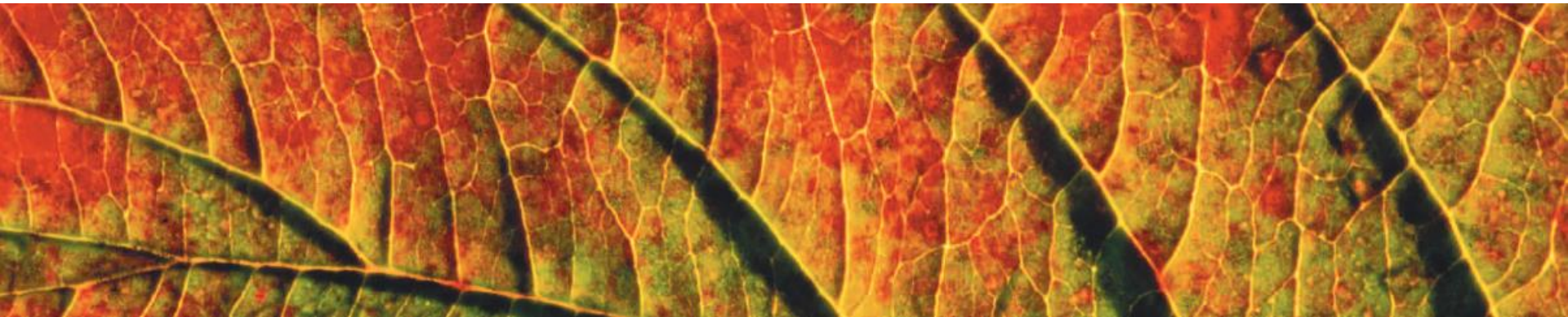# Access Tutorial

Creating a Database

Microsoft® Office

Objectives

- Learn basic database concepts and terms
- Explore the Microsoft Access window and Backstage view
- Create a blank database
- Create and save a table in Design view
- Enter field names and records in a table datasheet
- Open a table using the Navigation Pane

Objectives

- Open an Access database

- Navigate a table datasheet

- Create and navigate a simple query

- Create and navigate a simple form

The Access Window

The Quick Access Toolbar provides one-click access to commonly used commands, such as Save.

The **Shutter Bar Open/Close Button** allows you to close and open the Navigation Pane; you might want to close the pane so that you have more room on the screen to view the object's contents.

The **Navigation Pane** is the area that lists all the objects (tables, reports, and so on) in the database, and it is the main control center for opening and working with database objects.

Access assigns the default name "Table1" to the first new table you create. When you save the table, you give it a more meaningful name.

By default, Access creates the **ID column** as the primary key field for all new tables.

The **Click to Add column** provides another way for you to add new fields to a table.

The **Add & Delete group** contains options for adding different types of fields, including Text and Currency, to a table.

The **Fields tab** provides options for adding, removing, and formatting the fields in a table.

Datasheet view shows the table's contents as a datasheet. The status bar indicates the current view, in this case, Datasheet view.

The Microsoft Access Help button opens the Help window, where you can find information about Access commands and features as well as instructions for using them.
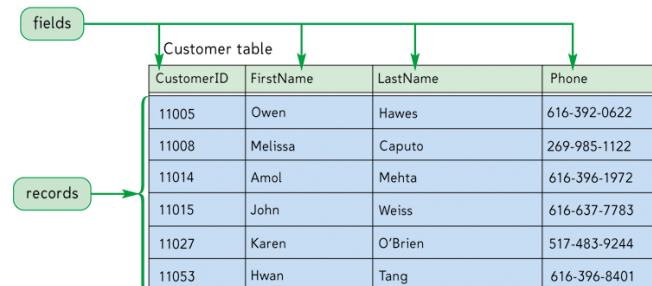
The **Access window** is the program window that appears when you create a new database or open an existing database.

You use the window buttons to minimize, maximize, and close the Access window.

The Ribbon provides the main Access commands organized by task into tabs and groups.

A **datasheet** displays the table's contents in rows and columns, similar to a table that you create in a Word document or an Excel spreadsheet. Each row will be a separate record in the table, and each column will contain the field values for one field in the table.

