

## Access 2007 Tabs

### Home



### Create



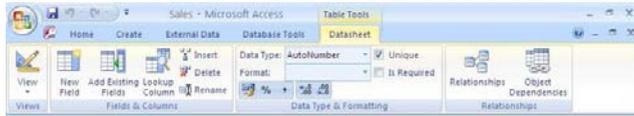
### External Data



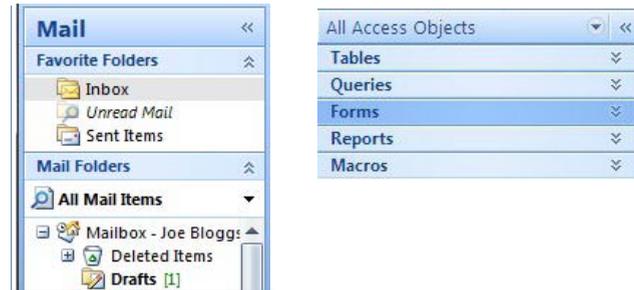
### Database Tools



### Datasheet



### Navigation Pane



## Certification Test Goals

This module sets out essential concepts and skills relating to understanding the concept of a database and demonstrating competence in using a database.

Successful candidates will be able to:

- Understand what a database is and how it is organized and operated.
- Create a simple database and view the database content in various modes.
- Create a table, define and modify fields and their properties; enter and edit data in a table.
- Sort and filter a table or form; create, modify and run queries to retrieve specific information from a database.
- Understand what a form is and create a form to enter, modify and delete records and data in records.
- Create routine reports and prepare outputs ready for distribution.

## Keyboard Shortcuts

### General

- Open a database **CTRL+O**
- Save a database **CTRL+S**
- Print a database **CTRL+P**
- Delete **DELETE**
- Undo **CTRL+Z**
- Redo or Repeat **CTRL+Y**
- Help **F1**
- Switch between apps **ALT+TAB**

### Navigation

- Next field **TAB**
- Previous field **SHIFT+TAB**
- Previous screen **PAGE UP**
- Next screen **PAGE DOWN**
- First record **CTRL+HOME**
- Last record **CTRL+END**

### Editing

- Cut **CTRL+X**
- Copy **CTRL+C**
- Paste **CTRL+V**

### Design View

- Properties **ALT+TAB**
- Open object in design view **CTRL+ENTER**
- Save object **CTRL+S**

## 1 Understanding Databases

### 1.1 Key Concepts

- 1.1.1 **Understand what a database is.**
  - A collection of related data organised for fast search and retrieval
- 1.1.2 **Understand the difference between data and information.**
  - Information is the processed output of data.
- 1.1.3 **Understand how a database is organised in terms of tables, records and fields.**
  - **Tables** - Data arranged in rows and columns
  - **Records** - A complete set of information in a table
  - **Fields** - A space allocated for an item of information, containing the same type of information for each item
- 1.1.4 **Know some of the common uses of large-scale databases like:**
  - Airline booking systems
  - Government records
  - Bank account records
  - Hospital patient details

### 1.2 Database Organisation

- 1.2.1 **Understand that each table in a database should contain data related to a single subject type.**
  - If tables contain data related to a single subject type, it is easier to search for and locate data.

- 1.2.2 **Understand that each field in a table should contain only one element of data.**

- For example, first name in one field, surname in second field.

- 1.2.3 **Understand that field content is associated with an appropriate data type like: text, number, date/time, yes/no.**

- **Data Type** - The characteristic of a field that determines what type of data it can hold
- The following are examples of different data types:

<b>Text</b>	Text, numbers, or both up to 255 characters
<b>Memo</b>	Text, numbers, or both up to 63,999 characters
<b>Number</b>	Numbers used in calculations
<b>Date/Time</b>	Date, times, or both up to 8 bytes
<b>Currency</b>	Currency values, prevents rounding
<b>AutoNumber</b>	Unique sequential numbers automatically added to field
<b>Yes/No</b>	True/False, On/Off
<b>OLE Object</b>	Documents created in other Office programs up to 1GB
<b>Hyperlink</b>	Hyperlink to a UNC path or URL up to 2048 characters
<b>Lookup Wizard</b>	Create a field that allows the choice of a value from another table or list

