

MS Access – Fundamentals 2

The purpose of this session is to introduce learners to the key concepts and skills surrounding;

- **Modifying an Existing Table**
- **The Lookup Wizard**
- **Adding Multiple Tables into a Single Database File**
- **The Primary Key**
- **Input Mask, Text Formatting, Default Value, and Defining Required Fields**

Personal Notes and Application:

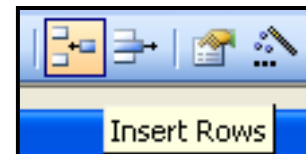
Modifying an Existing Table

We have now created a table structure, inserted data into the table, edited that data, and learned how to locate specific data within this database. We will now review the process of **Editing the Table Fields**. Through this process, we are able to quickly and easily add, remove, or edit table fields as required for a successful database.

1. Open Microsoft Access
2. Open the **File** menu
3. Select **Open...**
4. Select the folder titled:
Microsoft Access your name
5. Once within your new folder, open the following file name:
DB Fundamentals 1
6. From the Database window, select the table **Client** and then select the **Design** button. This should return you to the **Client: Table** window.

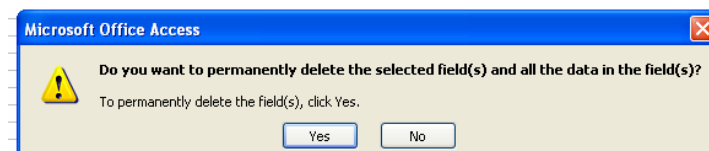
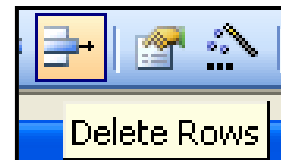
To Add a Field:

1. Select the Field Name Last Name
2. On the Database toolbar, select **Insert Rows**
3. In the Field Name, key in the following name for this blank field:
Level ID
4. In the Data Type:
Text (Field Size 25)
5. In the Description:
Level of Client Experience
6. Save your changes, and close the **Client: Table** window



To Remove a Field:

1. From the Database window, select the table **DB Fundamentals 1** and then select the **Design** button. This should return you to the **Client: Table** window
2. Select within the **Emergency Contact:** Field Name
3. On the Database toolbar, select **Delete Rows**
4. Once in the Delete Confirmation dialogue box, select **No**, and the record will not be deleted



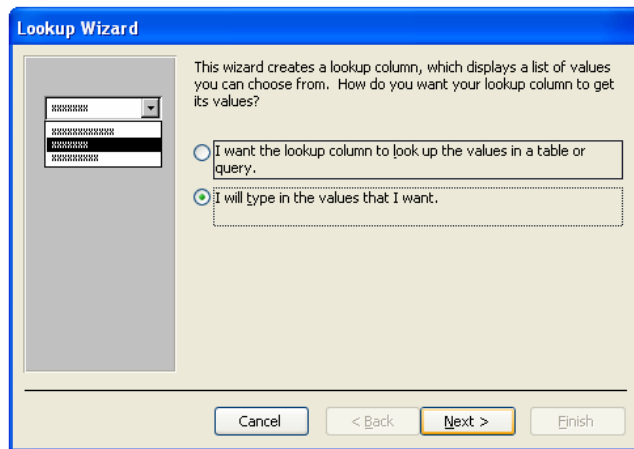
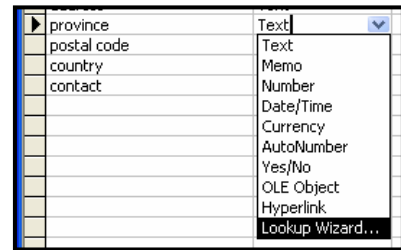
Another Data Type field choice you can utilize when generating table field columns is called the **Lookup Wizard**. You can use the Lookup Wizard to control the data that can be entered into a field.

When selected, the Lookup Wizard will display the first of two dialogue boxes. There are two steps that must be taken to complete the process;

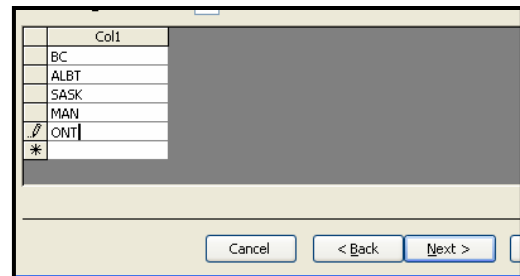
- a. Identify how the column will get its values
- b. Key in the values to be displayed

From the Database window, select the **Client** table and then select the **Design** button. This should return you to the **Client: Table** window.