Organizing Data

- Your first step in organizing data is to identify the individual **fields**
  - The specific value, or content, of a field is called the **field value**
  - A set of field values is called a **record**
- Next, you group related fields together into **tables**

Figure 1-1	Data organization for a table of customers		

fields

Customer table

CustomerID	FirstName	LastName	Phone
11005	Owen	Hawes	616-392-0622
11008	Melissa	Caputo	269-985-1122
11014	Amol	Mehta	616-396-1972
11015	John	Weiss	616-637-7783
11027	Karen	O'Brien	517-483-9244
11053	Hwan	Tang	616-396-8401

records

Databases and Relationships

- A collection of related tables is called a **database**, or a **relational database**

- You connect the records in the separate tables through a **common field**

- A **primary key** is a field, or a collection of fields, whose values uniquely identify each record in a table

- When you include the primary key from one table as a field in a second table to form a relationship between the two tables, it is called a **foreign key** in the second table

Databases and Relationships

Figure 1-2   Database relationship between tables for customers and contracts
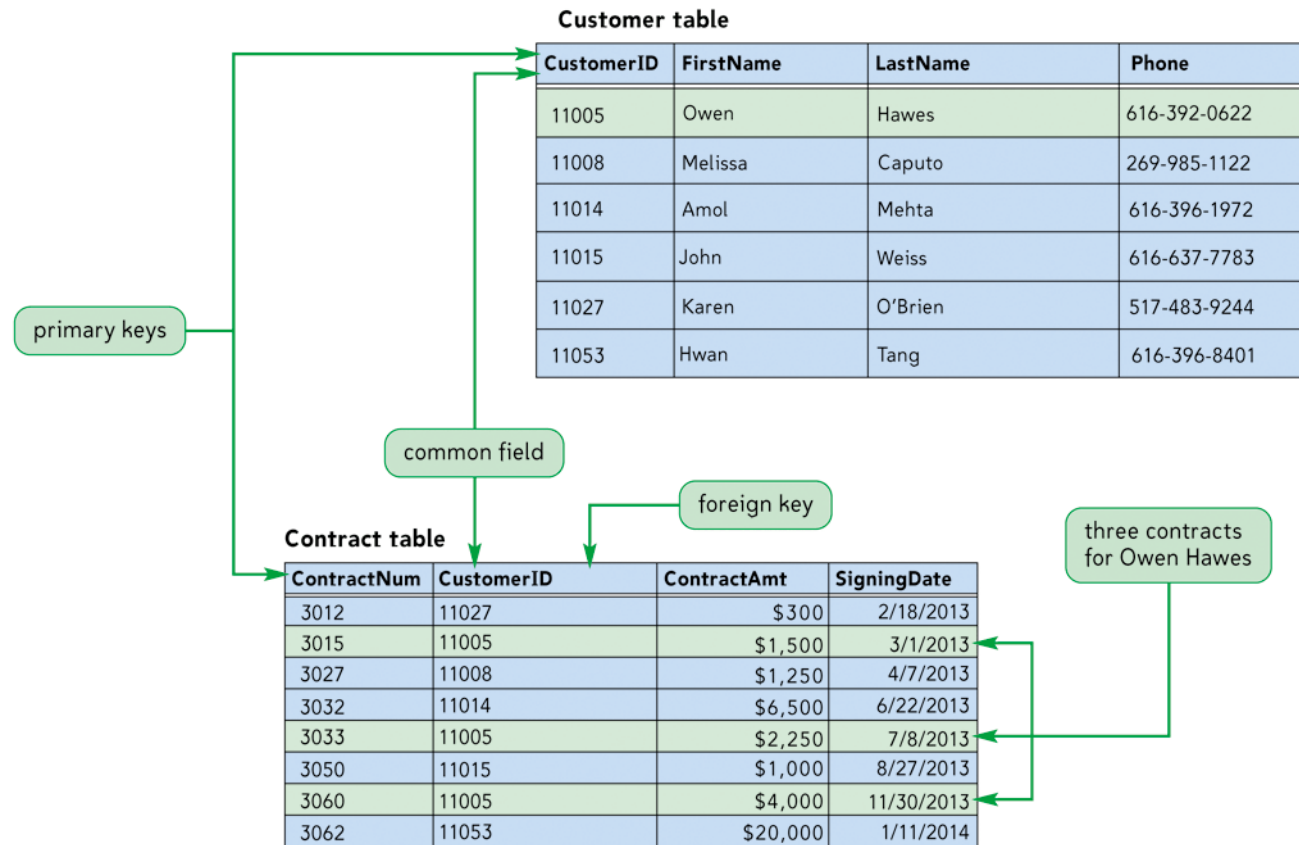
Relational Database Management Systems