- 1.2.4 **Understand that fields have associated field properties like: field size, format, default value.**

- **Field Properties** - A set of characteristics that control how the field is stored, entered, or displayed

- 1.2.5 **Understand what a primary key is.**

- It uniquely identifies each record in a table
- It allows faster data access

- 1.2.6 **Understand what an index is. Understand how it allows for faster data access.**

- It helps find and sort records faster

### 1.3 Relationships

- 1.3.1 **Understand that the main purpose of relating tables in a database is to minimize duplication of data.**

- Minimizing duplication of data helps to ensure the integrity of the data.

- 1.3.2 **Understand that a relationship is built by matching a unique field in one table with a field in another table.**

- It is not possible to match duplicate field names; each field has its own unique identifier.

- 1.3.3 **Understand the importance of maintaining the integrity of relationships between tables.**

- Integrity ensures that relationships are valid.
- Integrity avoids records being accidentally deleted or altered.

## 1.4 Operation

- 1.4.1 **Know that professional databases are designed and created by database specialists.**
  - These are designed using specialised software to meet the organisation's needs for present and future use.
- 1.4.2 **Know that data entry, data maintenance and information retrieval are carried out by users.**
  - Users will be granted access rights as needed for basic data entry and search.
- 1.4.3 **Know that a database administrator provides access to specific data for appropriate users.**
  - The database administrator implements security measures to safeguard the organisation's database.
- 1.4.4 **Know that the database administrator is responsible for recovery of a database after a crash or major errors.**
  - The database administrator has overall responsibility for the maintenance and repair of an organisation's database.

## 2 Using the Application

### 2.1 Working with Databases

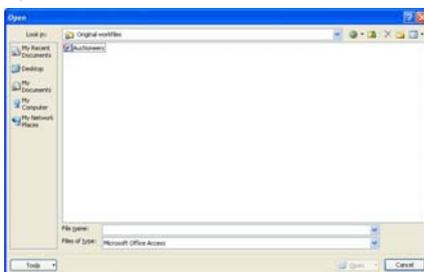
#### 2.1.1 Open a database application.

- Click the **Start** button.
- Select **All Programs**.
- Click **Microsoft Access 2007**.

#### 2.1.1 Close a database application.

- Click the **Office** button.
- Click **Exit Access**.

#### 2.1.2 Open a database.



- Click the **Office** button.
- Click **Open**.
- Select database to open and click **Open**.

#### 2.1.2 Close a database.

- Click the **Office** button.
- Click **Close Database**.

#### 2.1.3 Create a new database and save to a location on a drive.



- Click the **Office** button.
- Click **New**.
- A blank database is selected; create a file name and select the location.
- Click **Create**.

#### 2.1.4 Restore, minimize the ribbon.

- Double-click any tab to minimise the ribbon.
- Double-click any tab again to restore the ribbon.

#### 2.1.5 Use available Help functions

- Click on the **Help** button  on the top right of the ribbon.

## 2.2 Common Tasks

### 2.2.1 Open a table, query, form, report.

- Select the table, query, form or report in the **Navigation Pane**.
- Double-click on the object to open.

### 2.2.1 Save a table, query, form, report.

- Ensure the table, query, form or report is open.
- On the **Home** tab, in the **Records** group, click the **Save** button.

### 2.2.1 Close a table, query, form, report.

- Click the close 'x' icon on the top-right of the object window.

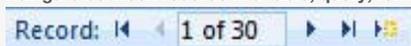
### 2.2.2 Switch between view modes in a table, query, form, report.

- On the **Home** tab, in the **Views** group, click the **View** arrow and click view preferred.

### 2.2.3 Delete a table, query, form, report.

- Select the table, query, form, or report in the **Navigation Pane**.
- On the **Home** tab, in the **Records** group, click the **Delete** button.
- Click **Yes** to confirm deletion.