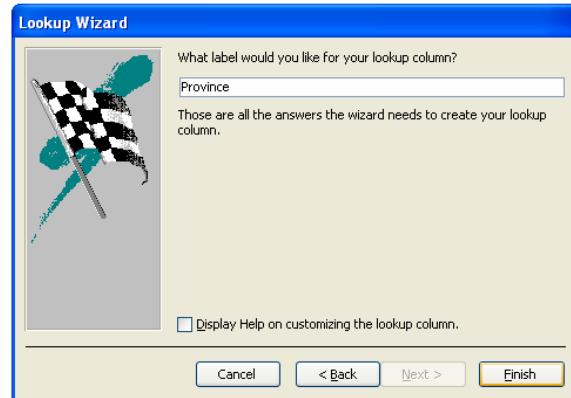
1. Select the **Home Province/State Field Data Type** drop menu
2. Select **Lookup Wizard**
3. Within the Lookup Wizard dialogue box, select **I will type in the values that I want**, and then select **Next**



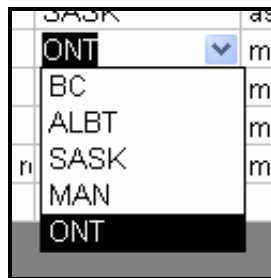
4. Under the **Col1** field within the second Lookup Wizard dialogue box, key in the following values;
(Note: Following each entry, press Tab to generate a new field space)



5. Select **Next**



6. Select **Finish**
7. Save the changes made within the Databases Exercise 1 table window, and close it
8. Reopen the **Client** table (Double-click it within the Database Window)
9. Under any of the **Home Province/State** field listing, select one of the fields to display the Lookup Wizard feature



Adding Multiple Tables into a Database

Although we have already created one table (**Client**) in this database file, we can add more if required. Add the following table in the **Microsoft Access your name** file.

1. Open Microsoft Access
2. Open the **File** menu
3. Select **Open...**
4. Select the folder titled:
Microsoft Access your name
5. Once within your new folder, open the following file name:
DB Fundamentals 1
6. At the Database window, select **Create Table in Design View** in the Table list box

7. Once in the **Table 1: Table**, key in the following Field Names, Data Types (with Field Size), and Descriptions as listed below:

Field Name	Data Type	Description
Level ID	Text (Field Size 8)	Excursion Level ID
Level Title	Text (Field Size 30)	Full Level title
Description	Memo	Detailed level description

Memo Field: Can hold up to 65,535 characters. Generally used to hold lengthy descriptive data.

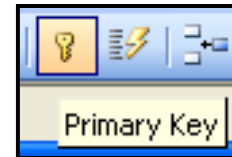
8. Once all the Field Names, Data Types, and Descriptions have been entered into the Table 1: Table, select the **File** Menu, and select **Save**
9. In the Save As: dialogue box, key in the following Table Name:
Level ID
10. Close the Level ID window
11. Do not assign a Primary Key

Assigning a Primary Key

The **Primary Key** is a field (or combination of fields) that makes each record in the table unique. The Primary Key is not required, as you have seen, but it is recommended. There can only be one Primary Key per table. In a table, records must be unique as to be distinguished from one another. By inserting a Primary Key into table, two records can ever be the exact same.

Be caution in choosing the field to insert a Primary Key. Names are never designated as Primary Key fields, as they may not be unique in a table. For example, your database may contain the name Glen on multiple occasions. Generally, specific designations or registrations (employee numbers, SIN numbers, etc...) are designated as Primary Key fields, as they will only appear on one record within a single table.

1. From the Database window, select the **Client** table and then select the **Design** button. This should return you to the Client List: Table window.
2. Select the Row titled **Client #**
3. Select the **Primary Key** button on the toolbar
4. Save and close this table window
5. From the Database window, select the **Level ID** table and then select the **Design** button. This should return you to the Client List: Table window.
6. Select the Row titled **Level ID**
7. Select the **Primary Key** button on the toolbar
8. Save and close this table window



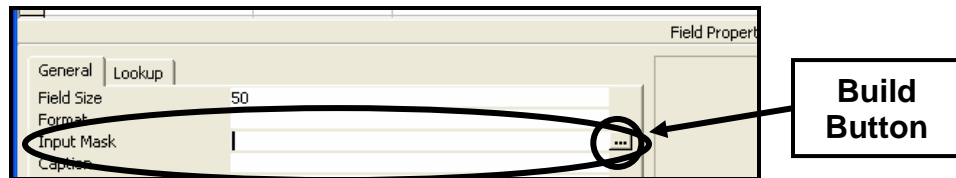
Note: To remove a Primary key from a Field, simple select the field, and then deselect the Primary Key button on the toolbar

