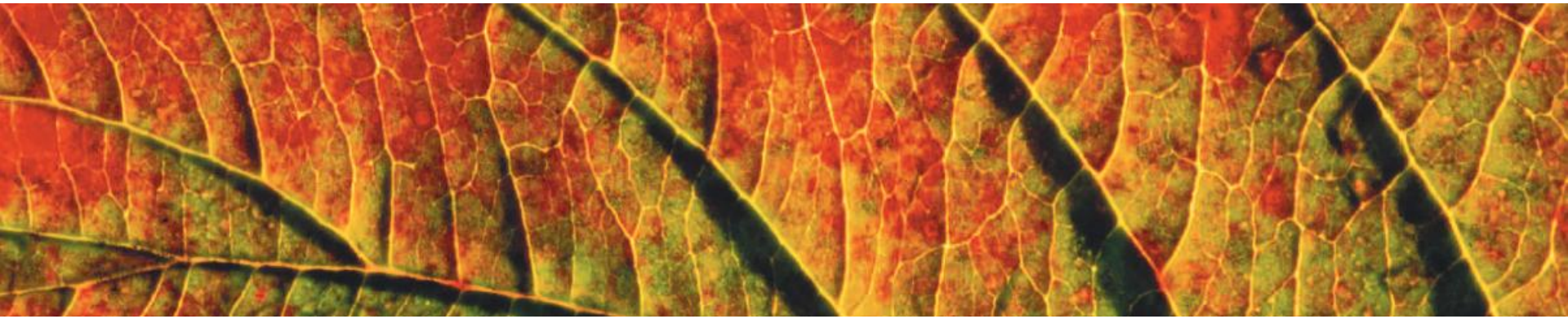
Access Tutorial 1

Creating a Database

Microsoft® Office 2010



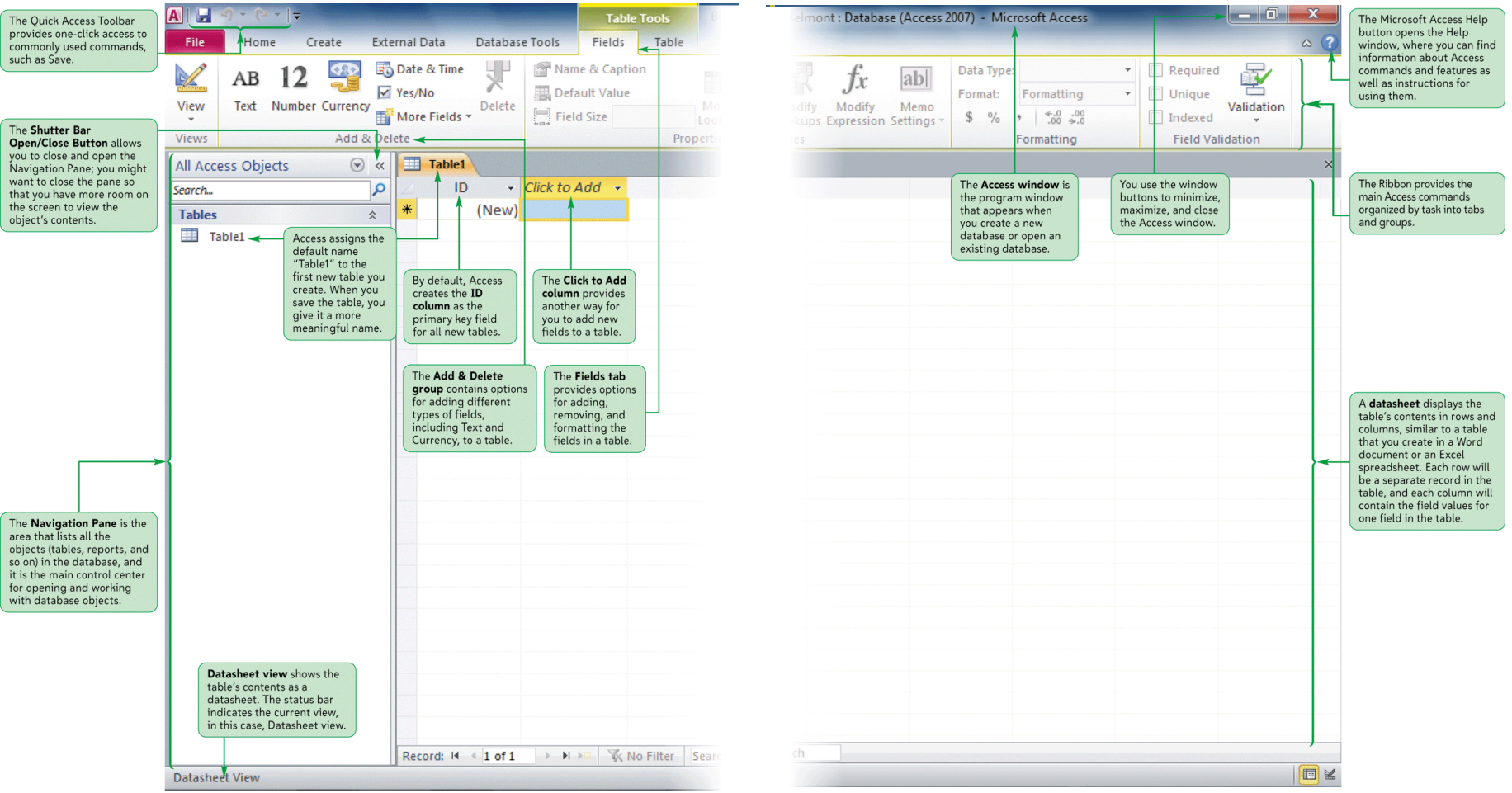
Objectives

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

Objectives

- Open an Access database
- Copy and paste records from another Access database
- Navigate a table datasheet
- Create and navigate a simple query
- Create and navigate a simple form
- Create, preview, navigate, and print a simple report
- Learn how to compact, back up, and restore a database