### 2.2.4 Navigate between records in a table, query, form.



- Use the **Navigation Bar** in the lower left corner of the window to go forward or backwards through the records.

### 2.2.5 Sort records in a table, form, query output in ascending, descending numeric, alphabetic order.

- Click into the field to sort.
- On the **Home** tab, in the **Sort & Filter** group, click the **Ascending** or **Descending** buttons.

## 3 Tables

### 3.1 Records

#### 3.1.1 Add records in a table.

- Open the table in **Datasheet View**.
- On the **Home** tab, in the **Records** group, click the **New** button.
- Enter data in fields as required.

#### 3.1.1 Delete records in a table.

- Select the record to delete.
- On the **Home** tab, in the **Records** group, click the **Delete** button.
- Click **Yes** to confirm deletion.

#### 3.1.2 Add, modify data in a record.

- In table **Datasheet View**, click into the record.
- Click into each field to add or modify the data.

#### 3.1.2 Delete data in a record.

- In table **Datasheet View**, click into the record.
- Click into each field and press the **Delete** key.

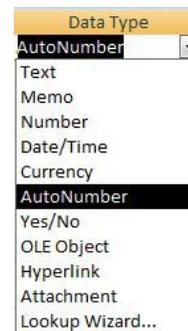
### 3.2 Design

#### 3.2.1 Create and name a table.

Field Name	Data Type	Description
Item Name	Number	
Item Name	Text	
Date Received	Date/Time	
Reserve Price	Currency	
Date Sold	Date/Time	
Status	Text	
Sale Price	Currency	
Quantity	Text	
Customer ID	Number	
Salesperson ID	Number	

- On the **Create** tab, in the **Tables** group, click the **Table** button.
- On the **Datasheet** tab, in the **Views** group, click the **View** arrow and click the **Design View** button.
- When prompted, enter a name for the table and click **OK**.

#### 3.2.1 Specify fields with their data types like: text, number, date/time, yes/no.



- In table **Design View**, click into the **Data Type** column for the field.
- Click on the drop-down arrow and select a **Data Type**.

#### 3.2.2 Apply field property settings: field size, number format, date/time format, default value.

Property	Value
Field Size	Long Integer
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	No
Indexed	Yes (No Duplicates)
Smart Tags	
Text Align	General

- In table **Design View**, click into a field row.
- In the **General** tab at the bottom of the window, click into the **Format** field.
- Click on the drop-down arrow and select a **Format**.

#### 3.2.3 Create a validation rule for number, date/time, currency.

- In table **Design View**, click into a field row.
- In the **General** tab at the bottom of the window, click into the **Validation Rule** field.
- Enter the validation rule.

#### 3.2.4 Understand consequences of changing data types, field properties in a table.

- Data already entered into the table may be lost when changing a field size attribute.

#### 3.2.5 Set a field as a primary key.

- In table **Design View**, click into the field to select as the primary key.
- In the **Design** tab, in the **Tools** group, click the **Primary Key** button.

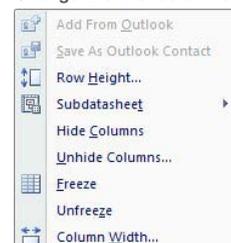
#### 3.2.6 Index a field (with, without duplicates allowed).

- In table **Design View**, click into the field row.
- In the **General** tab at the bottom of the window, click into the **Indexed** field.
- Click on the drop-down arrow and select **Yes (No Duplicates)**.

#### 3.2.7 Add a field to an existing table.

- In table **Design View**, click into an empty field row.
- Enter a new field name.
- Select a **Data Type** from the drop-down list.

#### 3.2.8 Change width of columns in a table.

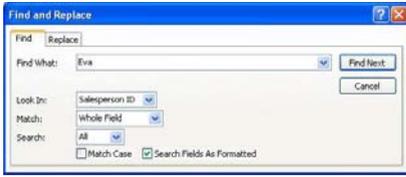


- Select the column heading.
- On the **Home** tab, in the **Records** group, click the **More** arrow and select **Column Width**.
- Enter a column width.
- Click **OK**.