Input Mask, Text Formatting, Default Value, and Defining Required Fields

The Input Mask

The Input Mask is a tool that allows you to choose from a predefined pattern for all data entered into this field. *Complete the following steps to create an Input Mask to a field;*

1. Open Microsoft Access
2. Open the **File** menu
3. Select **Open...**
4. Select the folder titled:
Microsoft Access your name
5. Once within your new folder, open the following file name:
DB Fundamentals 1
6. From the Database window, select the table **Client** and then select the **Design** button. This should return you to the **Client: Table** window.
7. Select the **Phone Number** Field
8. In the Field Properties section of the window, select the Input Mast Build button



9. The Input Mask Wizard will open. Choose from one of the default settings, or build your own using following common characters;

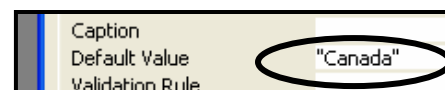
Character	Description
0	Digit (0 to 9, entry required, plus [+] and minus [-] signs not allowed).
9	Digit or space (entry not required, plus and minus signs not allowed).
#	Digit or space (entry not required; spaces are displayed as blanks while in Edit mode, but blanks are removed when data is saved; plus and minus signs allowed).
L	Letter (A to Z, entry required).
?	Letter (A to Z, entry optional).
A	Letter or digit (entry required).

a	Letter or digit (entry optional).
&	Any character or a space (entry required).
C	Any character or a space (entry optional).
. , : ; - /	Decimal placeholder and thousand, date, and time separators. (The actual character used depends on the settings in the Regional Settings Properties dialog box in Windows Control Panel).
<	Causes all characters to be converted to lowercase.
>	Causes all characters to be converted to uppercase.
!	Causes the input mask to display from right to left, rather than from left to right. Characters typed into the mask always fill it from left to right. You can include the exclamation point anywhere in the input mask.
\	Causes the character that follows to be displayed as the literal character (for example, \A is displayed as just A).

Default Values

The Default Value of a field will display a value automatically when entering information into a records field. This feature useful if there is common information for most records (e.g. Add a default value of Canada into the country field, if most records are for individuals living in Canada). *Complete the following steps to define a Default Value for a field;*

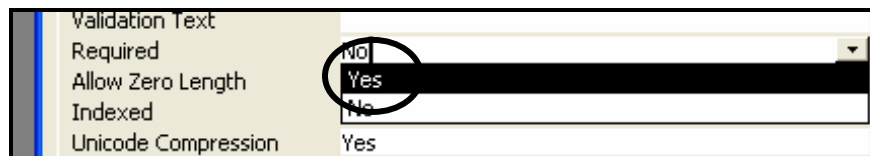
1. Open Microsoft Access
2. Open the **File** menu
3. Select **Open...**
4. Select the folder titled:
Microsoft Access your name
5. Once within your new folder, open the following file name:
DB Fundamentals 1
6. From the Database window, select the table **Client** and then select the **Design** button. This should return you to the **Client: Table** window.
7. Select the **Country** Field
8. In the Field Properties section of the window, place your cursor into the Default Value field
9. Type "**Canada**"
10. Save this table in Design View, and return to Table View



Defining Required Fields

You can use the **Required Fields** property to specify whether a value is required in a field. *Complete the following steps to use the Required Fields property;*

1. Open Microsoft Access
2. Open the **File** menu
3. Select **Open...**
4. Select the folder titled:
Microsoft Access your name
5. Once within your new folder, open the following file name:
DB Fundamentals 1
6. From the Database window, select the table **Client** and then select the **Design** button. This should return you to the **Client: Table** window.
7. Select the **Last Name** Field
8. In the Field Properties section of the window, place your cursor into the Required field
9. From the Drop Menu, select “**Yes**”
10. Save this table in Design View, and return to Table View

Text Formatting

You can use special symbols in the setting for the **Format** property to create custom formats for Text and Memo fields. *Use the Following symbols in the Format Field to apply custom formatting;*

Symbol	Description
@	Text character (either a character or a space) is required.
&	Text character is not required.
<	Force all characters to lowercase.
>	Force all characters to uppercase.
[colour]	Applies colour to contents