Nutzen Sie die Dettmer-Seminarunterlagen für Access bei einmaligem Kauf über Jahre hinaus für Ihre eigenen Schulungen

Aus technischen Gründen wurde in dieser Musterunterlage dieses Deckblatt zusätzlich eingefügt, und anders als im Original-Worddokument haben wir das Inhaltsverzeichnis am Ende platziert.
Darüber hinaus entsprechen hier auch die Kopf- und Fußzeilen nicht dem Original.

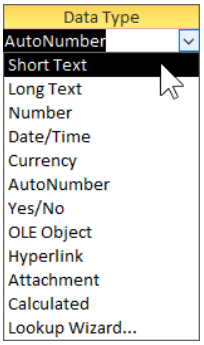
Dettmer Seminarunterlagen

Seminarunterlagen-Verlag Helmut Dettmer
Neuer Schafweg 12, D-76889 Kapellen
Telefon +49(0)6343 939 047
www.dettmer-verlag.de

20 Appendix

20.1 Data Types

On page 22, the data types have already been mentioned briefly and you have learned about them in your first table draft. The data type is used to determine, which contents a field is allowed to have and how this contents is to be interpreted. When you click into the **Data Type** column, a black drop-down arrow will appear. You can choose the data type from the list:



Data types

- **Short Text**
  This data type will surely be the one that is used most. You can enter virtually any characters into fields of the **Text** type. Typical fields are LastName, Street, City, or Phone.

  Please make sure that the field size of text fields is not too small or too large. There may be cases, in which not all data will fit into a field that is too small. However, fields that are too large are not useful as well, because the column width in tables, reports, and forms will initially be adjusted to the field length. You have to search for a suitable trade-off.

- **Long Text**
  Consider the memo fields as text fields without length restriction. Whenever you want to store texts with significant length differences or when the 255 characters of a Short Text field are not sufficient, you should use this data type.

- **Number**
  Numerical fields accept only characters that are used to represent numbers. Use this data type, when the numbers are used for calculating. In numerical fields, values like price, tax, discount, or invoice total are stored.

  Information such as PostalCodes or phone numbers should not be stored in number fields, as this information is not used for calculating. Moreover, leading zeros are eliminated in numerical fields, which may result in fatal errors with PostalCodes or phone numbers.

  With regard to the contents of numerical fields, the **E** character is an exception. It can be entered into numerical fields and is used as an exponent for representing very large or very small numbers. So, 1.00E+08 stands for the number of 100,000,000 (1 followed by 8 zeroes).

- **Date/Time**
  The name is self-explaining. In this data type, Access manages data values from January 1st, 1000, until December 31st, 9999. Entries are automatically checked for valid date or time values.

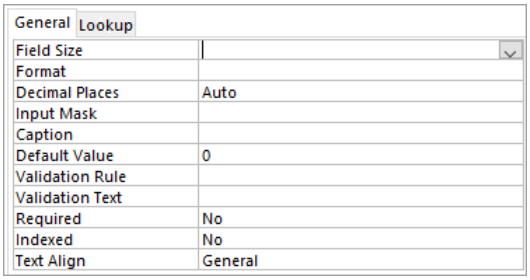
- **Currency**
  The currency field is also a numerical field. However, the number is shown including the currency symbol specified in the Windows control panel (page 51), for example, with **$** or **£**. Additionally, you can select the currency in the field properties (refer to next page) using the **Format** list box.

- **AutoNumber**
  For this data type, Access automatically enters the value, and it can be used for enumerating. Depending on the setting in the field properties, the value is incremented or a random number is generated for a new record. The field cannot be edited.

- **Yes/No**
  For this type, only the **Yes/No**, **On/Off**, or **True/False** values available.
- **OLE Object**
  In OLE-fields, objects originating from other applications (e.g. Excel spreadsheet, Word document) may be stored. Later on, you can edit the information stored in OLE fields. For editing, the application supporting the respective object is launched.
- **Hyperlink**
  This field is used to enter a file, email, or web link. In case of a link, you can switch to a location in another file, another application, or to a site on the World Wide Web (WWW).
- **Attachment**
  As with emails, you can add various files to a record, e.g. images, sound files, documents, video files, etc. Thus, this type is similar to the OLE-Object type.
- **Calculated**
  This data type is used to calculate values already in a table using a formula.
- **Lookup Wizard**
  Users open a combo or list box and select the entry from the list. This list is filled manually or using the Lookup Wizard. Example: for selecting the state, all states can be provided in the list.