## 4 Retrieving Information

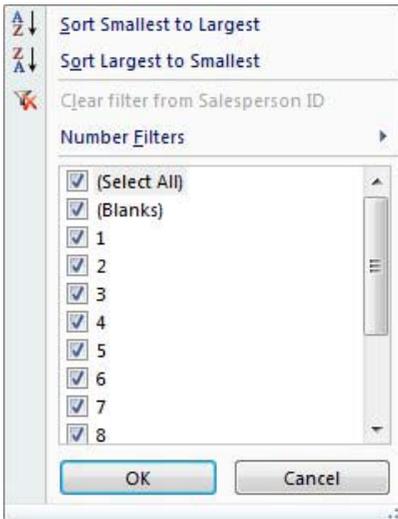
### 4.1 Main Operations

#### 4.1.1 Use the search command for a specific word, number, date in a field.



- On the **Home** tab, in the **Find** group, click the **Find** button.
- Enter the word, number or date to find in the **Find What** box.
- Click **Find Next** to select the next occurrence of the word or phrase until the value is found.

#### 4.1.2 Apply a filter to a table, form.



- Open the table or form.
- On the **Home** tab, in the **Sort & Filter** group, click the **Filter** button.
- Click the boxes to deselect the rows to filter.
- Click **OK**.

#### 4.1.3 Remove the application of a filter from a table, form.

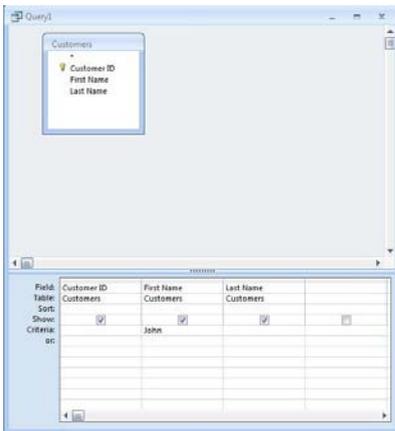
- On the **Home** tab, in the **Sort & Filter** group, click the **Advanced** button.
- Click **Clear All Filters**.

### 4.2 Queries

#### 4.2.1 Understand that a query is used to extract and analyze data.

- It allows users to locate data according to specific search criteria.

#### 4.2.2 Create a named single table query using specific search criteria.

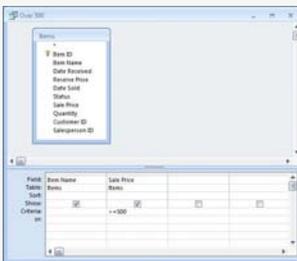


- On the **Create** tab, in the **Other** group, click the **Query Design** button.
- Select the table to add from the **Show Table** window.
- Click **Add** and then click **Close**.
- Click and drag the fields required into the window below.
- Click into the field's **Criteria** text box.
- Enter the criteria.

#### 4.2.3 Create a named two-table table query using specific search criteria.

- In the **Create** tab, in the **Other** group, click the **Query Design** button.
- Select the two tables to add from the **Show Table** window.
- Click **Add** and click **Close**.
- Click and drag the fields required into the window below.
- Click into the field's **Criteria** text box.
- Enter the criteria.

#### 4.2.4 Add criteria to a query using one or more of the following operators: = (Equal), <> (Not equal to), < (Less than), <= (Less than or equal to), > (Greater than), >= (Greater than or equal to).



- In query **Design View**, click into the field's **Criteria** text box.
- Enter the criteria using an arithmetic operator.

#### 4.2.5 Add criteria to a query using one or more of the following logical operators: AND, OR, NOT.

- In query **Design View**, click into the field's **Criteria** text box.
- Enter the criteria using a logical operator.

#### 4.2.6 Use a wildcard in a query, \* or %, ? or \_.

- In query **Design View**, click into the field's **Criteria** text box.
- Enter the criteria using a wildcard.

