



Access

Basic

Instructor Guide

[Your Company Name]

Custom **Guide**

EVALUATION ONLY

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Access Fundamentals

Microsoft Access is a powerful database program you can use to store all kinds of information—from a simple list of contacts to an inventory catalog with tens of thousands of products. Once information is stored in a Microsoft Access database, it's easy to find, analyze, and print.

This chapter is an introduction to working with Access. We don't get into great depth here, but we make sure you understand the key parts of Access, such as tables, forms, queries, and reports. You'll learn about the main components of the program screen, how to work with database objects, and how to use help.

Objectives

- Introduction to Databases
- Understand the Screen
- Open and Save a Database
- Work with Database Objects
- Tour of Tables
- Tour of Queries
- Tour of Forms
- Tour of Reports
- Help
- Close and Exit Access

Introduction to Databases

Commented [JH1]:
Practice File: None

Describe what a database is and discuss its capabilities.

In its simplest form, a database is a collection of information organized into a list. Whenever you make a list of information, such as names, addresses, products, or invoices, you are, in fact, creating a database.

Technically speaking, you don't even have to use a database program to create a database. You can make a list of information in all kinds of programs, such as Microsoft Excel or Word.

A database program, however, is much more powerful than a simple list you keep on paper or in a Microsoft Word document. A database program lets you:

- **Store Information:** A database stores lists of information that are related to a particular subject or purpose. A database stores personal information, such as a list of Aunt Mildred's home recipes, or business information, such as a list of hundreds of thousands of customers. A database also makes it easy to add, update, organize, and delete information.
- **Find Information:** You can easily and instantly locate information stored in a database. For example, you can find all the customers with the last name "Johnson" or all the customers who live in the 55417 ZIP code and are older than 65.
- **Analyze and Print Information:** You can perform calculations on information in a database. For example, you could calculate what percent of your total sales comes from the state of Texas. You can also present information in a professional-looking printed report.
- **Manage Information:** Databases make it easy to work with and manage huge amounts of information. For example, with a few keystrokes you can change the area code for hundreds of customers in the (612) area code to a new (817) area code.
- **Share Information:** Most database programs (including Microsoft Access) allow more than one user to view and work with the same information at once. Such databases are called multi-user databases.



Database Objects

Databases usually consist of several parts. A Microsoft Access database may contain up to seven different database object types. Some objects you will use all the time (such as Tables), while others you may hardly ever use (such as Modules).

Database Objects		
	Tables	Tables store a database's data in rows (records) and columns (fields). For example, one table could store a list of customers and their addresses while another table could store the customers' orders. A database must always contain at least one table where it can store information—all the other database objects are optional.
	Queries	Queries ask a question of data stored in a table. For example, a query might only display customers who are from Texas.
	Forms	Forms are custom screens that provide an easy way to enter and view data in a table or query.
	Reports	Reports present data from a table or query in a printed format.
	Macros	Macros help you perform routine tasks by automating them into a single command. For example, you could create a macro that automatically opens and prints a report.
	Modules	Like macros, modules automate tasks, but they do so by using a built-in programming language called Visual Basic or VB. Modules are much more powerful and complex than macros.

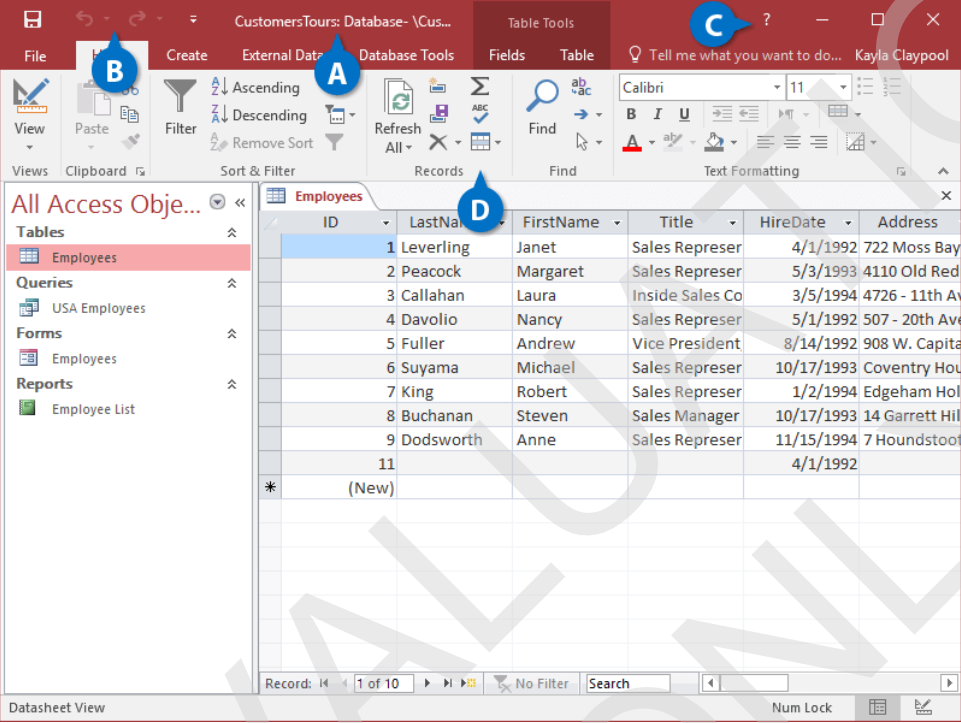
Understand the Screen

There is a lot going on with the Access program screen, so this lesson will help you become more familiar with it. Review the labeled items in the images below, then refer to the tables to see what everything does.

