



## Using Microsoft® Office Access 2007 - Course Outline

### *Assumed Skills*

- Ribbon UI
- Navigating a database by using the navigation pane
- Understanding object types and purposes
- Basic database concepts

### *Assumed Knowledge*

- Basic database concepts

## 1. Structuring a Database

### 1.1. Define data needs and types.

#### 1.1.1. Define the fields for each table.

- Establish which data needs to be stored and which should be calculated at run time.
- Identify fields appropriate for Boolean operators

#### 1.1.2. Define appropriate data types for fields in each table.

(NOTE: Point of caution: multi-value fields.)

- Select a text or number field for the appropriate situation.
- Select the correct number type.
- When to use currency versus number.
- When to use a memo field.

#### 1.1.3. Define the tables in the database.

- Define tables based on available data. (Define 3NF tables.)
- Decide whether data should be linked to or imported from external sources.
- Create tables that do not contain repeating groups

### 1.2. Define table relationships.

#### 1.2.1. Define relationships between tables.

- One to one.



- One to many.
  - 1.2.2. Modify relationships between tables.
    - Enforce referential integrity.
    - Cascade update.
    - Cascade delete.
    - Define join type.  
(NOTE: As distinguished from ad-hoc joins created in the query editor.)
  - 1.2.3. Print table relationships.
  - 1.3. Create and modify primary keys.**
    - 1.3.1. Define and modify a primary key.
      - Default AutoNumber key.
      - Define a data field as the primary key.
    - 1.3.2. Define and modify a multi-field primary key.
  - 1.4. Split a database.**
    - to overcome size restrictions.
    - multi-user applications.
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- 2. Creating and Formatting Database Elements**
- 2.1. Create a database.**
    - 2.1.1. Create a database by using a template.
    - 2.1.2. Create a blank database.
  - 2.2. Create a table.**
    - 2.2.1. Create a custom table in Design view.
    - 2.2.2. Create a table by copying the structure of another table.
    - 2.2.3. Create a table from a template.
  - 2.3. Modify a table.**
    - 2.3.1. Modify table properties.
    - 2.3.2. Evaluate table design by using the Table Analyzer.
    - 2.3.3. Rename a table.
    - 2.3.4. Delete a table.
    - 2.3.5. Summarize table data by adding a Total row.
  - 2.4. Create fields and modify field properties.**



- 2.4.1. Create commonly used fields.
  - Create a text field.
  - Create a number field.
  - Create a date/time field.
  - Create a currency field.
  - Create an auto number field.
  - Create a yes/no field.
  - Create a memo field.
- 2.4.2. Modify field properties.
  - Define input masks for fields.
  - Define text length.
  - Allow zero length.
  - Set memo field as append only.
  - Set data validation rules.
- 2.4.3. Create and modify a multi-value field.
  - NOTE: Issue with upsizing; could cause problems.
- 2.4.4. Create and modify an attachment field.
  - Multiple attachments.
  - Assign attachment data type to a field.
- 2.5. Create a form.**
  - 2.5.1. Create a form by using Design view.
  - 2.5.2. Create a datasheet form.
  - 2.5.3. Create multiple item form.
  - 2.5.4. Create a split form.
  - 2.5.5. Create a subform.
  - 2.5.6. Create a PivotTable form.
  - 2.5.7. Create a form by using Layout view
  - 2.5.8. Create a simple form.
- 2.6. Create a report.**
  - 2.6.1. Create a report as a simple report.
  - 2.6.2. Create a report by using the Report Wizard.
  - 2.6.3. Create a report by using Design view.
  - 2.6.4. Define group headers.
  - 2.6.5. Create aggregate fields.



2.6.6. Create the print layout.

- Avoid excess pages, etc., basic print and layout skills.
- Keep data together in a printed report.
- Design and arrange a report in Layout view.

2.6.7. Create labels by using the Label Wizard.

## **2.7. Modify the design of a report or form.**

2.7.1. Add a control.

- Add fields from a table as a control.
- Add a control by using the Ribbon.

2.7.2. Bind a control to a field.

2.7.3. Define the tab order of controls.

2.7.4. Format controls.

- Change control formatting (for example, number to currency).
- Change font color.
- Change foreground color.