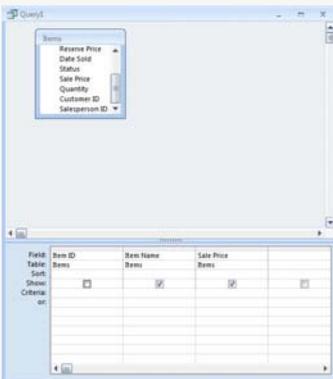
#### 4.2.7 Edit a query: add, modify, remove criteria.

- In query **Design View**, click into the field's **Criteria** text box.
- Add, modify, or remove criteria as required.

#### 4.2.8 Edit a query: add fields.

- In query **Design View**, click into a blank field's column heading.
- Click on the arrow and select the field required.

#### 4.2.8 Edit a query: remove fields.



- In query **Design View**, select the column heading of the field to delete.
- Press the **Delete** key.

#### 4.2.8 Edit a query: move fields.

- In query **Design View**, select the column heading of the field to move.
- Drag and drop the field's column heading to the required location.

#### 4.2.8 Edit a query: hide, unhide fields.

- To hide a field, in query **Design View**, click **Show** criteria to remove checkmark.
- To unhide a field, in query **Design View**, click **Show** criteria to show checkmark.

#### 4.2.9 Run a query.



- On the **Design** tab, in the **Results** group, click the **Run** button.

## 5 Objects

### 5.1 Forms

#### 5.1.1 Understand that a form is used to display and maintain records.

- It allows users to navigate through records and add, delete, or modify records as needed.

#### 5.1.2 Create and name a form.

- Select a table or query.
- On the **Create** tab, in the **Forms** group, click the **Form** button.
- Close the form and when prompted, confirm the name of the form and click **OK**.

#### 5.1.3 Use a form to insert new records.

- On the **Home** tab, in the **Records** group, click the **New** button.
- Enter new records as required.

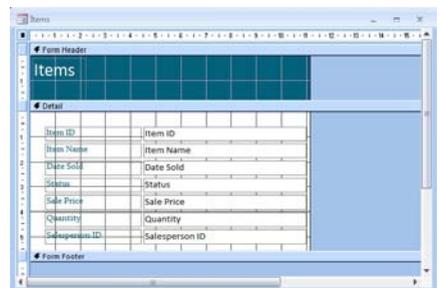
#### 5.1.4 Use a form to delete records.

- Select the record to delete.
- On the **Home** tab, in the **Records** group, click the **Delete** arrow.
- Click **Delete Record**.

#### 5.1.5 Use a form to add, modify, delete data in a record.

- Use the **Navigation Bar** in the lower left corner of the form window to navigate to the required record.
- Click into the field to alter and add, modify or delete data as required.

#### 5.1.6 Add text in headers, footers in a form.



- On the **Design** tab, in the **Controls** group, click the **Text Box** button.
- Go to the header or footer and click and drag to create a text box.
- Add text.

#### 5.1.6 Modify text in headers, footers in a form.

- Open the form in **Design View**.
- Click in the text box in the header or footer.
- Modify text as required.

## 6 Outputs

### 6.1 Reports, Data Export

#### 6.1.1 Understand that a report is used to print selected information from a table or query.

- It allows users to create a printed copy of all or selected data for greater ease of reference and understanding.

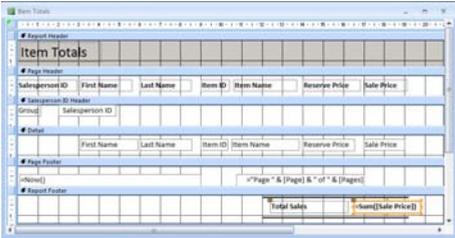
#### 6.1.2 Create and name a report based on a table, query.

- Select a table or query.
- In the **Create** tab, in the **Reports** group, click the **Report** button.
- Close the report and, when prompted, confirm name of report and click **OK**.