20.2 Field Properties

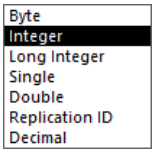
The field properties, too, have been introduced on page 22. When the field name and data type have been specified, use the mouse or the F6 key to switch between the upper and lower parts of the design grid (page 21). In the lower part, you set the properties of the current field. Depending on the data type, the available selection may differ:



Field Propperties

Field size

You can specify the field length between 1 and 255 only for **Short Text** fields. For the **Number** data type, select a value range and the number of decimals:



Number

Selection	Value range	Decimals
Byte	0 to +255	None
Integer	-32,768 to +32,767	None
Long Integer	±2 billion	None
Single	very large [1]	7
Double	huge [2]	15
Decimal	very large [1]	28

[1] Precise: $-3.4 * 10^{38}$ to $+3.4 * 10^{38}$

[2] Precise: $-1.797 * 10^{308}$ to $+1.797 * 10^{308}$

Only for the sake of completeness, the **Replication ID** setting for the **Number** data type is mentioned: This is an identifying number having a length of 16 bytes. This replication ID is also called **GUID** (Globally Unique Identifier).

For the other types, a size is given.

Format

This field is used to determine how the field contents are shown on the screen and on the printout. Beyond a number of default formats, you can also set up your own formats. When you select the **Currency** data type, the default setting from the Windows regional settings is used (page 51). Additionally, you can select the currency using the **Format** list box.

Input Mask

You can define exactly how the users are allowed to enter the data into a text field. You can determine the input format of a phone number, for example.

Caption

Used as column heading, otherwise the field name will appear.

Default Value

Used to determine the default setting when entering new data, e.g. the city in which most of the customers are situated. However, this value can easily be overwritten. For the **AutoNumber**, **OLE**, and **Attachment** types, a default value cannot be specified.

Validation Rule

The validation rule is used to set a condition for data input. For example, with the **Between 10 And 100** rule, values below 10 or above 100 cannot be entered.

Validation Text

A validation message is shown on the screen when the validation rule is violated during data input.

Required

This **Yes/No** selection is used to specify whether or not the user is required to enter data (required field).

Allow Zero Length

Specifies whether two quotation marks "" are accepted for data input. This property is provided for the **Short Text, Long Text** and **Hyperlink** fields.

Indexed

During indexing, Access generates an internal additional table in which information is arranged in proper order. For larger amounts of data to be searched, Access uses this table to find a particular record quickly. In addition to that, it can be specified whether duplicates are allowed to occur.

Unicode Compression

The Unicode character set includes the characters that are most commonly used all over the world. This character set allows many written languages to be represented in one character table. By means of the Unicode compression, Access saves some space when the database file is saved on the hard disk.

IME Mode and **IME Sentence Mode**

IME (Input Method Editor) allows Chinese, Japanese, and Korean characters to be entered or edited.

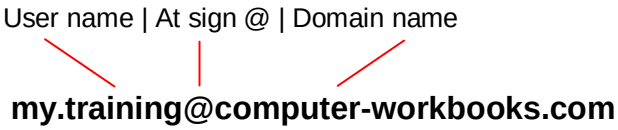
Text Align

You may also be familiar with text alignment in Word: Within a field, data is aligned **left**, **centered**, or aligned **right**. (In case you do not see this field property in the list, use the right-hand scroll bar to scroll down to the end.)

20.3 Specifics of email addressing

If you are not familiar with entering email addresses, please read the following tips.

An Internet email address is composed of three parts:



The domain name is divided into at least two elements, the web server name (owner name) and the top level domain (e.g. **com**, **uk** or **ca**).

The address must be entered accurately. Even the smallest discrepancy will prevent the addressee from receiving the email. In this case, the message is returned to the sender or you will get an error message.