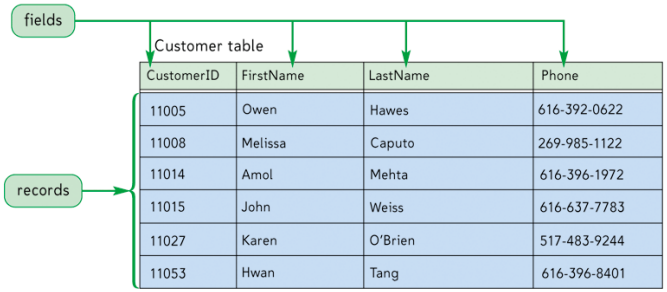
The Access Window



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



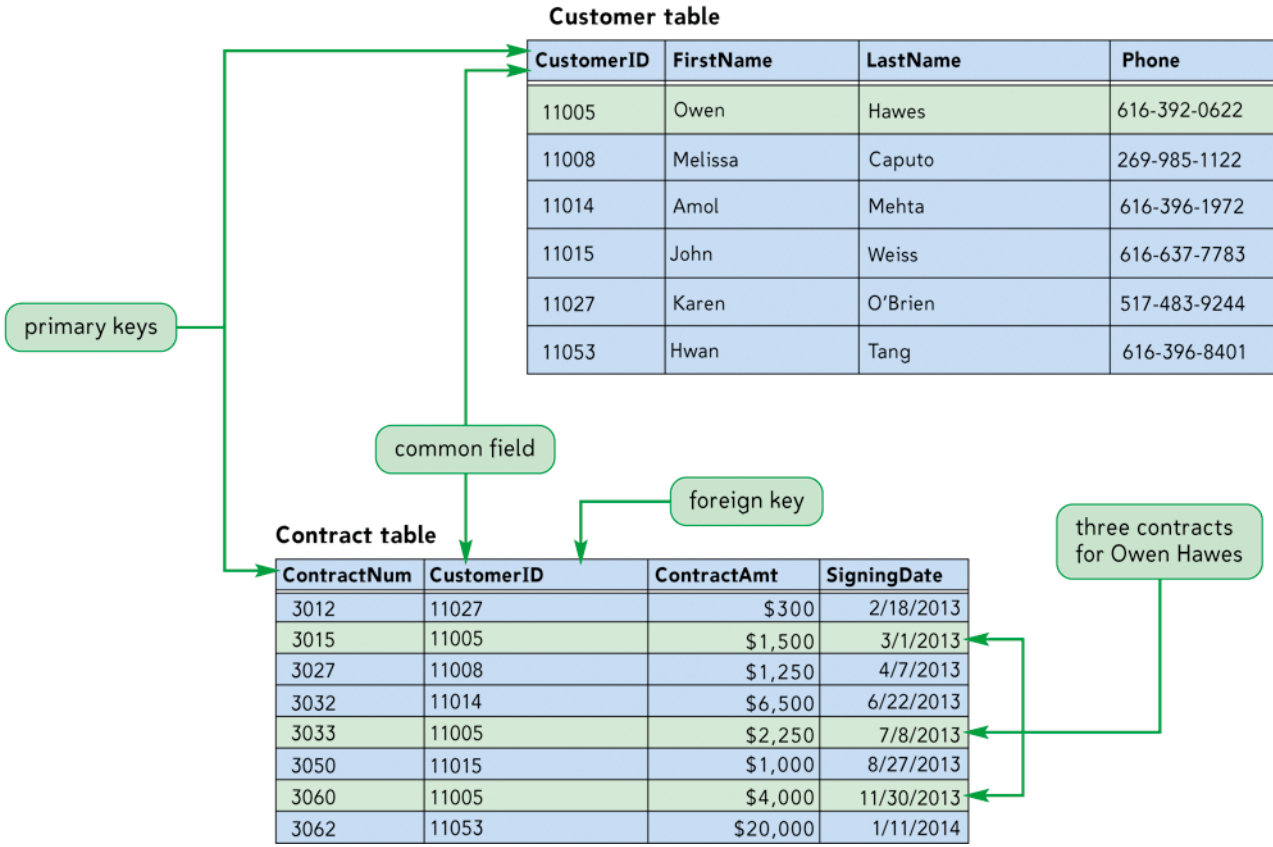
CustomerID	FirstName	LastName	Phone
11005	Owen	Hawes	616-392-0622
11008	Melissa	Caputo	269-985-1122
11014	Amol	Mehta	616-396-1972
11015	John	Weiss	616-637-7783
11027	Karen	O'Brien	517-483-9244
11053	Hwan	Tang	616-396-8401