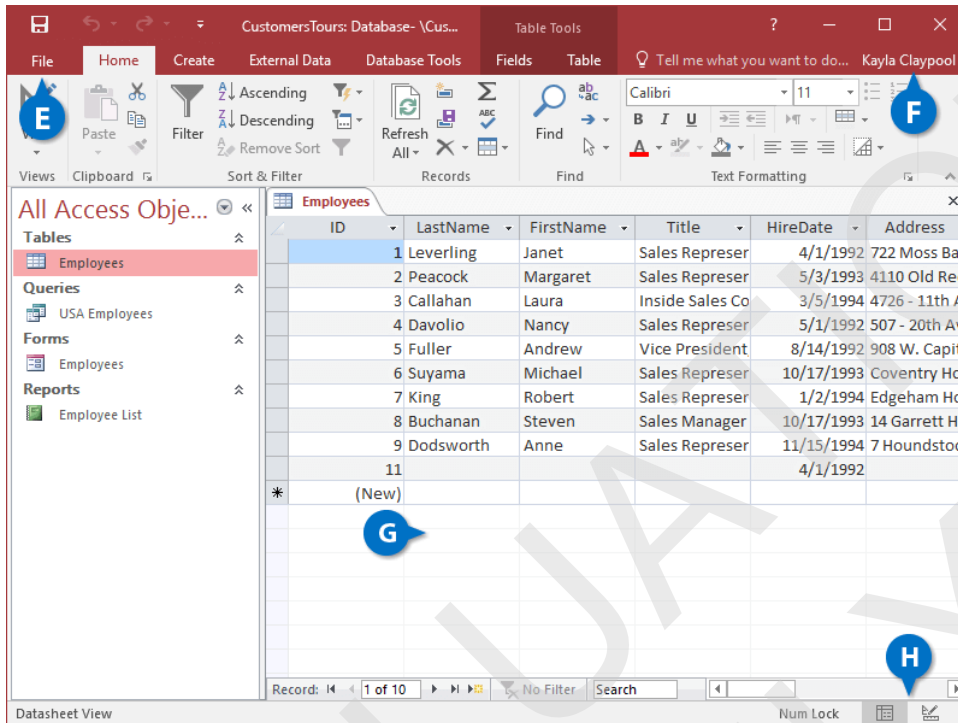
Commented [JH2]:
Practice File: New blank Access database.

Discuss the appearance of the Access window.

Especially point out how the ribbon and its tabs contain most of the commands needed to put together a database.



A	Title Bar: Displays the name of the current file.	C	Help/Display Options: Here you can change how much of the ribbon is displayed; minimize, maximize or restore the screen; or close Access altogether.
B	Quick Access Toolbar: This is a fast way to access the most used features.	D	The Ribbon: This is where you'll find all the options you need to make a database. The options are grouped into tabs.



E	File tab: This is where you'll find basic file management commands, such as New, Open, Save, Close, and program options.	G	Access Object: The Access Object is where you can view the content of the open or selected database object.
F	Microsoft Account User Info: When you log in with your Microsoft account, your name and picture appear here.	H	View buttons: Use one of the view buttons to quickly switch between the different views.

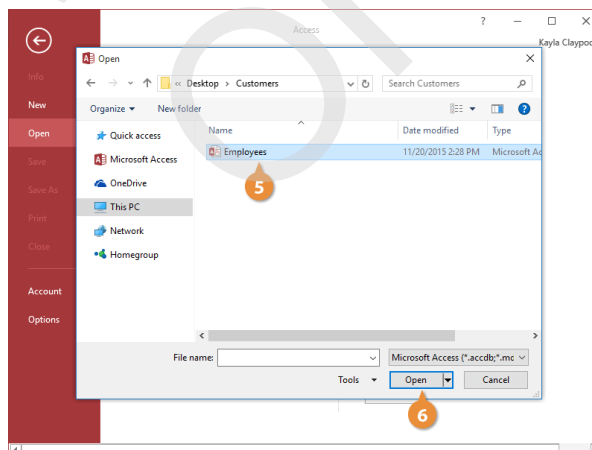
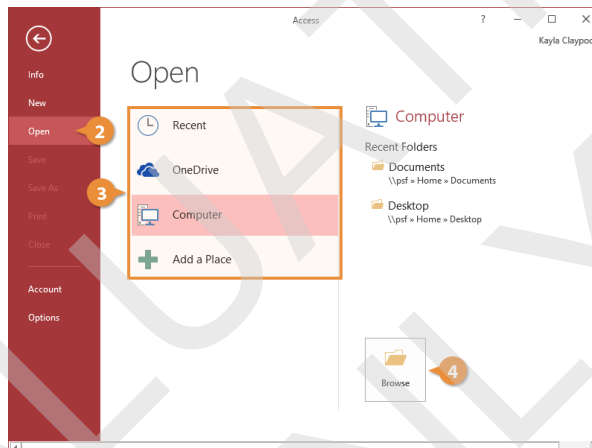
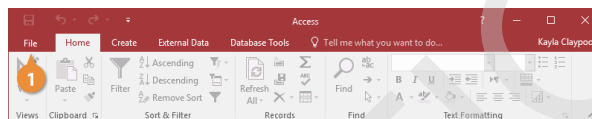
Open and Save a Database

To make changes to an existing database, you'll first need to open it.

Open a Database

- 1 Click the **File** tab.
- 2 Click **Open**. The databases you've recently opened show up here.
- 3 Select the location where the file is saved.
 - If you're signed into your Microsoft account, you can open files directly from **OneDrive**.
 - Or click **Computer** to open a database that is saved locally to your computer.
- 4 Click **Browse**.
- 5 Navigate to where your file is saved and select the file you want to open.
- 6 Click **Open**.

The database opens.



Commented [JH3]:

As a best practice, create fresh copies of the practice files for each instance of your classes. The files are used for multiple lessons and altered too much to reuse after completing a course.