- A **database management system (DBMS)** is a software program that lets you create databases and then manipulate data in them

- In a **relational database management system**, data is organized as a collection of tables

Figure 1-3 — Relational database management system
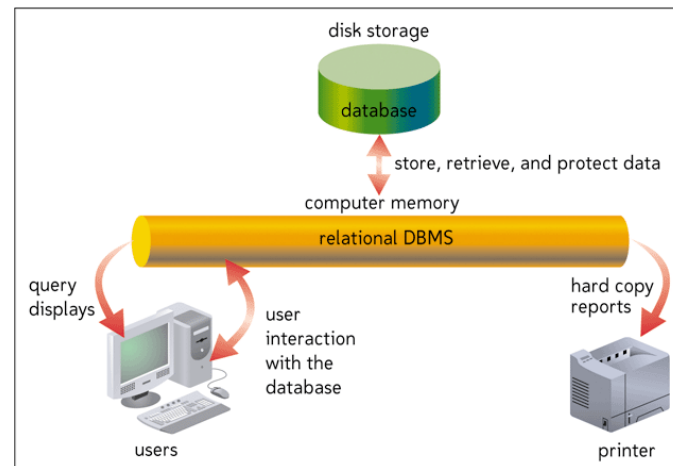
Creating a Table in Design View

- Click the Create tab on the Ribbon

- In the Tables group, click the Table button.

- Accept the default ID primary key field with the AutoNumber data type, or rename the field and change its data type, if necessary.

- Click the Design button (directly under the File Tab) to change to the design table view

- In the Fields Type cell, click the button for the type of field you want to add to the table (for example, click the Text button), and then type the field name. Repeat this step to add all the necessary fields to the table

Creating a Table in Design View

- In the first row below the field names, enter the value for each field in the first record, pressing the tab or Enter key to move to the next field

- After entering the value for the last field in the first record, press the Tab or Enter key to move to the next row, and then enter the values for the next record. Continue this process until you have entered all the records for the table

- Click the Save button on the Quick Access Toolbar, enter a name for the table, and then click the OK button

Entering Records

Figure 1-13   Datasheet with eight records entered
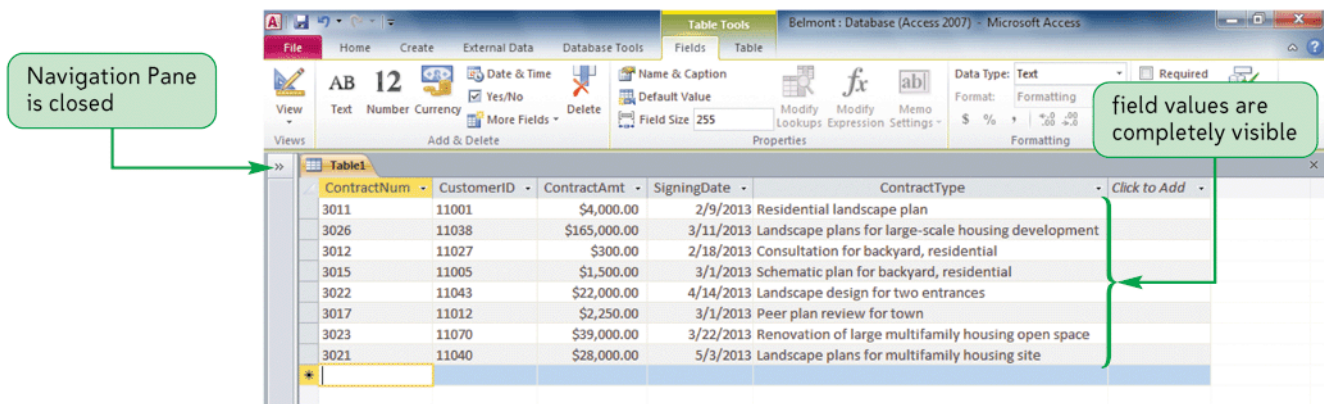
Entering Records & Saving a Table