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

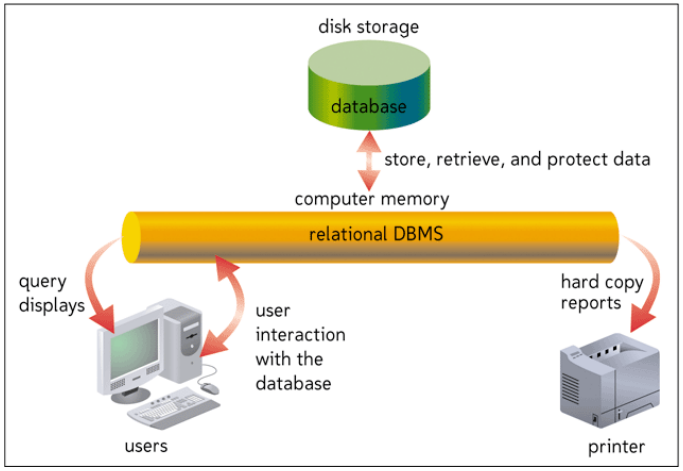
Figure 1-2 Database relationship between tables for customers and contracts



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 Datasheet View

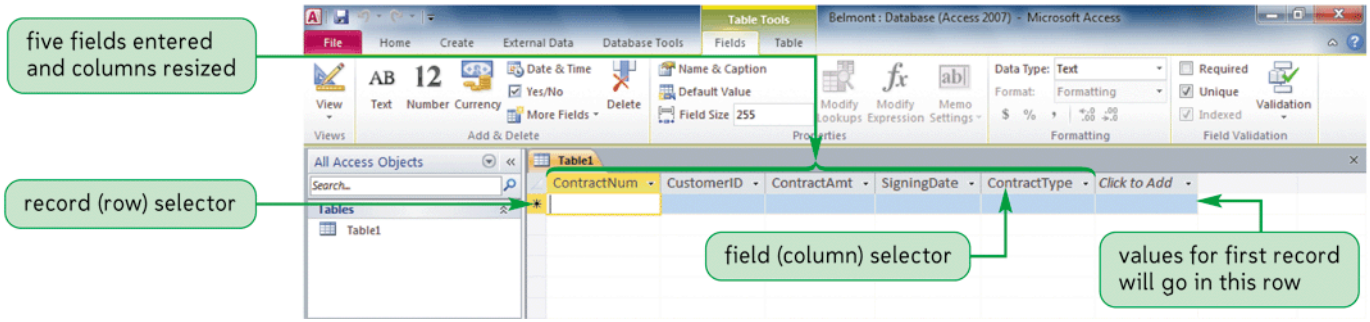
- Click the Create tab on the Ribbon
- In the Tables group, click the Table button.
- Accept the default ID primary key field with the AutoNumber data type, or rename the field and change its data type, if necessary.
- In the Add & Delete group on the Fields tab, click the button for the type of field 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 Datasheet 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