For the notation of email addresses, please note the following:

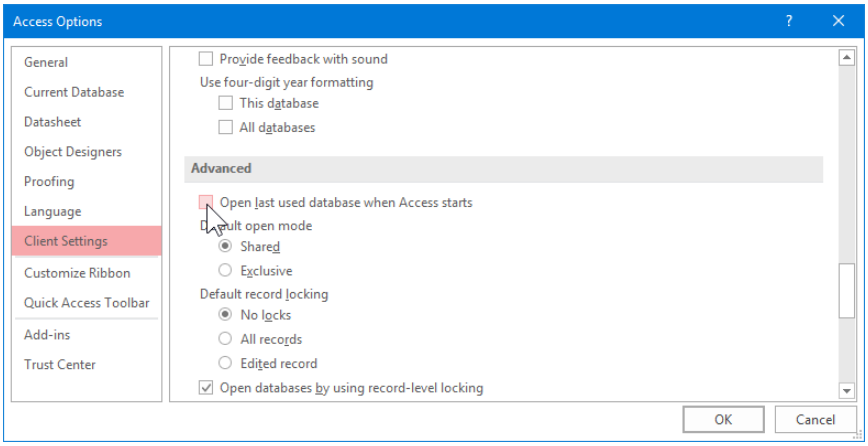
- Spaces are not used, but dots **.**, hyphens **-**, or underscores _. Particularly in case of hyphens or underscores, input errors may occur.
- Language specific special characters (e.g. German umlauts ä, ö ü) are now allowed. But these characters must actually occur in an email address! You cannot simply write **müller** instead of **mueller**. Moreover, the special characters are often supported only by the latest applications, e.g. Office 2016!

  For the **übungscomputer.de** domain name, you can enter **uebungscomputer.de** instead, but only because the training material publisher, which provides these two email addresses for training purposes, owns these two domain names.
- Basically, upper or lower case should be followed, but you can use lower case only, since the systems have become more and more user-friendly within recent years.

The @ character is called **commercial at** or simply **at** sign. This character indicates the beginning of the so-called domain name. A domain name may comprise more than two parts. The top level domain found at the rightmost side (.com) has the highest significance.

20.4 Start-up settings

After starting the program, either the last used database is opened or the Access start screen appears (page 8). You can set this in the **Access Options** window: **File** menu, Options button, **Client Settings**. If you want the start screen to appear, deactivate the respective check box ☐ at the lower edge of the following window:



Open the Access start screen or last used database

20.5 Customizing the Quick Access Toolbar

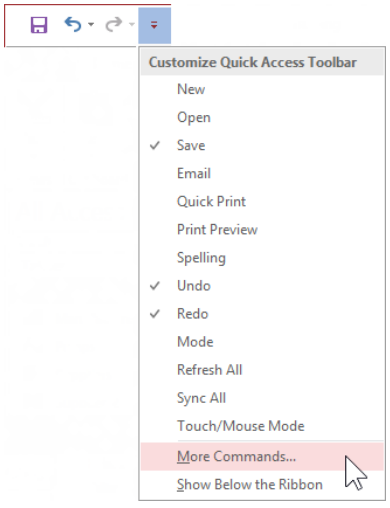
By default, the **Quick Access Toolbar** showing a few commands is placed in the upper left-hand section of the Access window. You can configure this bar as desired. For this configuration, nearly all Access commands are available.

Quick access

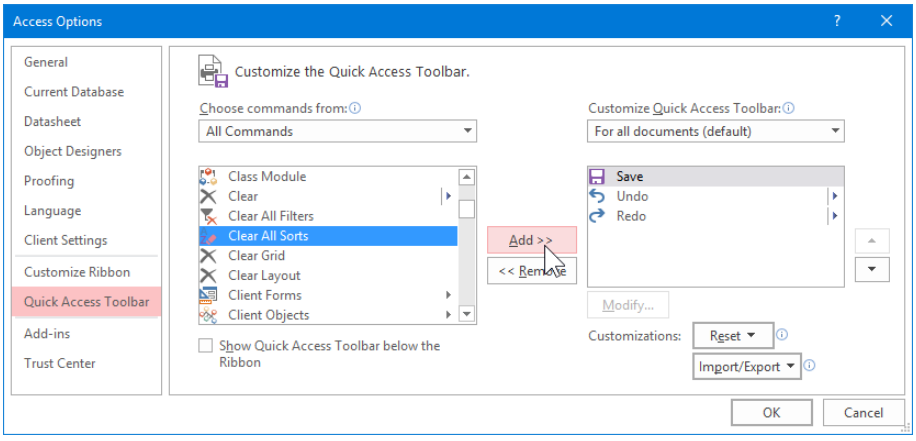
Moreover, you can place this toolbar below the ribbon, so it will occupy the entire width of the window. Thus, it will certainly provide enough space to accommodate your favorite icons.

