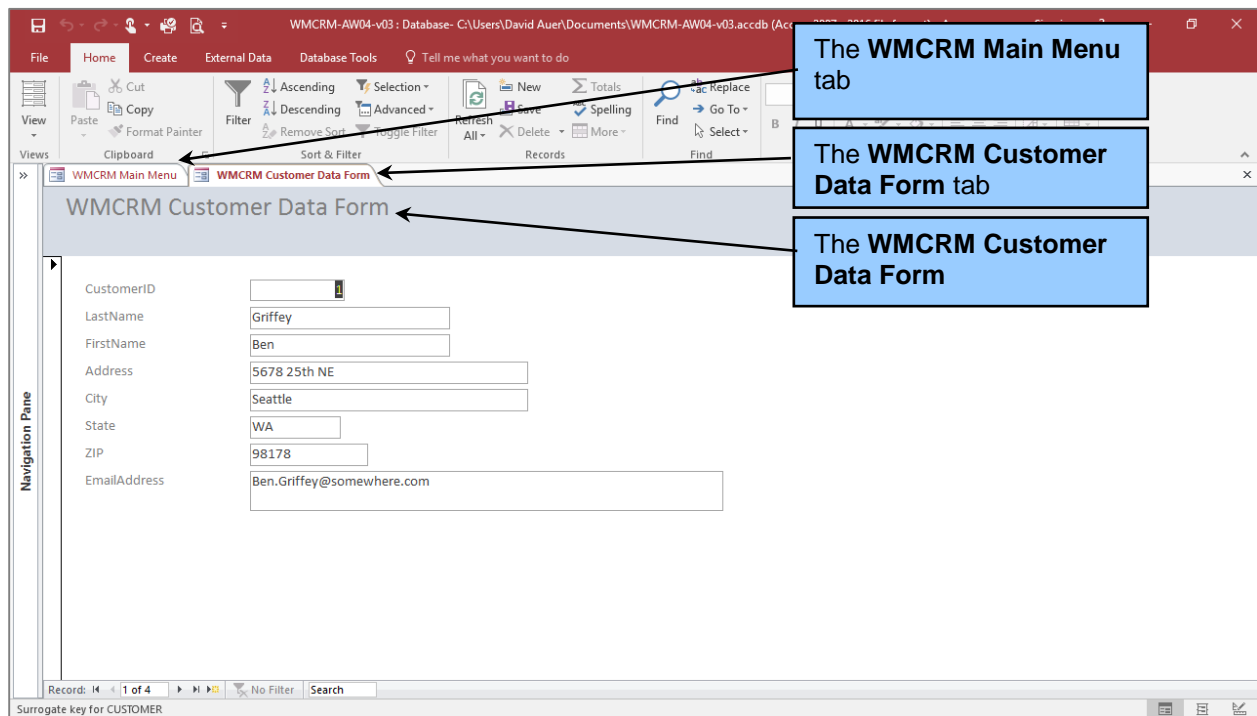


Figure AW-H-24 — The Displayed WCMCRM Customer Data Form

KEY TERMS

Command Button
Label
Microsoft Access 2016 Switchboard

EXERCISES

In “The Access Workbench” section in Chapter 4, you created some prototype forms and reports for the Wedgewood Pacific database (WP.accdb).

H-AW-1 Create a switchboard for the Wedgewood Pacific database (WP.accdb).