2.7.5. Arrange controls.

- Group controls.
- Align controls.
- Anchor controls.

2.7.6. Create conditional formatting on controls.

2.7.7. Apply AutoFormat to a form or report.

## **3. Entering and Modifying Data**

### **3.1. Enter, edit, and delete records.**

- Edit a record.
- Delete a record.

### **3.2. Navigate among records.**

- Move to a specific record.
- Move to the first or last record.

### **3.3. Find and replace data.**

- Find by using criteria.
- Find by using wildcards.
- Replace data.



### **3.4. Attach documents to and detach from a record.**

- Attach multiple attachments to a record.
- Attach a file to a record.
- Detach an attachment from a record.
- Export an attachment.
- Navigate attachments.

### **3.5. Import data.**

- 3.5.1. Import data from a specific source.
  - Import Microsoft Excel data.
  - Import CSV data.
- 3.5.2. Link to an external data source.
  - Link to an Excel spreadsheet.
- 3.5.3. Save and run import specifications.

## **4. Creating and modifying queries**

### **4.1. Create a query.**

- 4.1.1. Create a query based on a single table.
  - Add a field to a query.
  - Add all fields from a table to a query.
  - Find duplicates.
- 4.1.2. Create a query based on more than one table.
  - Identify from which table to draw a field. (NOTE: When two tables have fields with the same name.)
  - Find unmatched records.
- 4.1.3. Create action queries.
  - Create a MAKE TABLE query.
  - Create an INSERT query.
  - Create an APPEND query.
  - Create a DELETE query.
- 4.1.4. Create a crosstab query.
- 4.1.5. Create a subquery.
- 4.1.6. Save a filter as a query.



## **4.2. Modify a query.**

4.2.1. Add a table to and remove a table from a query.

- Add a table to a query.
- Remove a table from a query.
- Add a second copy of a table to a query.

4.2.2. Add criteria to a query.

- Hard-coded criteria.
- Parameters.

4.2.3. Create a join.

- INNER (Join Properties dialog box: option 1).
- LEFT (Join Properties dialog box: option 2).
- RIGHT (Join Properties dialog box: option 3).

4.2.4. Create a calculated field in a query.

- Add a field to a calculation.
- Use arithmetic operator (ex. \*,+,-).

4.2.5. Add an alias to a query field.

4.2.6. Create aggregated queries.

- Create sum.
- Create average.
- Create min/max.
- Create count.

## **5. Presenting and Sharing Data**

### **5.1. Sort data.**

5.1.1. Sort data within a report.

5.1.2. Sort data within a query.

5.1.3. Sort data within a form.

5.1.4. Sort data within a table.

### **5.2. Filter data.**

5.2.1. Filter data within a query.

5.2.2. Filter data within a table.

5.2.3. Filter data within a report.

5.2.4. Filter data within a form.



5.2.5. Remove a filter.

**5.3. Create and modify charts.**

5.3.1. Create a chart.

5.3.2. Format a chart.

5.3.3. Change chart types.

**5.4. Export data.**

5.4.1. Export data from a table.

5.4.2. Export data from a query.

5.4.3. Save and run export specifications.

**5.5. Save a database object as another file type.**

- Save as an XPS file.
- Save as a PDF file.

**5.6. Print a database object.**

- Print all.
- Print a selection.

**6. Managing a Database**

**6.1. Perform routine database operations.**

6.1.1. Back up a database.

6.1.2. Open a database.

- Open a database exclusively.
- Open a database with shared access.

6.1.3. Compact and repair a database.

6.1.4. Save a database as a previous version.

**6.2. Manage a database.**

6.2.1. Reset or refresh table links by using the Linked Table Manager.

6.2.2. Configure database options.

- Enable error checking.
- Show/Hide navigation pane.
- Set up startup display form.

6.2.3. a database by using a password.

6.2.4. Set database properties.

- Populate a property.



- Create a custom property.
- 6.2.5. Identify object dependencies
- Note(from advanced tools tab).
- 6.2.6. Print database information by using the Database Documenter.