For customizing, select the right-hand button on the Quick Access Toolbar. In the menu, enable or disable an icon.

In this menu, only a few icons are directly enabled. Use the **More Commands** command to open the **Access Options** window with the **Quick Access Toolbar** page:

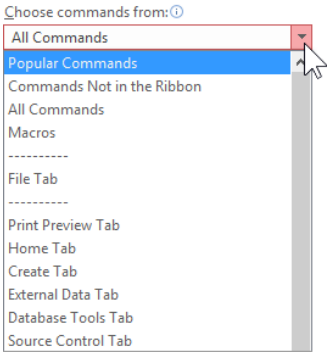


Customize the Quick Access Toolbar



Select a command and then click Add or Remove

At first, click the arrow in the **Choose Commands from** list and choose a category.



Select a category
(cut-out)

To add a new command (icon) to the toolbar, select that command in the list on the left-hand side and then click the Add button. To remove a command from the toolbar, select that command in the right-hand side list and then click the Remove button.

Use the arrows at the right-hand side to change the order of the icons in the bar.

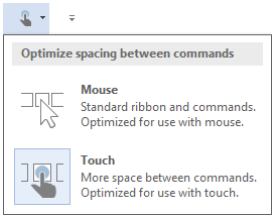
If you want to accommodate a large number of icons on this bar, it is best to place the bar below the ribbon.

A special feature in Office 2016 when using tablets

As already mentioned on page 14, there is an additional command on the Quick Access Toolbar if you use one of the Office programs on a tablet or if some other touch-sensitive screen is connected.

By clicking this symbol, you switch between touch and mouse mode to improve the ribbon for the corresponding input. Touch mode offers a little more space between the commands on the ribbon.

As far as the commands and groups on the ribbon are concerned, apart from a few exceptions, there is no difference between Office 2016 on a PC, a laptop or a tablet.



Menu of the Touch/
Mouse Mode icon

20.6 Setting the status bar

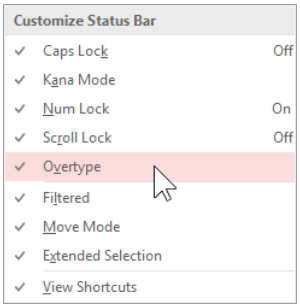
At the bottom of the Access program window, the status bar is found, which provides some information and setting options:

Status bar in Print preview

You can set the contents of the status bar as desired:

Right-click the status bar, which will open the menu shown on the right-hand side. Selecting one row will enable ✓ or disable an option.

Click outside the configuration menu to close the menu.



Set the status bar

15 Forms

Forms are a very powerful Access tool for entering and maintaining data as well as for automating procedures.