Practice File: Employees.accdb

Commented [JH4]:

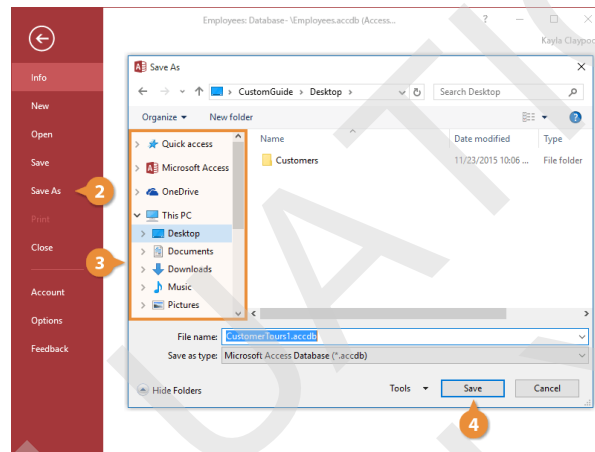
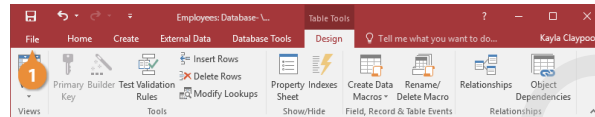
1. Click the File tab.
2. Click Open.
3. Select the location where you have saved your practice files.
4. Click Browse.
5. Navigate to the Practice Folder for Access 2016 and select the Employees.accdb database.
6. Click Open.
7. Make necessary changes to the file.

Save a Database

Now that an edit has been made, let's save the database.

- 1 Click the **File** tab.
- 2 Click **Save As**.
- 3 Select the location where you want to save the file.
- 4 Click **Save**.

The file is saved.



Commented [IG5]:

1. Click the File tab.
2. Click Save As.
3. Select Desktop.
4. Click Save.

Work with Database Objects

Commented [JH6]:
Practice File: Employees.accdb

Use the Navigation Pane

Think of the Navigation Pane as the mission control center for an Access database. You use the Navigation Pane to open and manage the different types of objects in your database.

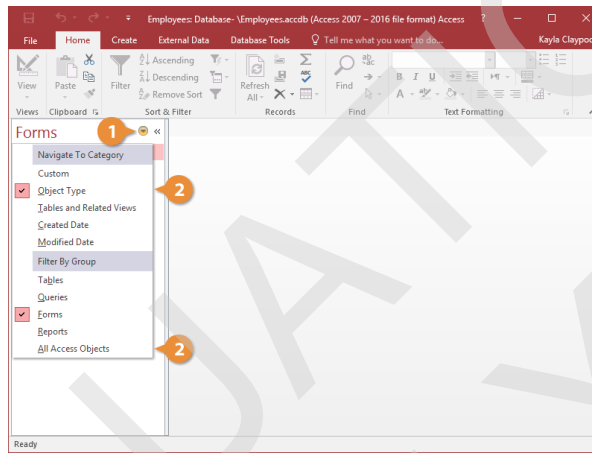
Commented [JH7]:
1. Click the arrow button at the top of the Navigation Pane.
2. Select All Access Objects.

- 1 Click the **arrow** button at the top of the Navigation Pane to select the type of object(s) you want to display.

The Navigation Pane can display different types of Access objects. You can change the view settings to view all the database objects in this database.

- 2 Select **Object Type** and make sure there's a check mark next to **All Access Objects**.

A menu displays, listing the different types of database objects you can display.

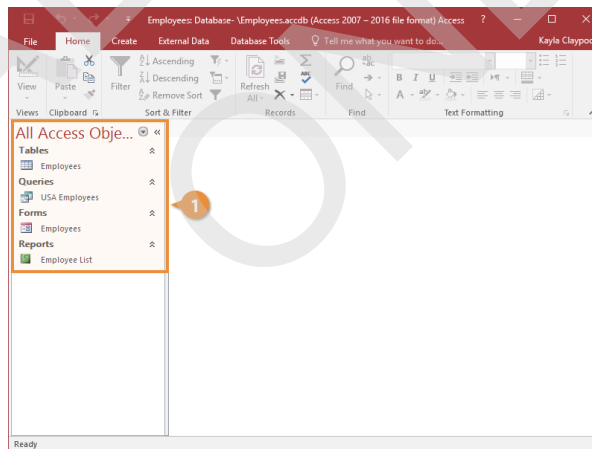


Open a Database Object

- 1 Double-click an object in the Navigation Pane.

The Navigation Pane contains buttons for each type of database object.

Commented [JH8]:
1. Double-click the Employees form.



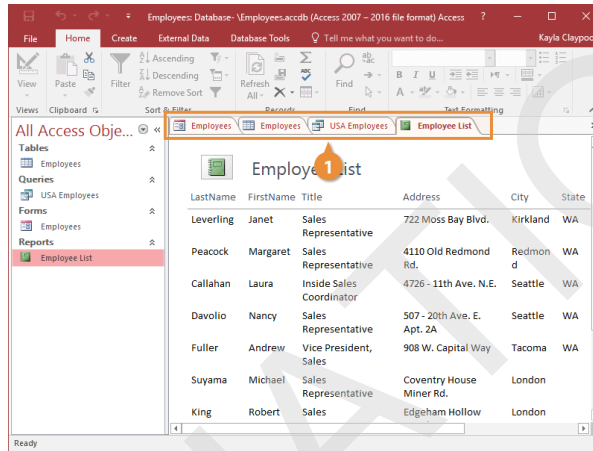
Switch Object Tabs

If you have multiple objects open, you can use the tabs to switch between objects.

- 1 Click the tab for the object you want to display.

The object appears on the screen as a tabbed item.

As you open additional objects, they stack on top of each other in the same window. To bring a different object to the top, where it's visible, click its tab.



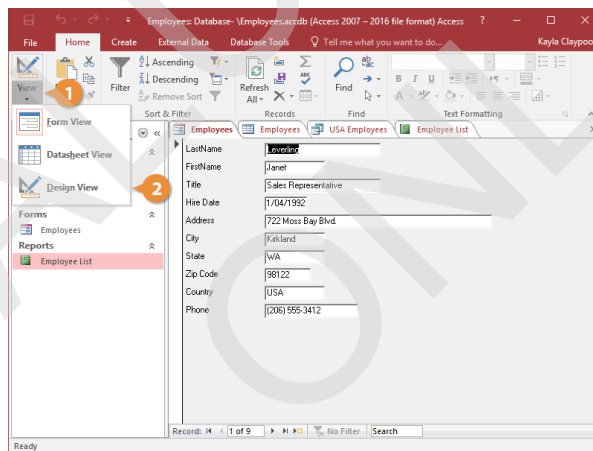
Commented [JH9]:

1. From the Navigation Pane, double-click the Employees table and USA Employees query to open them
2. Demonstrate switching between object tabs.