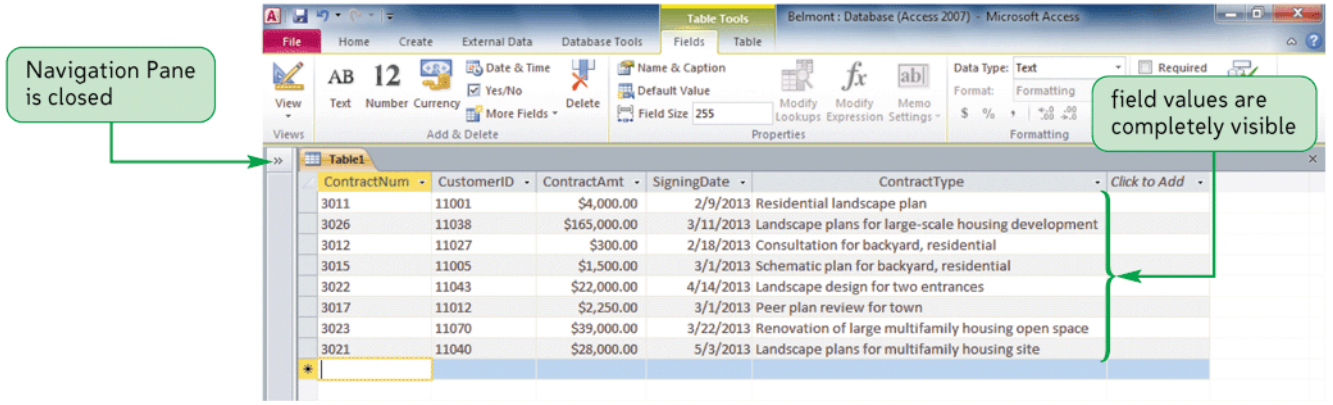
Creating a Table in Datasheet View

Figure 1-9 Table with all fields entered



Entering Records

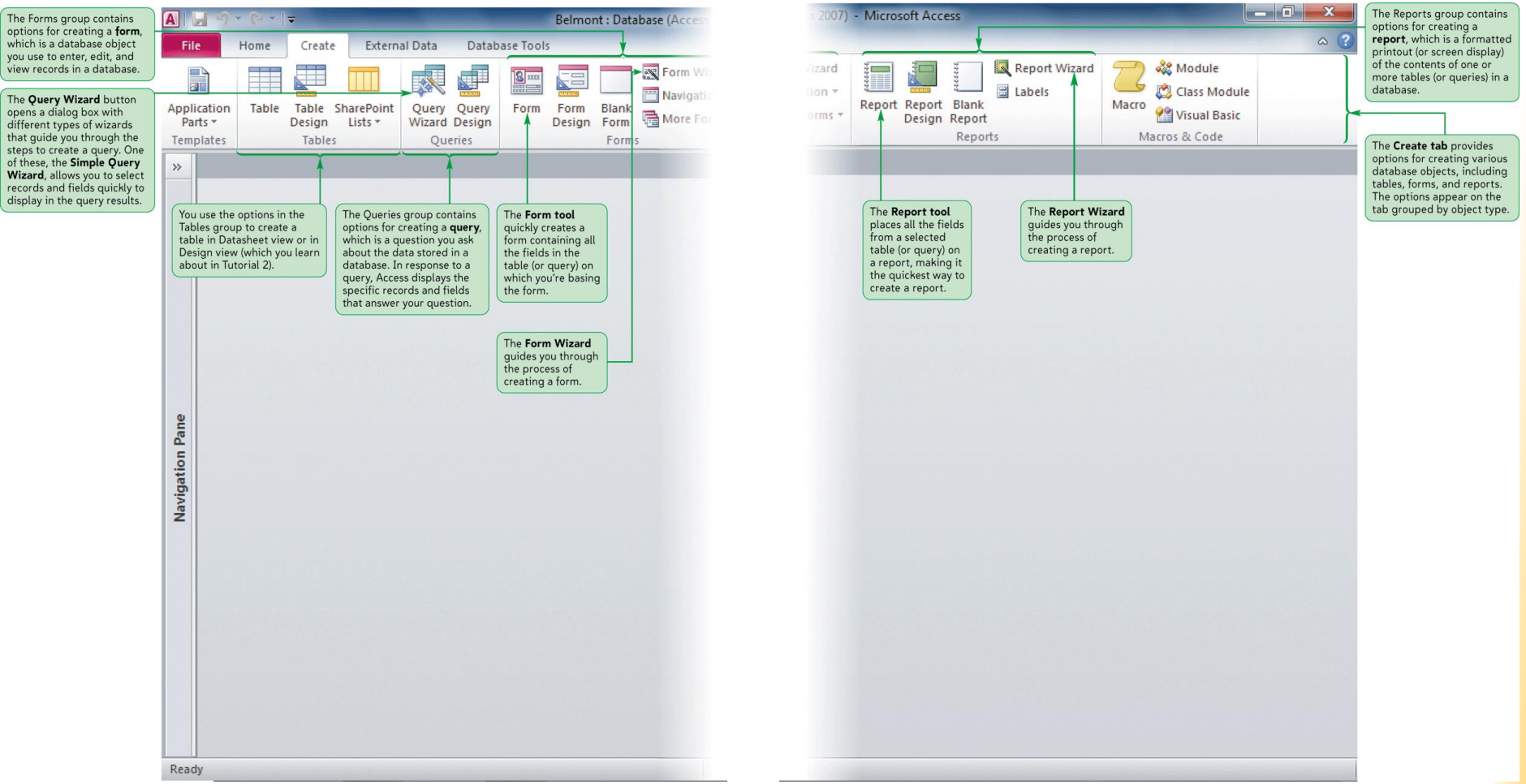
Figure 1-13 Datasheet with eight records entered