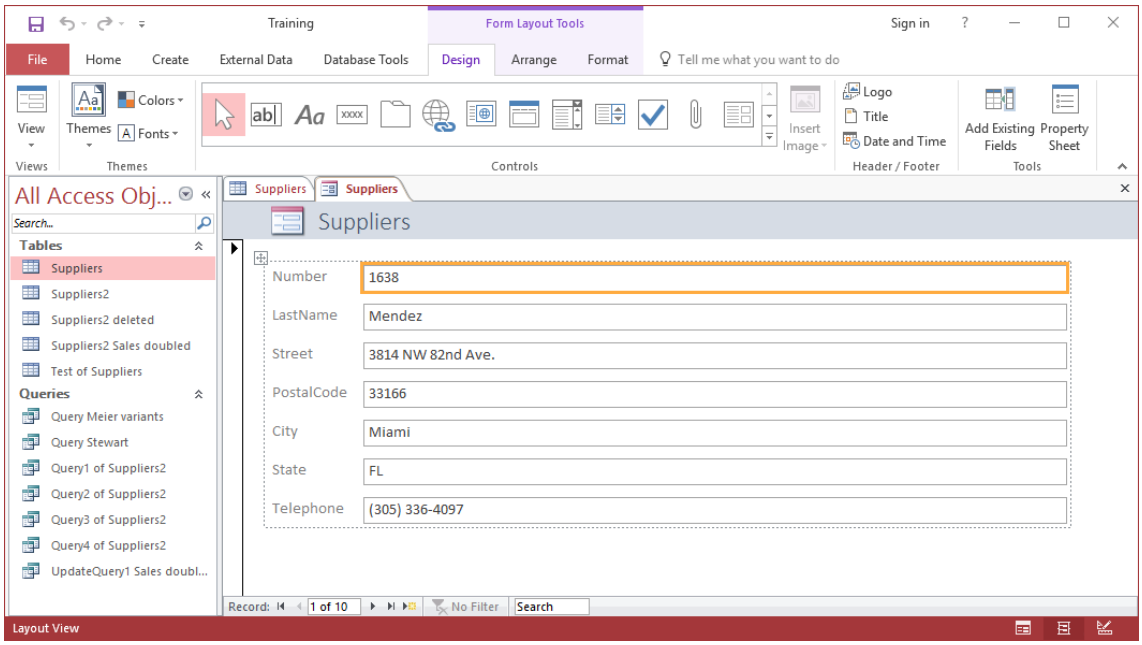
The major difference from the table representation is that the form mostly shows only one single record. This is not necessarily always the case. You can also create forms using the table representation. In contrast to the table representation, which is used to display a large amount of information in a very compressed manner, information can be provided in a significantly better structured way, when a single record is displayed.

Typically information that belongs together is presented next to each other in the form. Moreover, individual fields can be identified more easily by their preceding labels.

15.1 Creating an AutoForm

An **AutoForm** is a ready-to-use form – as convenient as it gets:

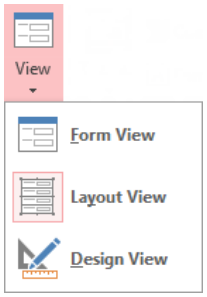
1. Close all object windows. Only the **Training** database window is not closed.
2. Open the first **Suppliers** table that was created on page 22 by double-clicking the name in the navigation pane.
3. On the **Create** tab, click the **Form** button (**Forms** group). Access now creates a very useful form of the opened table and opens it in the so-called Layout view:



Form in Layout view

In the title bar, you see the button for the context tools (**Form Layout Tools**) and below, the **Design**, **Arrange**, and **Format** tabs are located on the ribbon.

15.2 Form views



View change button

Access provides various view options for forms:

- Form view
- Layout view
- Design view.
- Print preview (using the **File** menu).

Form view
Form view is used to enter the data. A well-designed form can be more appropriate for entering data than the datasheet view of the table.

Layout view
In Layout view, you can continue designing the form, but you already see records with original data.

Design view
Design view is used to create and design your form as desired. When designing the form, the goal is to facilitate data entry. To achieve this, a number of tools is available. In Design view, you do not see any data, but only the so-called controls including the field names.

Print preview
Print preview additionally shows the form as it will be printed including the records. This view is opened using the **Print** page of the **File** menu (refer to page 40).