Modify a Database Object in Design View

- 1 Click the **View** button list arrow.
- 2 Select **Design View**.

Tip: You can also modify a database object in Design view by right-clicking the object's tab and selecting **Design View** from the contextual menu.



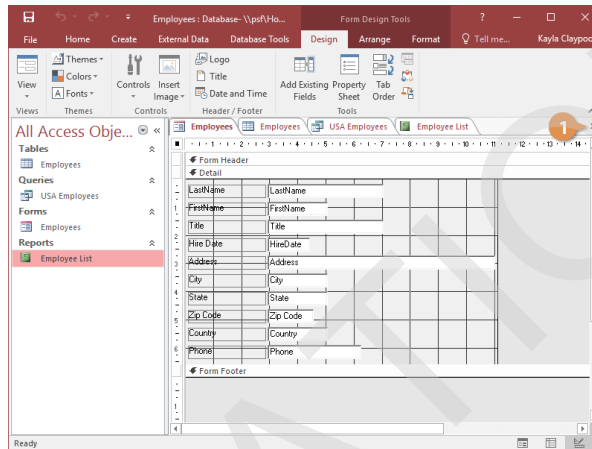
Commented [JH10]:

1. With the Employees form tab open, click the View button list arrow.
2. Select Design View.

Close a Database Object

- 1 Click the object's **Close** button in the upper-right corner of the window.

The object closes. Remember, closing an object is different than closing the entire database.



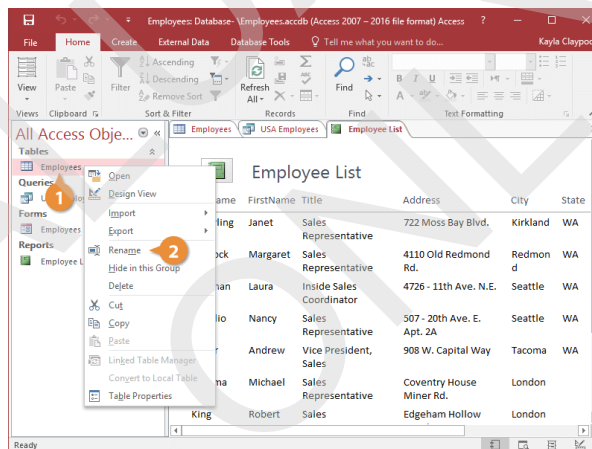
Commented [JH11]:

1. Click one of the object's Close button.

Rename a Database Object

- 1 In the Navigation Pane, right-click the object that you want to rename.
- 2 Select **Rename** from the contextual menu.
- 3 Type a new name and press **Enter**.

The object is renamed.



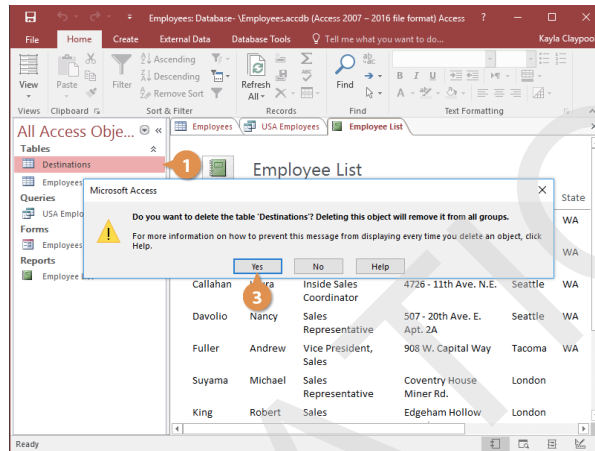
Commented [JH12]:

1. Right-click any object in the Navigation Pane.
2. Select Rename.
3. Explain how you can rename an object at this point, but don't actually rename any objects.

Delete a Database Object

- 1 Select the object you want to delete in the Navigation Pane.
- 2 Press the **Delete** key.
- 3 Click **Yes** to Confirm the deletion.

The object is deleted.



Commented [JH13]:

1. Select an object in the Navigation Pane that isn't currently open.
2. Press the Delete key.
3. Click No to cancel the deletion (don't actually delete the object).

Tour of Tables

Commented [JH14]:
Practice File: Employees.accdb

Tables are the heart and soul of any database. They're where a database stores all its information. All the other database objects are merely tools to analyze and manipulate the information stored in tables.

Open a Table

- 1 Double-click the table you want to open in the Navigation Pane.

The table opens as a tab in the window.

Of course, before you can open a table, someone will need to have already created the table, or else you'll need to be using a database template that already has tables created for you.

ID	LastName	FirstName	Title	HireDate	Address
1	Leverling	Janet	Sales Represer	4/1/1992	722 Moss Bay
2	Peacock	Margaret	Sales Represer	5/3/1993	4110 Old Rec
3	Callahan	Laura	Inside Sales Co	3/5/1994	4726 - 11th A
4	Devolio	Nancy	Sales Represer	5/1/1992	507 - 20th Av
5	Fuller	Andrew	Vice President	8/14/1992	908 W. Capit
6	Suyama	Michael	Sales Represer	10/17/1993	Coventry Ho
7	King	Robert	Sales Represer	1/2/1994	Edgeham Ho
8	Buchanan	Steven	Sales Manager	10/17/1993	14 Garrett Hi
9	Dodsworth	Anne	Sales Represer	11/15/1994	7 Houndstoo
*	(New)				