Saving a Table

- 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

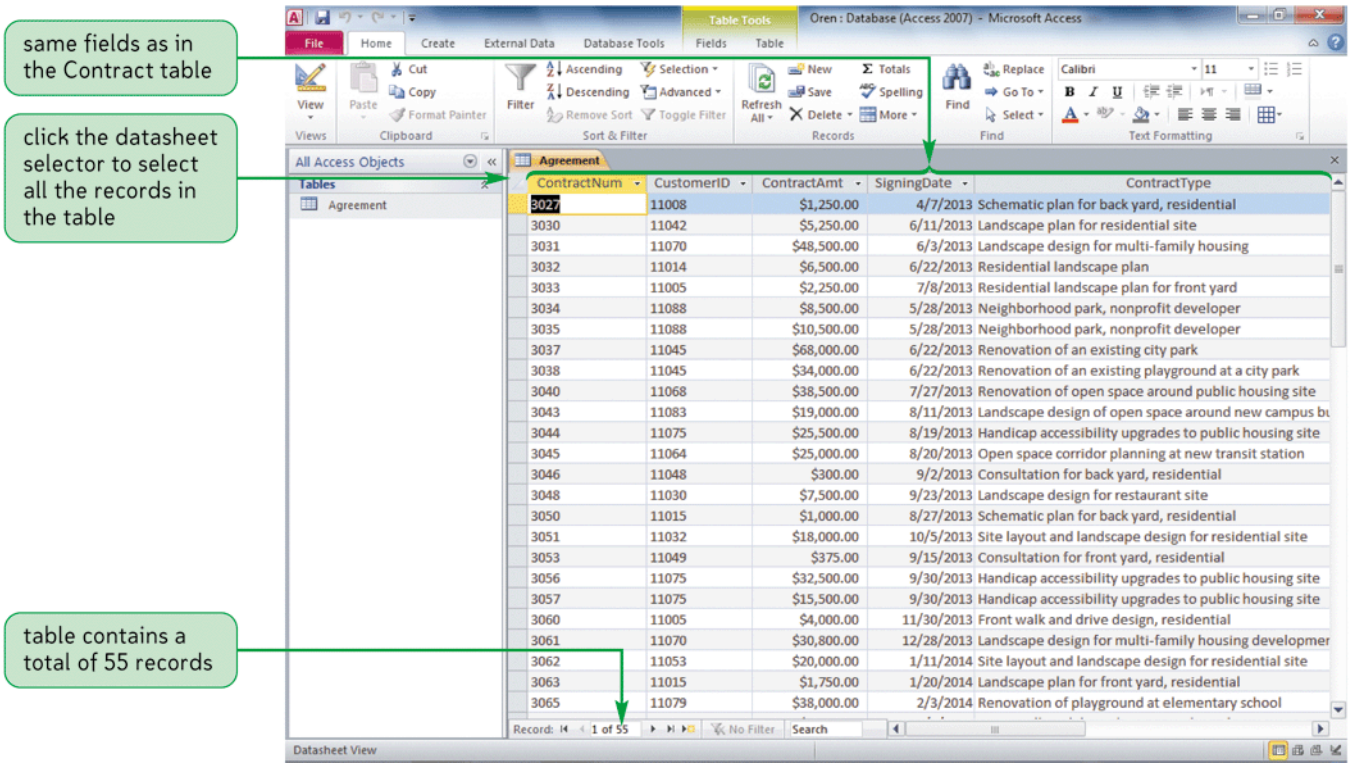


Opening a Database

- 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



Navigating a Datasheet

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

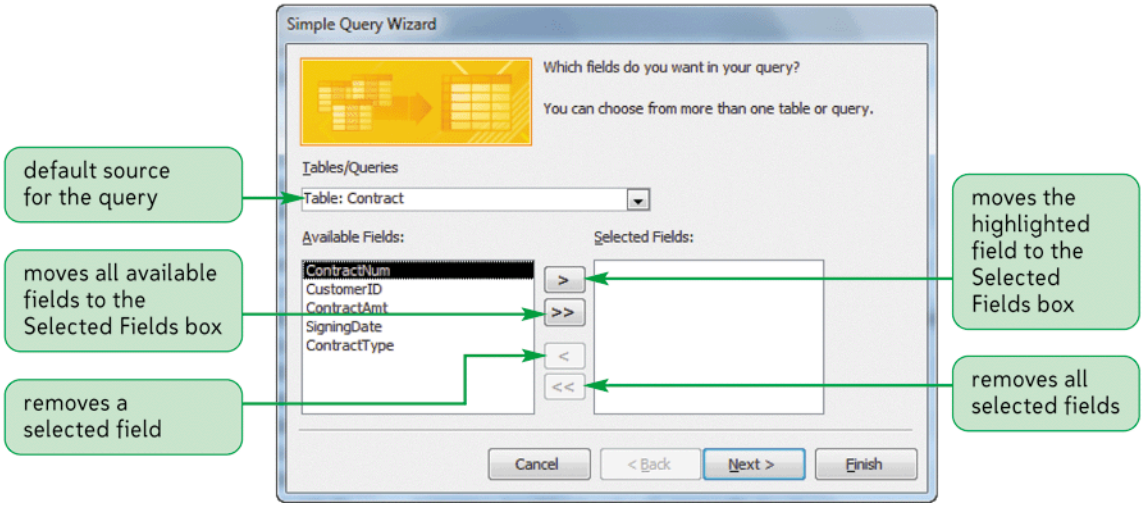
Figure 1-19 Navigation buttons

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 **Simple Query Wizard** allows you to select records and fields quickly