- Click the Datasheet View button (under the file tab) to switch back to the Datasheet View.

- Add, edit, or delete records as desired (all changes within a table are automatically saved)

- Click the Save button on the Quick Access Toolbar. The Save As dialog box opens

- In the Table Name text box, type the name for the table

- Click the OK button

The Create Tab Options

The Forms group contains options for creating a **form**, which is a database object you use to enter, edit, and view records in a database.

The **Query Wizard** button opens a dialog box with different types of wizards that guide you through the steps to create a query. One of these, the **Simple Query Wizard**, allows you to select records and fields quickly to display in the query results.

You use the options in the Tables group to create a table in Datasheet view or in Design view (which you learn about in Tutorial 2).

The Queries group contains options for creating a **query**, which is a question you ask about the data stored in a database. In response to a query, Access displays the specific records and fields that answer your question.

The **Form tool** quickly creates a form containing all the fields in the table (or query) on which you're basing the form.

The **Form Wizard** guides you through the process of creating a form.

The Reports group contains options for creating a **report**, which is a formatted printout (or screen display) of the contents of one or more tables (or queries) in a database.

The **Create tab** provides options for creating various database objects, including tables, forms, and reports. The options appear on the tab grouped by object type.

The **Report tool** places all the fields from a selected table (or query) on a report, making it the quickest way to create a report.

The **Report Wizard** guides you through the process of creating a report.

Opening a Database

- Start Access. If necessary, click the File tab to display Backstage view

- Click the Open command in the navigation bar to display the Open dialog box

- Navigate to the database file you want to open, and then click the file

- Click the Open button

Opening a Database

Figure 1-17   Agreement table in the Oren database

same fields as in the Contract table

click the datasheet selector to select all the records in the table

table contains a total of 55 records

Navigating a Datasheet

- The **navigation buttons** provide another way to move vertically through the records

Figure 1-19 | Navigation buttons

Navigation Button	Record Selected	Navigation Button	Record Selected
◄◄	First record	►►	Last record
◄	Previous record	►✳	New (blank) record
►	Next record		