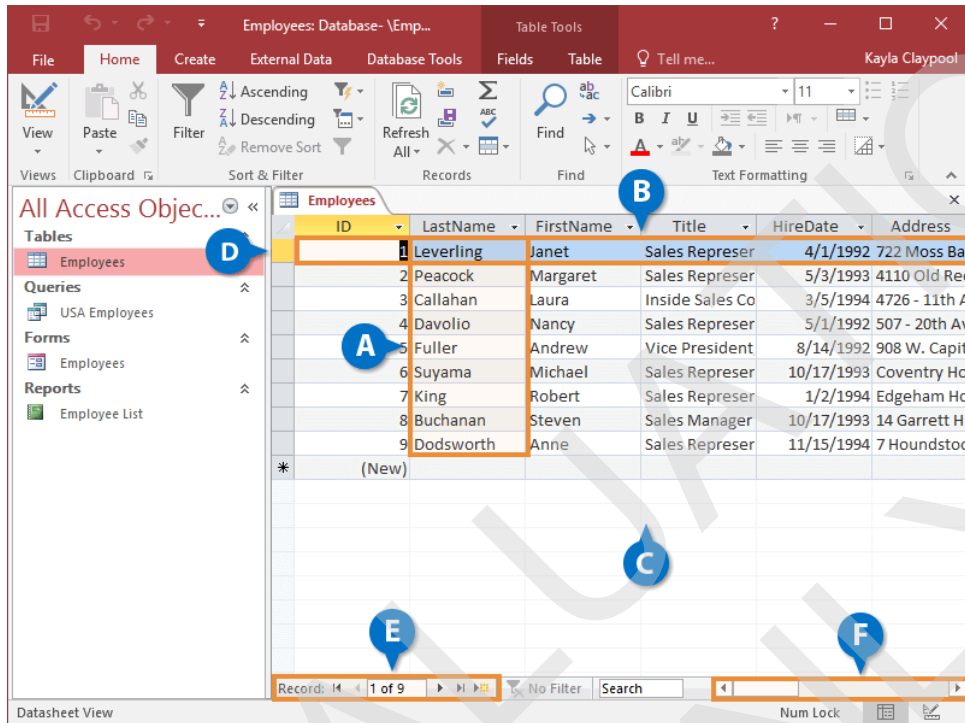
Commented [JH15]:
1. Double-click the Employees table from the Navigation Pane.

Parts of a Table

Let's take a closer look at the current table and identify its different components.

Commented [JH16]:

Describe the different components of a table.



A	Fields: Tables are made up of groups of fields. A field is a specific type of information, such as a person's last name, address, or phone number.
B	Records: Together, the related fields for each individual person, place, or thing make up a single record.
C	Datasheet: Table information is displayed, entered, and modified in a datasheet. A datasheet is a grid that contains all the records in a table.
D	Record selector: The record selector shows indication of the record that you are currently working on.
E	Record Navigation bar: You use the Record Navigation bar buttons to move through the records in a table.
F	Scroll bars: Tables usually contain too much information to display on the screen at once, so you'll have to use the scroll bars to see all of it.

Next, look at the record navigation buttons near the bottom of the screen, as shown in the table below. The record navigation buttons on the Record Navigation bar display the number of records in the current database and allow you to move between these records.

Table Navigation Using the Record Navigation Bar			
Record: 1 of 9 No Filter Search			
Go To	Navigation Buttons	Keyboard	Mouse
Next record	Click the ► Next record navigation button.	Press the <↓> arrow key.	Click the record you want to select (if displayed).
Previous record	Click the ◀ Previous record navigation button.	Press the <↑> arrow key.	Click the record you want to select (if displayed).
First record in a table	Click the ◀ First record navigation button.	Press <Ctrl> + <Home> (when not editing record).	N/A
Last record in a table	Click the ► Last record navigation button.	Press <Ctrl> + <End> (when not editing record).	N/A
New blank record	Click the ➕ New (blank) record navigation button.	N/A	Click in the (New) row at the end of the table.
Search for records using keywords	Type a keyword in the Search box next to the navigation buttons.	N/A	N/A

Tour of Queries

Commented [JH17]:
Practice File: Employees.accdb

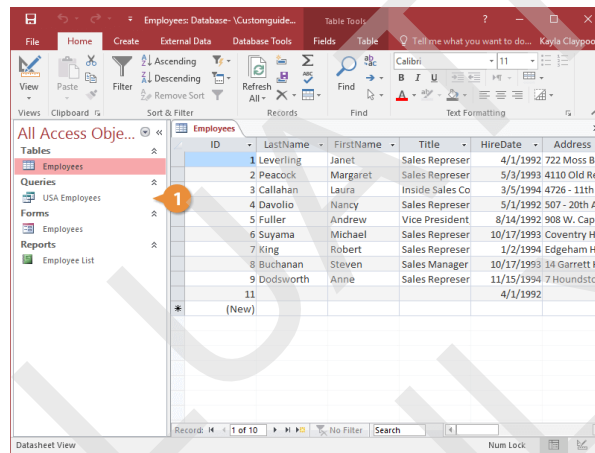
A query asks a question about the information in one or more tables and then retrieves the results.

For example, if you wanted to know which employees had worked for the company for more than five years, you could create a query to examine the contents of the Hire Date field to find all the records in which the hire date is more than five years old. Access would retrieve the information that meets your criteria and display it in a datasheet.

Open a Query

- 1 Double-click the query you want to open in the Navigation Pane.

Notice that the query doesn't look any different than a table. Information is displayed in a datasheet, and you can even edit records in some queries. But, the information in a query isn't a duplication of the data in a table—it's just another way of looking at it.