Figure 1-20 First Simple Query Wizard dialog box

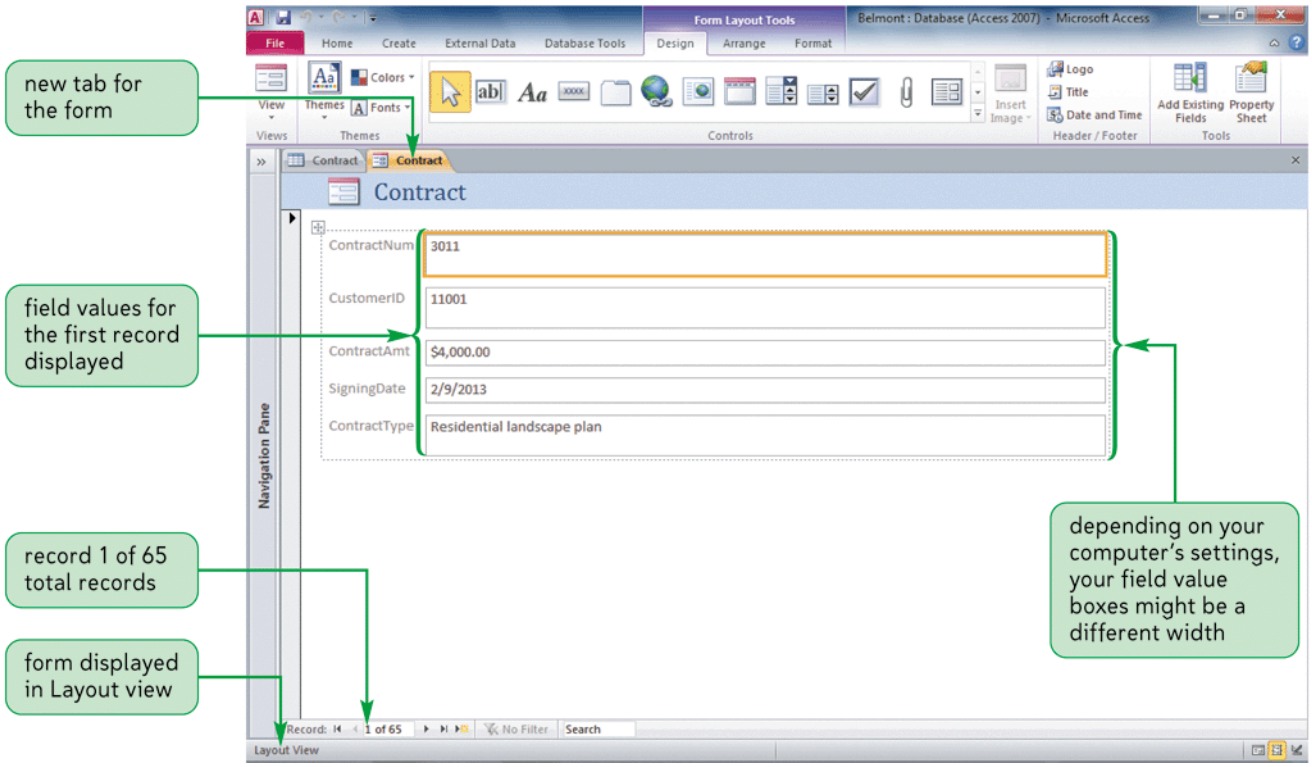


Creating a Simple Form

- A **form** is an object you use to enter, edit, and view records in a database
- 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