Creating a Simple Query

- A **query** is a question you ask about the data stored in a database

- The **QBE (Query By Example)** window allows you to select records and fields quickly (and put in criteria, etc).
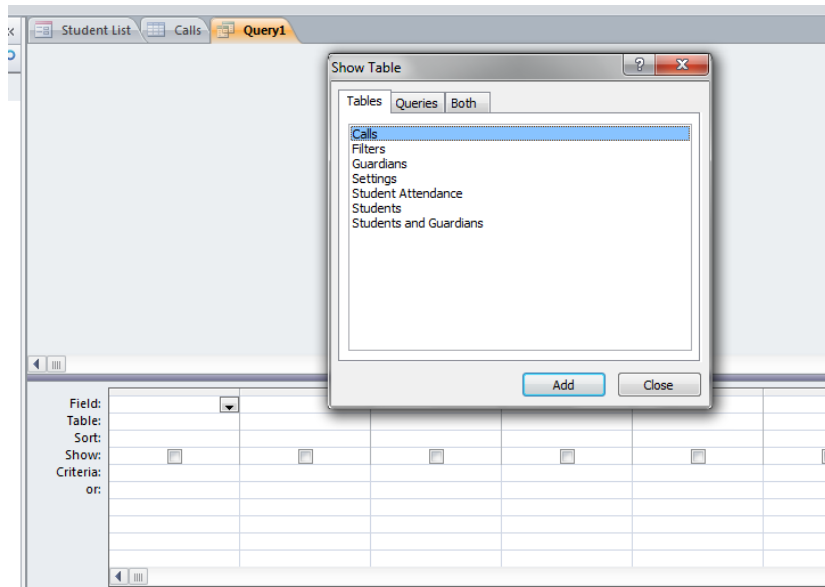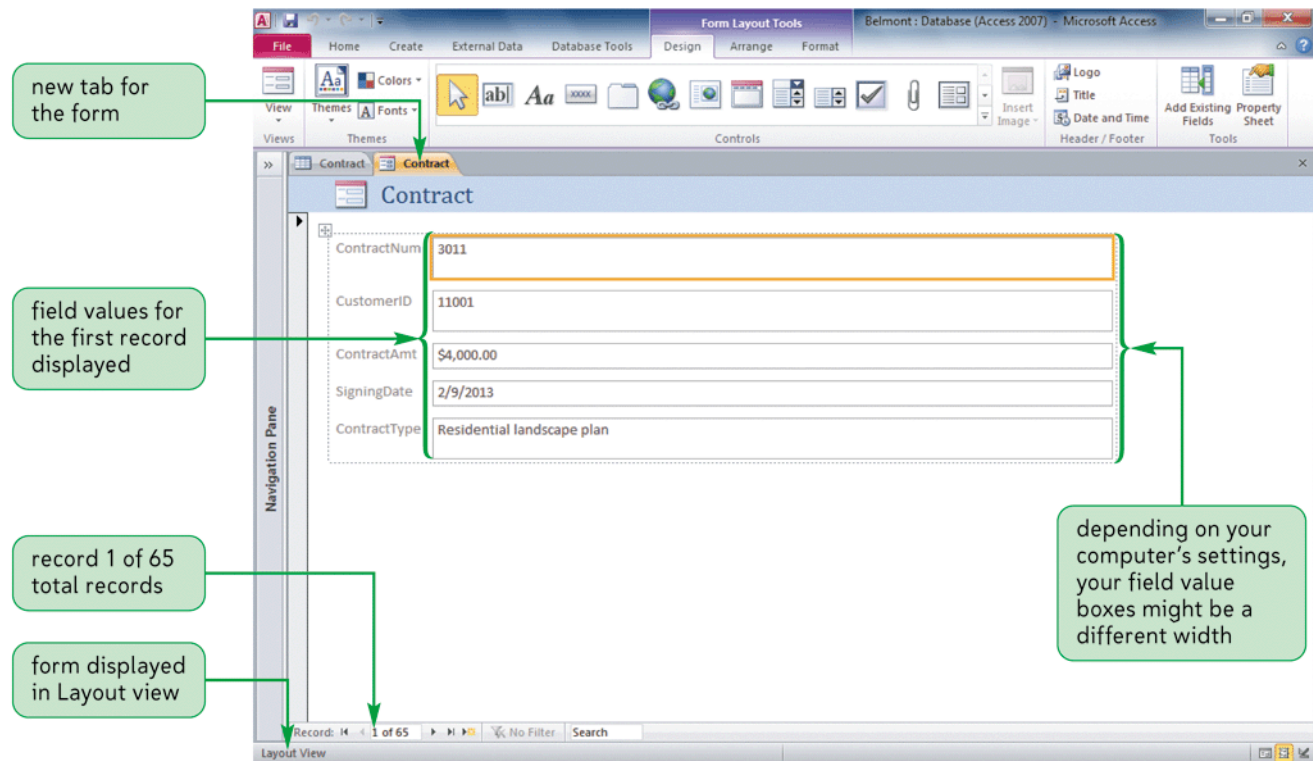
Creating a Simple Form

- A **form** is an object you use to enter, edit, and view records in a database; usually one record at a time

- You can design your own forms, use the Form Wizard, or use the **Form tool** to create a simple form quickly and easily

Creating a Simple Form

Figure 1-22   Form created by the Form tool

new tab for the form

field values for the first record displayed

record 1 of 65 total records

form displayed in Layout view

depending on your computer's settings, your field value boxes might be a different width