#### 6.1.3 Change arrangement of data fields and headings within a report layout.

- Open a report in **Design View**.
- Click on a data field or heading and drag to required location.

#### 6.1.4 Present specific fields in a grouped report by sum, minimum, maximum, average, count, at appropriate break points.



- Add a text box to the page footer or report footer section of the report.
- On the **Design** menu, in the **Tools** group, click the **Property Sheet** button.
- Click the **Data** tab and click into the **Control Source** box.
- Create a formula beginning with = that will calculate the field.

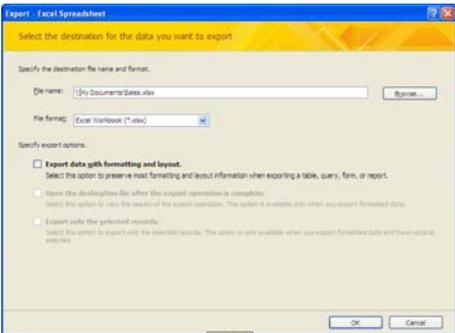
#### 6.1.5 Add text in headers, footers in a report.

- On the **Design** tab, in the **Controls** group, click the **Text Box** button.
- Click and drag to place in the header or footer of the report.
- Add text.

#### 6.1.5 Modify text in headers, footers in a report.

- Open the report in **Design View**.
- Click in the text box in the header or footer.
- Modify text as required.

#### 6.1.6 Export a table, query output in spreadsheet, text (.txt, .csv), XML format to a location on a drive.



- On the **External Data** tab, in the **Export** group, click the relevant **Application** button. Select a location.
- Click **Export data with formatting and layout**.
- Click **OK**.

### 6.2 Printing

#### 6.2.1 Change the orientation (portrait, landscape) of a table, form, query output, report.

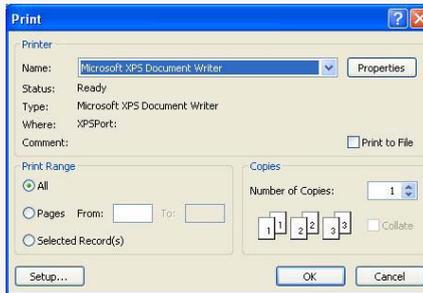


- Open the table, form, query output or report.
- Click the **Microsoft Office Button**, and then click **Print Preview**.
- On the **Print Preview** tab, in the **Page Layout** group, click the **Portrait** or **Landscape** buttons.

#### 6.2.1 Change paper size.

- Open the table, form, query output or report.
- Click the **Microsoft Office Button**, and then click **Print Preview**.
- On the **Page Setup** tab, in the **Page Layout** group, click the **Size** button. Click on a size from the list shown.

#### 6.2.2 Print a page.



- Open the object to print.
- Click the **Office** button.
- Click **Print**.
- Under **Print Range**, click **Pages** and enter the number reference in the **From** and **To** boxes.
- Click **OK**.

#### 6.2.2 Print selected record(s).

- Open the record(s) to print.
- Under **Print Range**, click **Selected Record(s)**.
- Click **OK**.

#### 6.2.2 Print a complete table.

- Open the table to print.
- Under **Print Range**, click **All**.
- Click **OK**.

#### 6.2.3 Print all records using form layout, specific pages using form layout.

- Open the form to print.
- Click the **Office** button.
- Click **Print**.
- To print all records, under **Print Range**, click **All**.
- To print specific pages, under **Print Range**, click **Pages** and enter the number reference in the **From** and **To** boxes.
- Click **OK**.

#### 6.2.4 Print the result of a query.

- Open the query to print.
- Click on the **Office** button.
- Click **Print**.
- Click **OK**.

#### 6.2.5 Print specific page(s) in a report, print complete report.

- Open the report to print.
- Click on the **Office** button.
- Click **Print**.
- To print all pages, under **Print Range**, click **All**.
- To print specific pages, under **Print Range**, click **Pages** and enter the number reference in the **From** and **To** boxes.
- Click **OK**.

For more information, visit:  
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