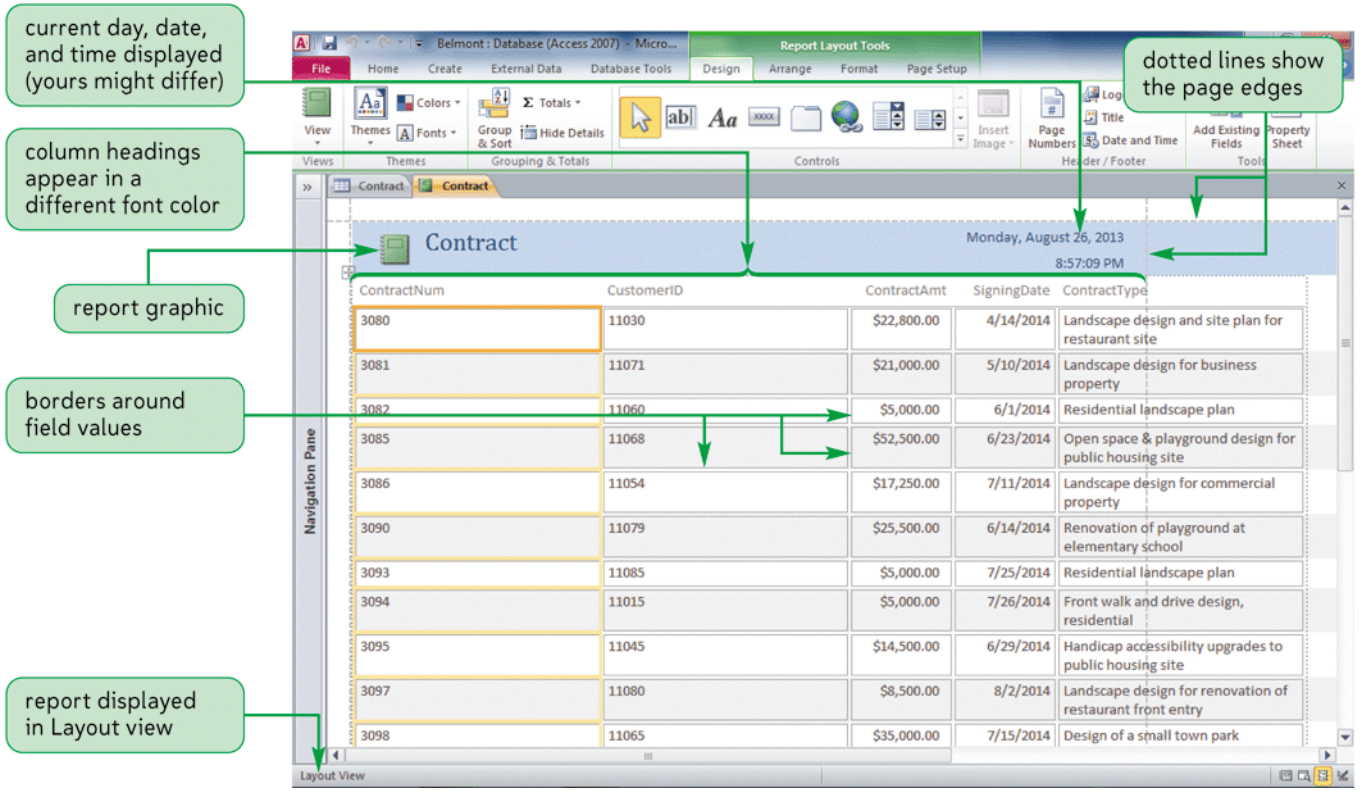


Creating a Simple Report

- 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

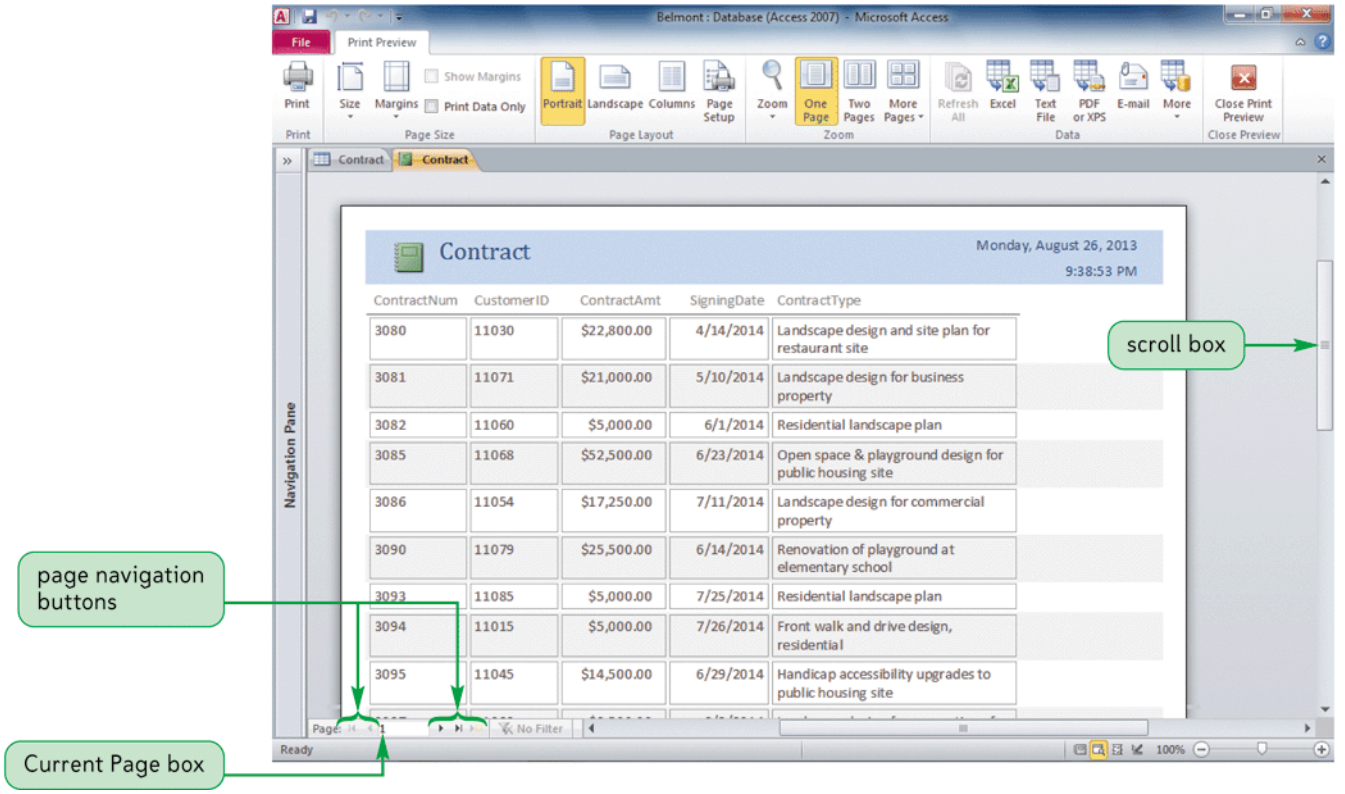
Figure 1-23 Report created by the Report tool



ContractNum	CustomerID	ContractAmt	SigningDate	ContractType
3080	11030	$22,800.00	4/14/2014	Landscape design and site plan for restaurant site
3081	11071	$21,000.00	5/10/2014	Landscape design for business property
3082	11060	$5,000.00	6/1/2014	Residential landscape plan
3085	11068	$52,500.00	6/23/2014	Open space & playground design for public housing site
3086	11054	$17,250.00	7/11/2014	Landscape design for commercial property
3090	11079	$25,500.00	6/14/2014	Renovation of playground at elementary school
3093	11085	$5,000.00	7/25/2014	Residential landscape plan
3094	11015	$5,000.00	7/26/2014	Front walk and drive design, residential
3095	11045	$14,500.00	6/29/2014	Handicap accessibility upgrades to public housing site
3097	11080	$8,500.00	8/2/2014	Landscape design for renovation of restaurant front entry
3098	11065	$35,000.00	7/15/2014	Design of a small town park