ID	LastName	FirstName	Title	HireDate	Address
1	Leverling	Janet	Sales Represer	4/1/1992	722 Moss Bay
2	Peacock	Margaret	Sales Represer	5/3/1993	4110 Old Red
3	Callahan	Laura	Inside Sales Co	3/5/1994	4726 - 11th A
4	Davolio	Nancy	Sales Represer	5/1/1992	507 - 20th Av
5	F Fuller	Andrew	Vice President	8/14/1992	908 W. Capita
6	Suyama	Michael	Sales Represer	10/17/1993	Coventry Hol
7	King	Robert	Sales Represer	1/2/1994	Edgeham Hol
8	Buchanan	Steven	Sales Manager	10/17/1993	14 Garrett Hil
9	Dodsworth	Anne	Sales Represer	11/15/1994	7 Houndstoot
11				4/1/1992	
*	(New)				

Commented [JH18]:
1. Double-click the USA Employees query from the Navigation Pane.

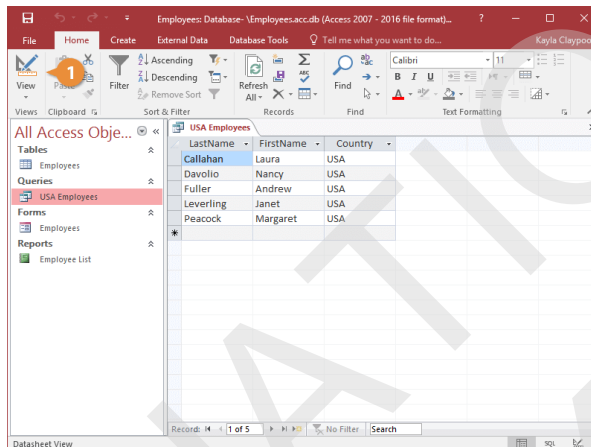
Display a Query in Design View

In Design View, you can see a query's underlying tables, which fields are included in the query, and the criteria used to specify which records to display.

- 1 Click the **View** button on the ribbon.

In Design View, you can see a query's underlying tables, which fields are included in the query, and the criteria used to specify which records to display.

Tip: You can also display a query in Design View by right-clicking the query object in the Navigation Pane and selecting **Design View**. Or, click the **Design View** button in the Status bar.

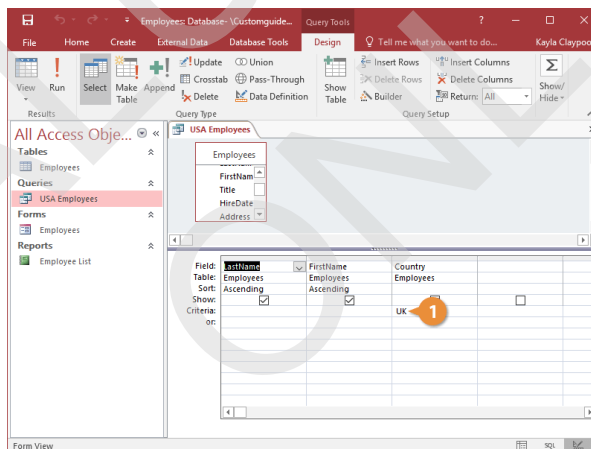


Commented [JH19]:

1. Click the View button on the ribbon.

Change a Query's Criteria

- 1 Select the information you want to edit in the Criteria row and type in your changes.



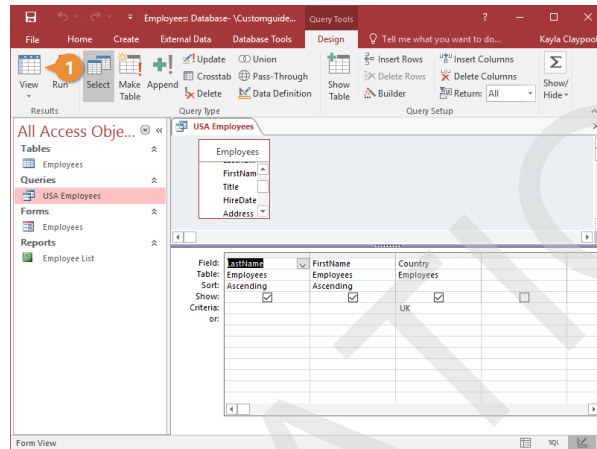
Commented [JH20]:

1. Replace the text "USA" in the Criteria row for the Country field with the text "UK."

Display a Query in Datasheet View

- 1 Click the **View** button on the ribbon.

Access runs the query and displays its records.



Commented [JH21]:

1. Click the View button on the ribbon.

Tour of Forms

Commented [JH22]:
Practice File: Employees.accdb

Forms make it easy to view and work with the information in tables and queries. Forms can include fill-in-the-blank fields, check boxes, drop-down lists, buttons, and more.

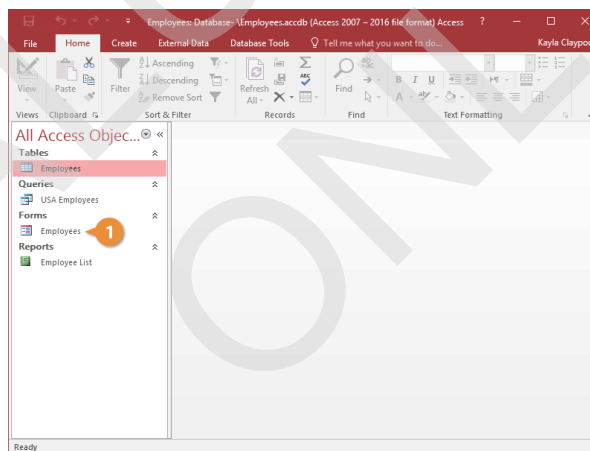
There are a few different kinds of forms in Access:

- **Form:** A traditional form view. In Layout view, you can edit the form design while also displaying data.
- **Split form:** Creates a split screen that allows you to view information through a Form view and Datasheet view at the same time. You can use the Datasheet view to locate a record and the Form view to edit it.
- **Multiple items form:** Allows you to view multiple records at a time—unlike a regular form where you can only work with one record at a time. It looks much like a datasheet, but allows for more customization.
- **Other forms types:** You may also come across forms that look like datasheets, or Modal Dialog forms that pop out in their own dialog box windows (instead of appearing as tabbed items next to the other database objects in the main database window).

Open a Form

- 1 Double-click the form you want to open in the Navigation Pane.

