The additional Material in Access

Tables

- ### Additional Field Data types:

  Lookup wizard:
  Is used where the same text or data is to be entered in many fields. It saves having to type it in every time.
  1. Open the table in design view. Add a new Field and select Lookup wizard from the Field Data type.
  2. The lookup wizard window will appear.
  3. Click (I will type in the value that I want), then click next.
  4. A new window will appear with a column for you to type the value you want in the field.

  Under the field properties at the bottom of the screen, select the lookup tab. Change the **limit to list** box to yes, so that only the items in the list will be accepted.
  To determine if the field data type is Lookup, use the Lookup tab from Field Properties

- ### Some Additional Field Properties (بالإضافة للخصائص المعطاة):
  1. Caption
  2. Default value
     - The default value for date/Time:
       To display today's date automatically as a default value, type
       =Date() or =Now
  3. The format property of Yes/No field
  4. Input Mask (إعطاء بعض الرموز الإضافية)

0	Required number (0-9), no plus or minus
9	Optional number (0-9)
L	Required letter (A-Z)
?	Optional letter (A-Z)
>	Upper case letter
<	Lower case letter

- ### Note about the primary key:
  You may designate two or more fields as the primary key

- ### Navigate to category:
  1) Tables and related views
  2) Object types
  Also we can use Filter by group

Relationships

- **Indeterminate** (undefined) relationship: A relationship between two unrelated fields or a relation between two fields that neither of them is primary key.

Query

• Specifying more than one criteria in a query

If the relation between the criteria is and → put the criteria on the same line.
If the relation between criteria is or → put the criteria on two different lines.

• Creating Calculated Fields in Queries

A calculated field is a field which is defined in a query, and it displays the result of an expression
To create a new calculated field:

1. Enter the name of the new field in the **Field** row of a query grid followed by a colon **(:)**
2. Enter the expression with field names enclosed in square brackets.
3. Use the standard mathematical symbols.
   Example→ TotalAmount : [Price]*[Number Sold]

• Creating Parameter Queries

A parameter query is a query that displays its own dialog box prompting you for information when run.

1. Create a select query.
2. In the query design view, drag the fields from the field list to the query design grid.
3. Add the expression **[Enter Title Required]** in the criteria row.
4. Run the query

Forms

• Sections of a Form

In the Design view, Sections are represented as bands, and each section that the form contains is represented once.
Switch to Design view, display all the form sections by selecting Page Header/Footer and Form Header/Footer from: **Form Design Tools Tab → Arrange Tab → Show/Hide Group**

Sections of a Form:

1. Form Header: Displays information that remains the same for every record, such as a title for the form. Form Header appears at the top of the screen in Form View.
   A Form Header appears at the top of the first page only when printed.
2. Form Footer: Displays information that remains the same for every record. Form Footer appears at the bottom of the screen in Form View.
   A Form Footer appears at the last detail section on the last page when printed.

3. Page Header: Displays information at the top of every printed page. The Page header appears only on printed forms.
4. Page Footer: Displays information at the bottom of every printed page. The Page footer appears only on printed forms.
5. Detail section: Is where you specify which fields will be displayed, what they will look like, and so forth.

- ## Form Controls:
  Controls are objects on a form or report that display data, perform actions, or are used for decoration. For example, you can use a text box to display data, a command button to open another form or report.

Controls	
Label	To create a label box
Textbox	To create a text box
Command Button	To start an action
Combo Box	To provide lists from which the user can pick
Check Box	To display a Yes/No value from an underlying table

- ## Control Types:

  Forms use three kinds of controls:
  1. Bound control: is one whose source of data is a field in a table or query.
  2. Unbound control: is a control that does not have a source of data such as labels.
  3. Calculated control: These hold expressions as in the example below.

- **Calculated Field:**
  A **text box** is drawn in a form, and the expression is entered into it. The expression may include any mathematical symbol (+*-/) and expressions such as (sum, avg, max, min)
  1) Open the form in design view.
  2) From Form Design Tools tab→ Design Tab → Controls group, Click on the text box icon from the controls group.
  3) Click on the form, where you want to place the text box
  4) Type the formula in the unbound box
     - Type = sign
     - Write the name of the field inside two square brackets.
       Example1→ to calculate the double of the Freight field:
         =[Freight]*2
       Example2 → to display the average of the Price field:
         = Avg([Price])
       Example3 → to display the current date and time in your form:
         = Now()
       Example4 → to display the current date in your form:
         =Date()

- **Command Button**

  Is a button on a form which, when pressed, performs an action, such as closing a form and printing.

  You can create a command button by using wizard.
    1) Open the form in design view.
    2) From Form Design Tools tab→ Design Tab → Controls group, Click on the command button icon.
    3) Follow the directions in the wizard dialog boxes and select the action you want (Close Form, Delete Record,…….)

- **Combo box**

  Provide drop-down lists from which a user can pick. This is particularly useful when there are more choices than will fit on the screen if you devote button space to each.
    - Click the Combo box from the Controls group.
    - Drag the field you want from the field list and drop it in the Detail area. The combo box wizard dialog box will appear.
    - Select (I will type the values that I want), which allows the user to type in the values they want to display in the combo box. Then click Next.
    - Type in the values in the list and then click Next.
    - On (Store the value in this field) box, specify the field where you want the list to get its data from. Then click Next.
    - Finally, you will be asked to name the list, then click Finish.

- **Check box**

  You can use a check box on a form or report to display a Yes/No value from an underlying table.
    - Open a table and add a new field to the table with data type **Yes/No**. Close the table, saving the changes
    - Open the form in Design view, click the check box button from the Controls group, and drag the field to the Detail area.

  Note: You can know the type of the control by: Opening the Form in design view→ double clicking on the field you want to know its type, then from the Property Sheet you can know the type

Reports

- The report sections are:

  Report header, report footer, page header, page footer, and detail section

  (The same concepts as in the Form sections)
- In the report calculate totals and subtotals of numeric data fields. Add grouping levels to the report and display the summary for each group (sum, avg, max, min)
- You can use the same controls used in the form (calculated field, label …..)