Save the form using the name **Suppliers Form1**. Then switch to Form view:

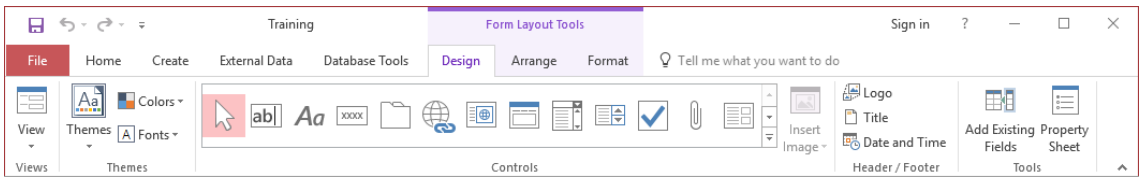
- On the **Home** or **Design** (**Form Layout Tools**) tabs, click the upper part of the **View** change button. Clicking the *lower* part ▾ opens an additional submenu. Select the **Form View** command.
- Or select **Form View** from the context menu.
- Or click the **Form View** icon at the bottom right-hand corner of the status bar  .

Form view is used to enter new data or to modify or delete existing data. To navigate between the fields and records, most of the commands are available as listed for Datasheet view from page 27 on. However, the significant difference from the table is that Form view shows only one record on the screen page.

Also, the **Sorting** and **Filtering** commands can be used in Form view without any restrictions.

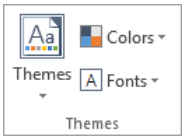
15.3 Modifying the appearance of the form

The appearance of the form can be changed in Layout view and in Design view. Now switch to Layout view.



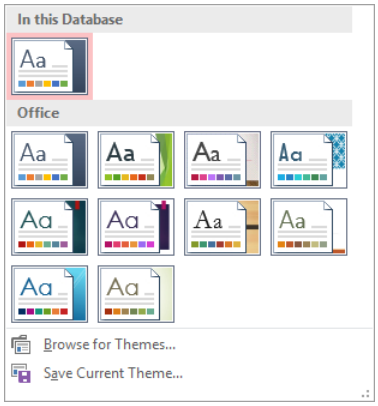
Design tab (Form Layout Tools)

The **Design**, **Arrange**, and **Format** tabs (**Form Layout Tools**) provide a number of options for adjusting the layout of the form as desired. Also, predefined formats are provided in the **Themes** group (**Design** tab).



On the Design tab

When you *point* to a theme in the gallery, the form is immediately displayed using the new formatting (live preview). *Select* the name to choose a theme. Use the remaining buttons (**Colors**, **Fonts**) of the **Themes** group to modify the current theme. The command for saving the modifications is located at the bottom of the Themes gallery. The modifications are saved as a user-defined Office Theme using the ***.thmx** (themes) file extension and can be used e.g. in Word or Excel as well.



Themes gallery

Selecting controls

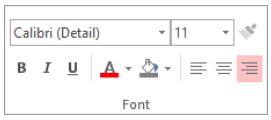
The themes are used to modify the appearance of the entire form as desired. If you want to modify only individual items, so-called controls, the respective item must be selected by clicking it. A selected item is identified by its thick, colored border.

The data including the preceding field names are displayed in a table. To select several table cells, hold the Shift key while selecting with the mouse.

When individual parts of the table are select, the ⊞ handle is shown in the *upper left-hand* corner of the table. You may already know this table handle from the text processing program Word. Click the table handle to select the entire table or use the Ctrl+A shortcut to select the entire form.

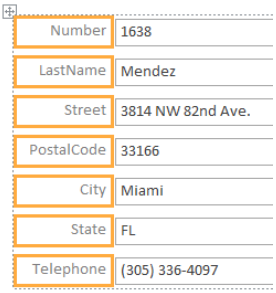
Modifying individual controls

To modify the **Font**, **Font Size**, or **Font Color** for the selected controls, select the respective buttons of the **Font** group on the **Format** tab (**Form Layout Tools**).



On the Format tab
(Form Layout Tools)

Icons are also available for **Alignment** and **Background Color**. If you, for example, want to right-justify the field names preceding the data boxes, first select the cell of the **Number** field name. While holding down the Shift key, select the cells below up to and including **Telephone**. Click the **Align Right** icon.