Creating a Simple Report

- A **report** is a formatted printout (or screen display) of the contents of one or more tables in a database

- The **Report tool** places all the fields from a selected table or query

Creating a Simple Report

Figure 1-23   Report created by the Report tool

current day, date, and time displayed (yours might differ)

column headings appear in a different font color
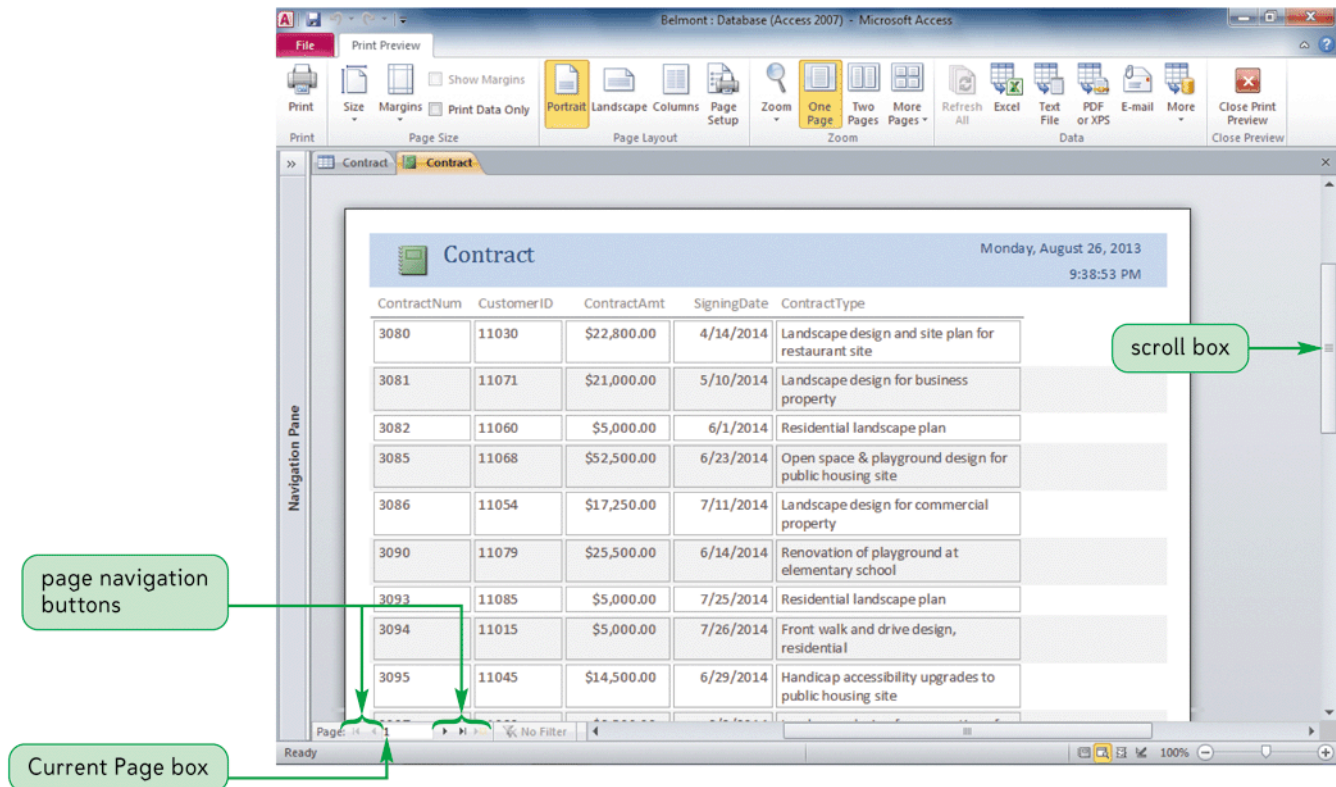
report graphic

borders around field values

report displayed in Layout view

dotted lines show the page edges

Creating a Simple Report

Figure 1-27   First page of the report in Print Preview

Viewing Objects in the Navigation Pane

Figure 1-28 Belmont database objects displayed in the Navigation Pane