Working with Databases and Objects

### Getting Started Window

- **To Create a Database:** Click a template category in the list and click the template you want to use. Click Create. Or, click the Blank Database button.

- **To Open an Existing Database:** Click a database in the Open Recent Database list or click More and browse for it.

### Access 2007 Screen

- **Office Button**
- **Ribbon**
- **Quick Access Toolbar**
- **Title bar**
- **Close button**

### Database Objects

- **Tables** store related data in rows (records) and columns (fields).
- **Queries** view, filter, calculate, change, sort, and examine the data stored in tables.
- **Forms** are custom screens that provide an easy way to enter and view data in a table.
- **Reports** present data from a table or query in a printed format.
- **Macros** automate common tasks and can be run by clicking a button or pressing a shortcut key.
- **Modules** are groups of procedures written in Visual Basic and used to automate tasks.

### Keyboard Shortcuts

#### General
- **Open a Database:** <Ctrl> + <O>
- **Close a Database:** <Ctrl> + <W>
- **Print Current View:** <Ctrl> + <P>
- **Delete:** <Delete>
- **Undo:** <Ctrl> + <Z>
- **Help:** <F1>
- **Delete Record:** <Ctrl> + <Delete>
- **Cancel Changes:** <Esc>
- **Insert Date:** <Ctrl> + ;
- **Insert Value from Same Field in Previous Record:** <Ctrl> + <Apostrophe>
- **Check Spelling:** <F7>
- **Switch Applications:** <Alt> + <Tab>

#### Navigation
- **Next Field:** <Tab>
- **Previous Field:** <Shift> + <Tab>
- **Next Screen:** <Page Down>
- **Previous Screen:** <Page Up>
- **First Record:** <Ctrl> + <↑>
- **Last Record:** <Ctrl> + <↓>
- **Toggle Navigation Pane:** <F11>

#### Editing
- **Cut:** <Ctrl> + <X>
- **Copy:** <Ctrl> + <C>
- **Paste:** <Ctrl> + <V>
- **Find:** <Ctrl> + <F>
- **Replace:** <Ctrl> + <H>
- **Select All:** <Ctrl> + <A>

#### Design View
- **Properties:** <Alt> + <Enter>
- **Open object in Design View:** <Ctrl> + <Enter>
- **Save Object:** <Ctrl> + <S>

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Creating Table Relationships

**Linking Tables** tells Access how two tables are related to each other. The fields that you use to link two tables must contain the same concept in two different tables. A primary key field from one table is often used when linking two tables.

1. Click the **Datasheet** tab on the Ribbon and click the **Relationships** button in the Relationships group.
2. If necessary, click the **Show Table** button in the Relationships group on the Design tab. In the Show Table window, select a table you want to link, click the **Add** button, and repeat for each table. Click **Close**.
3. Drag a field from one table and drop it on the related field in the second table. (Optional) Check the **Enforce Referential Integrity** box. Click **Create**.

Working with Table Data

- Database information can be directly added and modified from tables and some queries and forms.

- **To Add a Field to a Table**: Enter data in the cell below the Add New Field column header. Or, click and drag a field from the Field Templates pane to the table (to display the Field Templates pane, click the **Datasheet** tab on the Ribbon and click the **New Field** button in the Fields & Columns group).

- **To Add a New Record**: Enter data in the bottom row of the table.

- **To Select a Record**: Click the **Record selector** to the left of the record.

- **To Delete a Record**: Select the record, click the **Home** tab on the Ribbon and click the **Delete** button in the Records group. Click **Yes**.

- **To Spell Check**: Click the **Home** tab on the Ribbon and click the **Spelling** button in the Records group.

- **To Find Information**: Place the cursor in the field that contains the value you want to search for, click the **Home** tab on the Ribbon and click the **Find** button in the Find group or press `<Ctrl>` + `<F>`. Type the value you want to search for in the **Find What** box and click **Find Next**.