Right-aligned field names

Moving the table using the mouse

You can easily move the entire table to another position using the mouse:

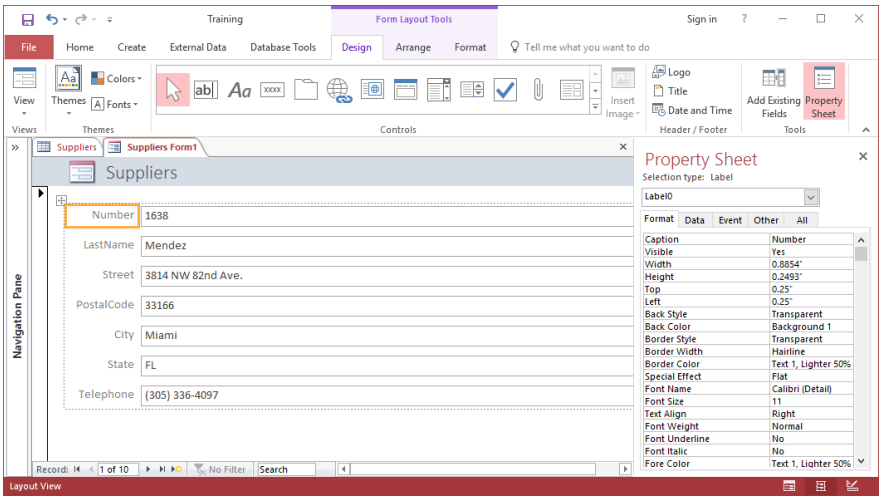
The table handle ⊞ has already been discussed. Place the mouse on this handle. You'll see an additional four-headed arrow at the mouse pointer. With the left mouse button held down, drag the table to the new position.

Properties

Access uses a list to display the properties of the currently selected control. To open this **Property Sheet** task pane, select:

- the **Property Sheet** button (**Form Layout Tools**) in the **Tools** group of the **Design** tab, or
- press the Alt+Enter shortcut, or
- right mouse button (context menu): **Properties**.

On the Design tab
(Form Layout Tools)



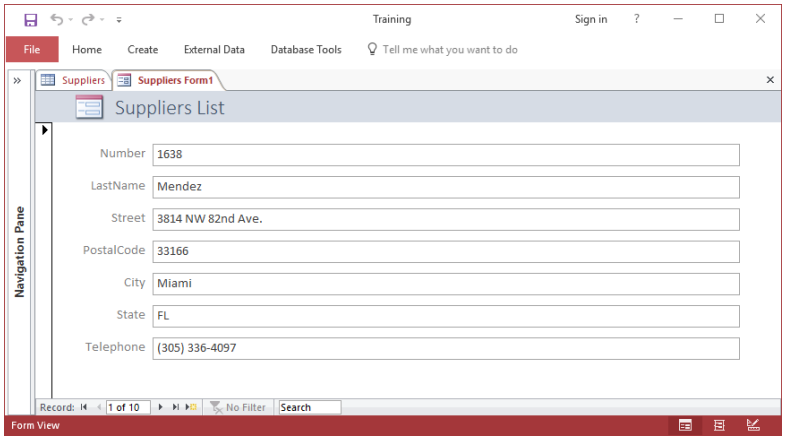
Form including the Property Sheet task pane

In the task pane, you can directly modify many properties by editing the existing value or by selecting a value from a list .

15.4 Inserting a title

A heading is to be positioned at the upper border of the form:

1. On the **Design** tab (**Form Layout Tools**) in the **Header/Footer** group, select the Title button. A large frame with selected text is inserted.
2. Type Suppliers List.
3. Switch to **Form View** and check the result:



Form including title and minimized ribbon (also refer to page 12)

4. If you want to modify the font of the title, return to Layout view.
5. Use the mouse to select the title and modify the font using the **Text Formatting** group on the **Home** tab.

15.5 Entering new records

As is the case with the datasheet view of a table or query, you can use the form to enter new records. Select one of the following commands to get a new, empty form page.

- **New** icon  in the **Records** group of the **Home** tab
- **New Record**  icon on the record toolbar at the bottom
- Ctrl++ shortcut.

As in the table view, complete the field entry by pressing the Enter key or Tab keys. When you press one of the two keys in the last field of the last record, a new, empty form page is opened. For moving within the form, most of the commands mentioned on page 27 apply as well.

15.6 Exercise

1. Save the form again using the name **Suppliers Form2**.
2. Design a form also for the **Suppliers2** table and save the new form using a name of your choice.

Table of Contents