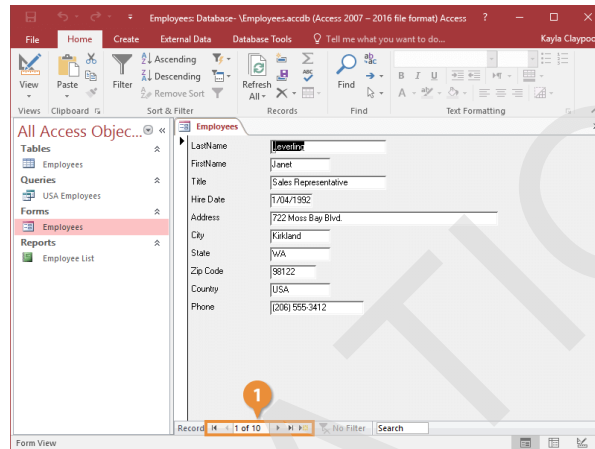
The form opens in the window in Form view.



Commented [JH23]:
1. Double-click the Employees form from the Navigation Pane and switch to Form view, if needed.

Navigate a Form

- 1 Use the record navigation buttons near the bottom of the screen to move to the first, last, next, or previous records.

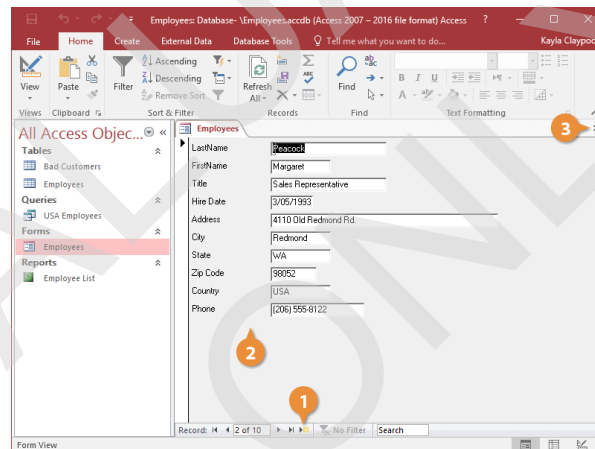


Commented [JH24]:

1. Click the Next record button on the Record Navigation bar.

Add a Record

- 1 Click the **New Record** button on the Record Navigation bar.
A blank form appears, ready to accept your information.
- 2 Complete the form fields.
When you're finished typing information into a form, press the **Tab** key to move on to the next field.
- 3 When you've finished entering the record, you can close the form. Click the **New Record** button to create another record, or use the **Record Navigation** buttons to view another record.



Commented [JH25]:

1. Click the New Record button on the Record Navigation bar.
2. Demonstrate how to enter information in a form.

Use **Tab** to move to the next field.

Use **Shift + Tab** to move back to the previous field.
3. Close the form.

A simple form may contain only fill-in-the-blank style text fields, but many forms are more complex and may contain lists, combo boxes, check boxes, and sub-forms.

Tour of Reports

Commented [JH26]:
Practice File: Employees.accdb

Reports present data in a table or query in printed format. Reports can be a simple list of records in a table or a complex presentation that includes calculations, graphics, or even charts.

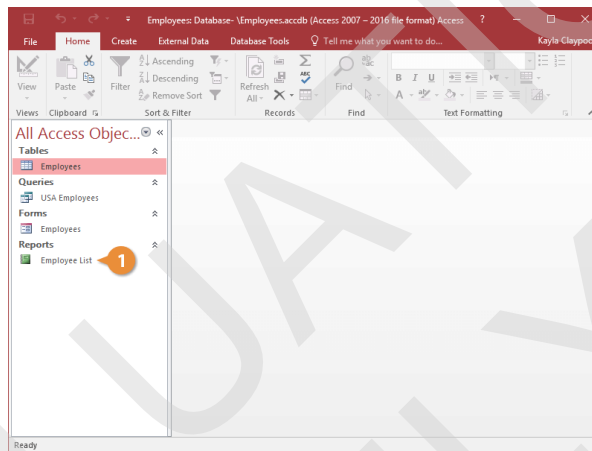
Although you can directly print tables and queries, they don't have any format or display options.

Open a Report

- 1 Double-click the report you want to open in the Navigation Pane.

The report appears in Report View.

Commented [JH27]:
1. Double-click the Employee List report.



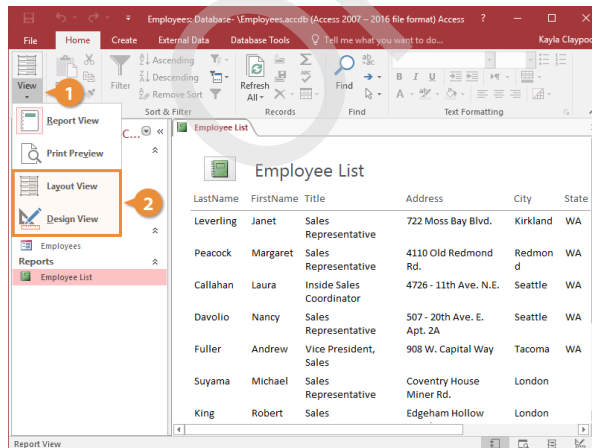
Switch to Layout or Design View

To edit a report's structure, you need to change to Layout or Design View.

- 1 Click the **View** button list arrow in the Views group on the Home tab.
- 2 Select **Layout View** or **Design View**.

Most edits can be made in Layout View, but complex tasks require Design View.