Creating a Simple Report

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



Printing a Report

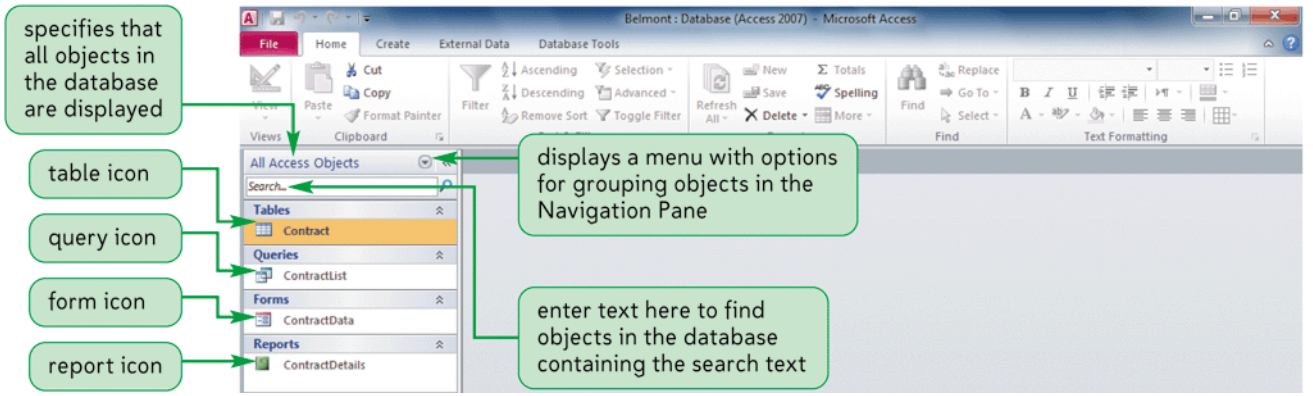
- Open the report in any view, or select the report in the Navigation Pane
- To print the report with the default print settings, click the File tab to display Backstage view, click the Print tab, and then click Quick Print

or

- To display the Print dialog box and select the options you want for printing the report, click the File tab, click the Print tab, and then click Print (or, if the report is displayed in Print Preview, click the Print button in the Print group on the Print Preview tab)

Viewing Objects in the Navigation Pane

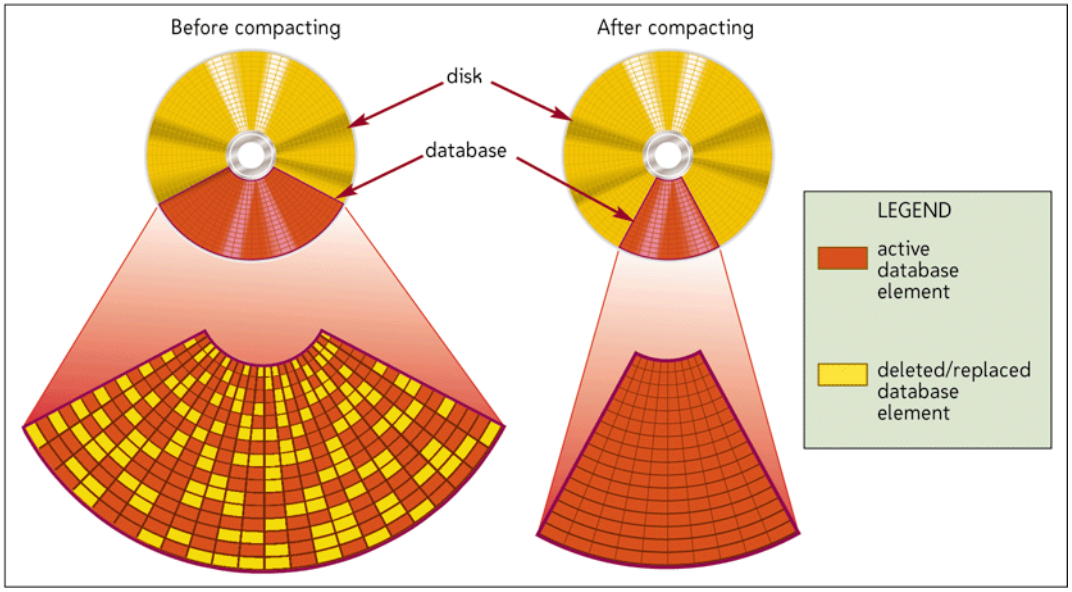
Figure 1-28 Belmont database objects displayed in the Navigation Pane



Compacting and Repairing a Database

- **Compacting** a database rearranges the data and objects in a database to decrease its file size

Figure 1-29 Compacting a database



Compacting and Repairing a Database

- Make sure the database file you want to compact and repair is open
- Click the File tab to display Backstage view
- Make sure the Info tab is selected in the navigation bar
- Click the Compact & Repair Database button

Backing Up and Restoring a Database

- **Backing up** a database is the process of making a copy of the database file to protect your database against loss or damage
- The Back Up Database command enables you to back up your database file from within the Access program, while you are working on your database