- **To Replace Information**: Place the cursor in the field that contains the value you want to replace, click the **Home** tab on the Ribbon and click the **Replace** button in the Find group or press `<Ctrl>` + `<H>`. Type the value you want to search for in the **Find What** box and the new value in the **Replace With** box. Click **Find Next** until you’ve found what you’re looking for, then click **Replace** or **Replace All** to replace every instance of the value.

- **To Sort Information**: Place the cursor in the field that you want to sort by, click the Home tab and click either the **Ascending** or **Descending** button in the Sort & Filter group.

- **To Filter Information**: Place the cursor in the field that contains the values you want to filter by, click the **Home** tab on the Ribbon and click the **Filter** button in the Sort & Filter group. Check the boxes for the values you want to filter for.

- **To Remove a Filter**: Click the **Toggle Filter** button in the Sort & Filter group.

- **To Change a Field’s Data Type**: Select the field you want to change, click the **Datasheet** tab on the Ribbon, and click the **Data Type** list arrow in the Data Type & Formatting group. Select a data type.

### Field Data Types

<table>
<thead>
<tr>
<th>Data Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Text (Default)</strong></td>
<td>Stores text, numbers, or a combination of both, up to 255 characters long.</td>
</tr>
<tr>
<td><strong>Memo</strong></td>
<td>Stores long text entries—up to 64,000 characters long.</td>
</tr>
<tr>
<td><strong>Number</strong></td>
<td>Stores numbers that can be used in calculations.</td>
</tr>
<tr>
<td><strong>Date/Time</strong></td>
<td>Stores dates, times, or both.</td>
</tr>
<tr>
<td><strong>Currency</strong></td>
<td>Stores numbers and symbols that represent money.</td>
</tr>
<tr>
<td><strong>AutoNumber</strong></td>
<td>Automatically fills in a unique number for each record.</td>
</tr>
<tr>
<td><strong>Yes/No</strong></td>
<td>Stores only one of two values, such as Yes or No.</td>
</tr>
<tr>
<td><strong>OLE Object</strong></td>
<td>Stores objects created in other programs, such as a graphic, Excel spreadsheet, or Word document.</td>
</tr>
<tr>
<td><strong>Hyperlink</strong></td>
<td>Stores clickable links to Web pages on the Internet or files on a network.</td>
</tr>
<tr>
<td><strong>Lookup Wizard</strong></td>
<td>A wizard that helps you create a field whose values are selected from another table, query, or list of values.</td>
</tr>
<tr>
<td><strong>Attachment</strong></td>
<td>Allows you to attach files and images to your database.</td>
</tr>
</tbody>
</table>

### The Design Query Window

To add a field to the query, click and drag it from the table down to the design grid. The queried tables appear here. You can also link tables.

#### Criteria rows

- **Criteria rows**
- **Sort order**
- **Show results**
- **Criteria**
- **Design grid**

- **To Create a Select Query**: Click the **Create** tab on the Ribbon and click the **Query Wizard** button in the Other group. Click **Simple Query Wizard** and click **OK**. Follow the onscreen instructions to select the fields you want to use from the desired tables and create the query. If you want to filter records, view the query in Design view and enter the criteria in the Criteria row.

- **To Switch Views**: Click the **Home** tab on the Ribbon and click the **View** button in the Views group.

- **To Summarize Values**: Open the Query in Datasheet View, click the **Home** tab on the Ribbon and click the **Totals** button in the Records group. Click the list arrow in a column in the Total row in the query select a calculation type (Sum, Average, etc.).

#### Criteria Example

| “London” | Displays records where the field equals “London.” |
| Between 1/1/00 and 12/31/00 | Displays records where the date is between 1/1/00 and 12/31/00. |
| NOT “USA” or <= “” | Displays records where the field does not contain the text “USA” and is not blank. |
| Like “S” | Displays records where the field text starts with an “S.” |
| IS NULL | Displays records where the field is blank. |
| IS NOT NULL | Displays records where the field is not blank. |
| >100 | Displays records whose field value is greater than 100. |