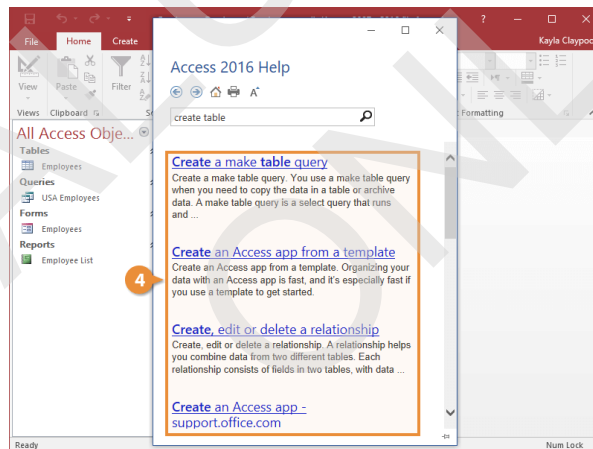
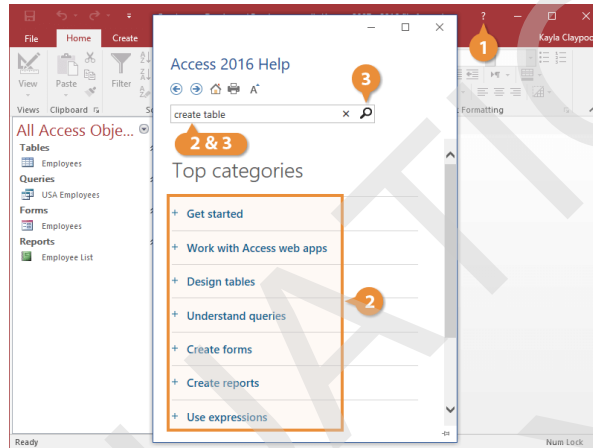
Commented [JH28]:
1. Click the View button list arrow.
2. Select Layout View.



Help

When you don't know how to do something in Access, look up your question in the Access Help files. The Access Help files can answer your questions, offer tips, and provide help for all of Access's features.

- 1 Click the **Microsoft Access Help** button on the ribbon.
The Access Help window appears.
- 2 Select a topic or click in the **Search** box.
A list of help topics appears.
- 3 Type a topic and click the **Search** icon.
- 4 Click the topic that best answers your question.
Information regarding the selected topic displays.



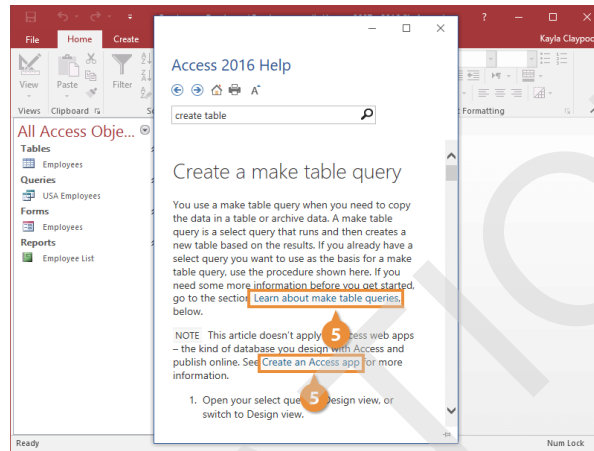
Commented [JH29]:
Practice File: Employees.accdb

1. Click the Microsoft Access Help button on the ribbon.
2. Click the Search box.
3. Type "create table" and click the Search icon.
4. Click the first help topic.

5 Select a specific topic.

This way, you jump straight to the topic you really need.

Shortcut: You can also open the Help dialog box by pressing **F1**.



Close and Exit Access

Commented [JH30]:

Practice File: Employees.accdb

When you’re finished using a database, you should close it. When you close a database, however, the Access program doesn’t stop running. To stop using Access completely, you need to exit the program.

Close a Database

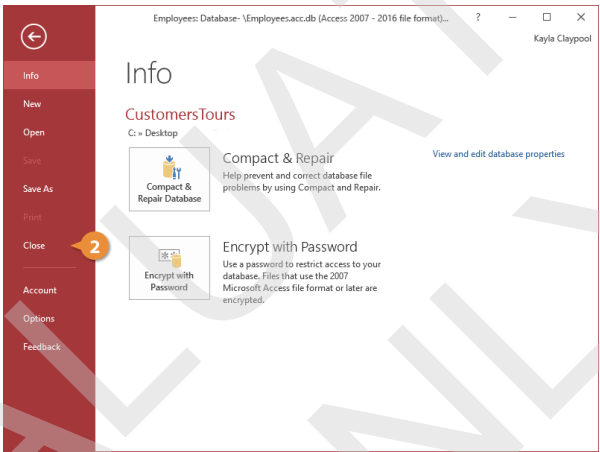
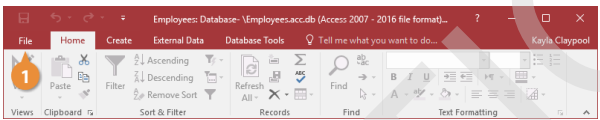
Commented [JH31]:

1. Click the File tab.

2. Select Close.

- 1 Click the **File** tab.
- 2 Select **Close**.

The database closes.



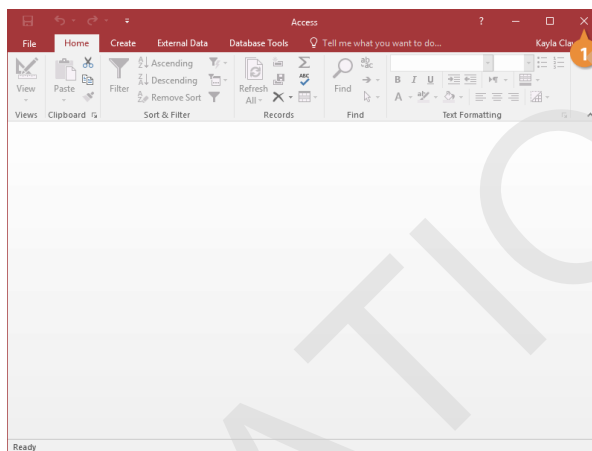
Exit Access

- 1 Click the **Close** button on the title bar.

The Access program closes.

If prompted to save changes before exiting, click **Yes**.

Clicking the **Close** button on the title bar also closes any open databases.



Commented [JH32]:
1. Click the Close icon.