

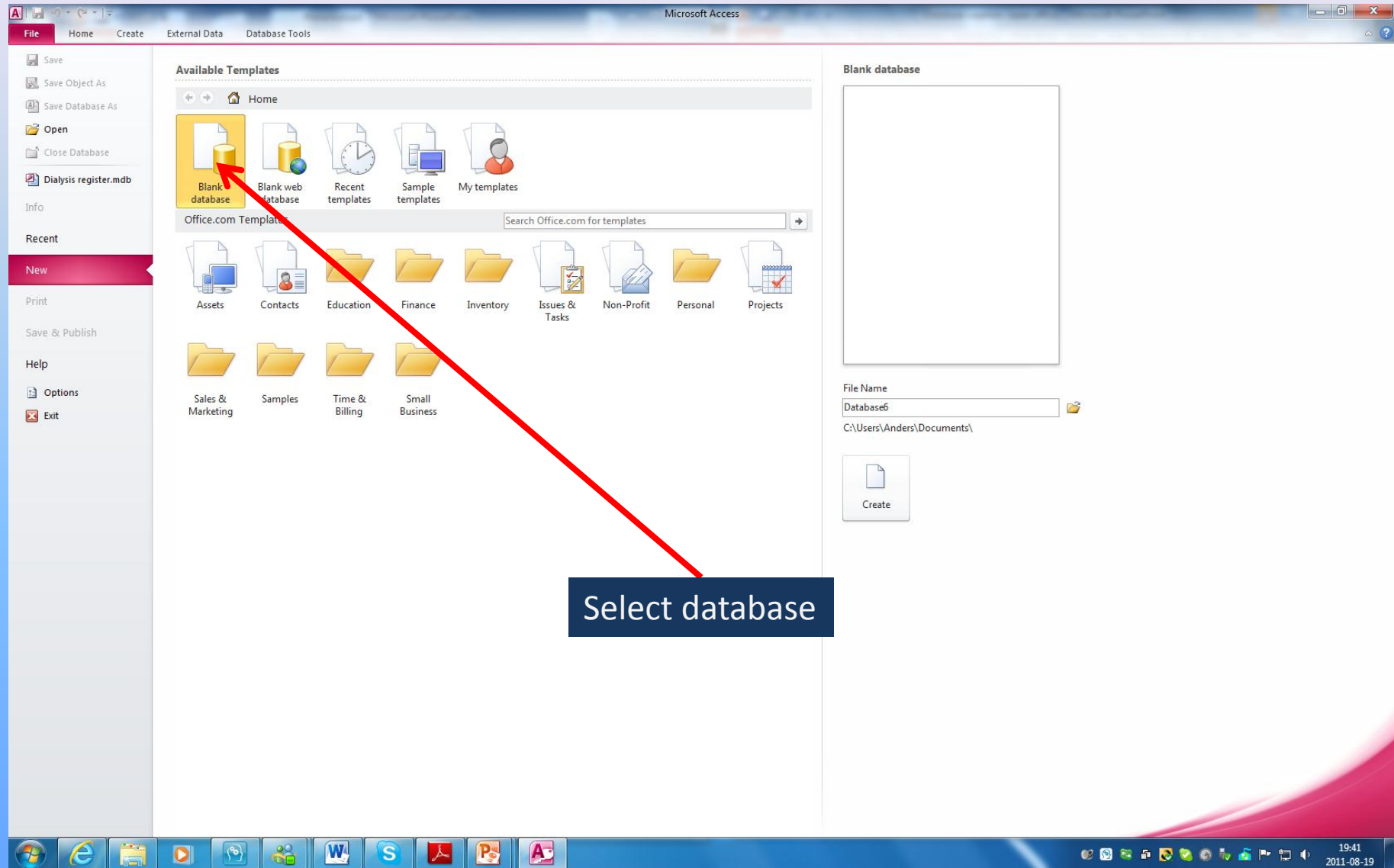
# Database in Microsoft Access

by

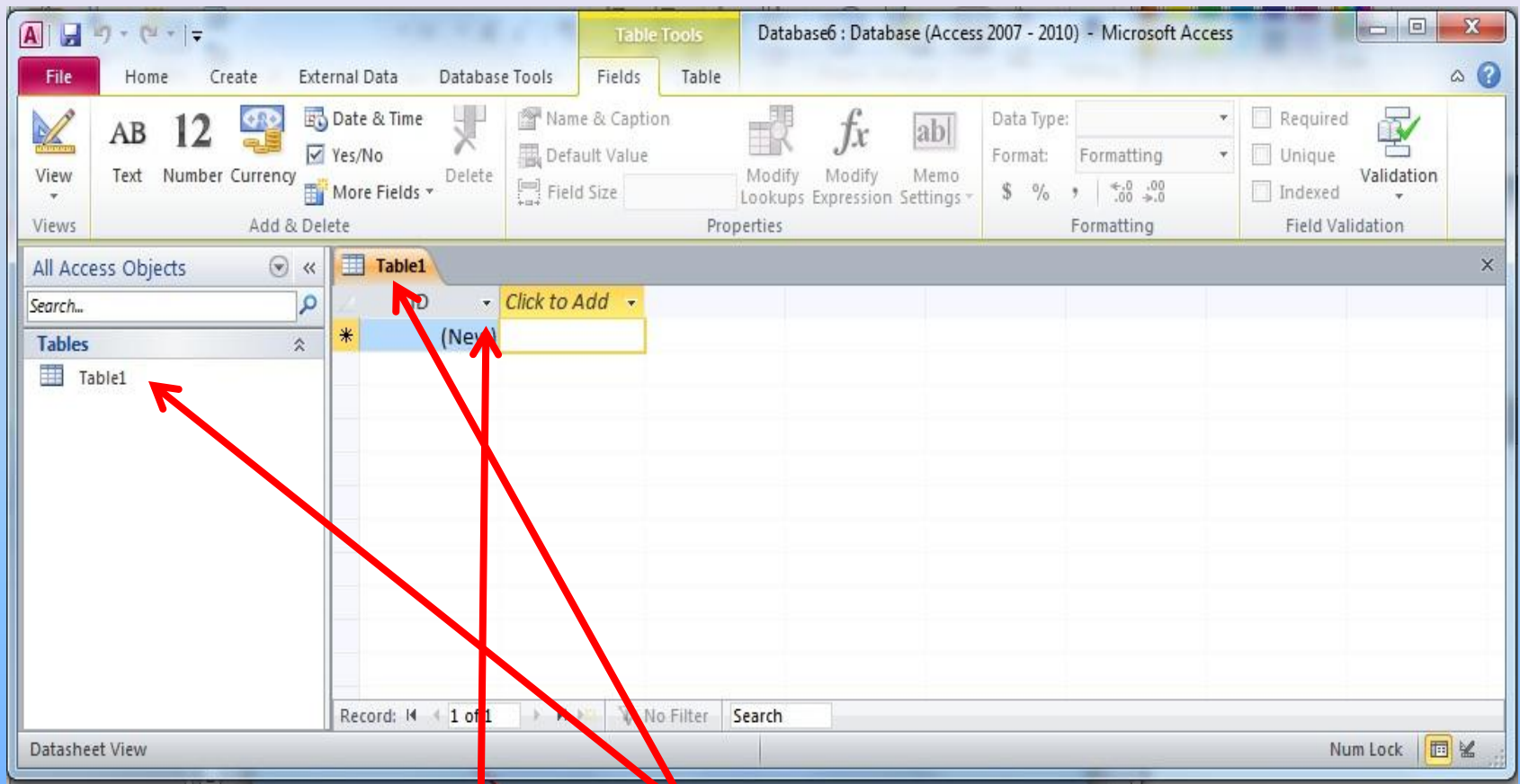
Anders L Nielsen

This presentation is parallel to the one for OpenOffice

# Database in Microsoft Access



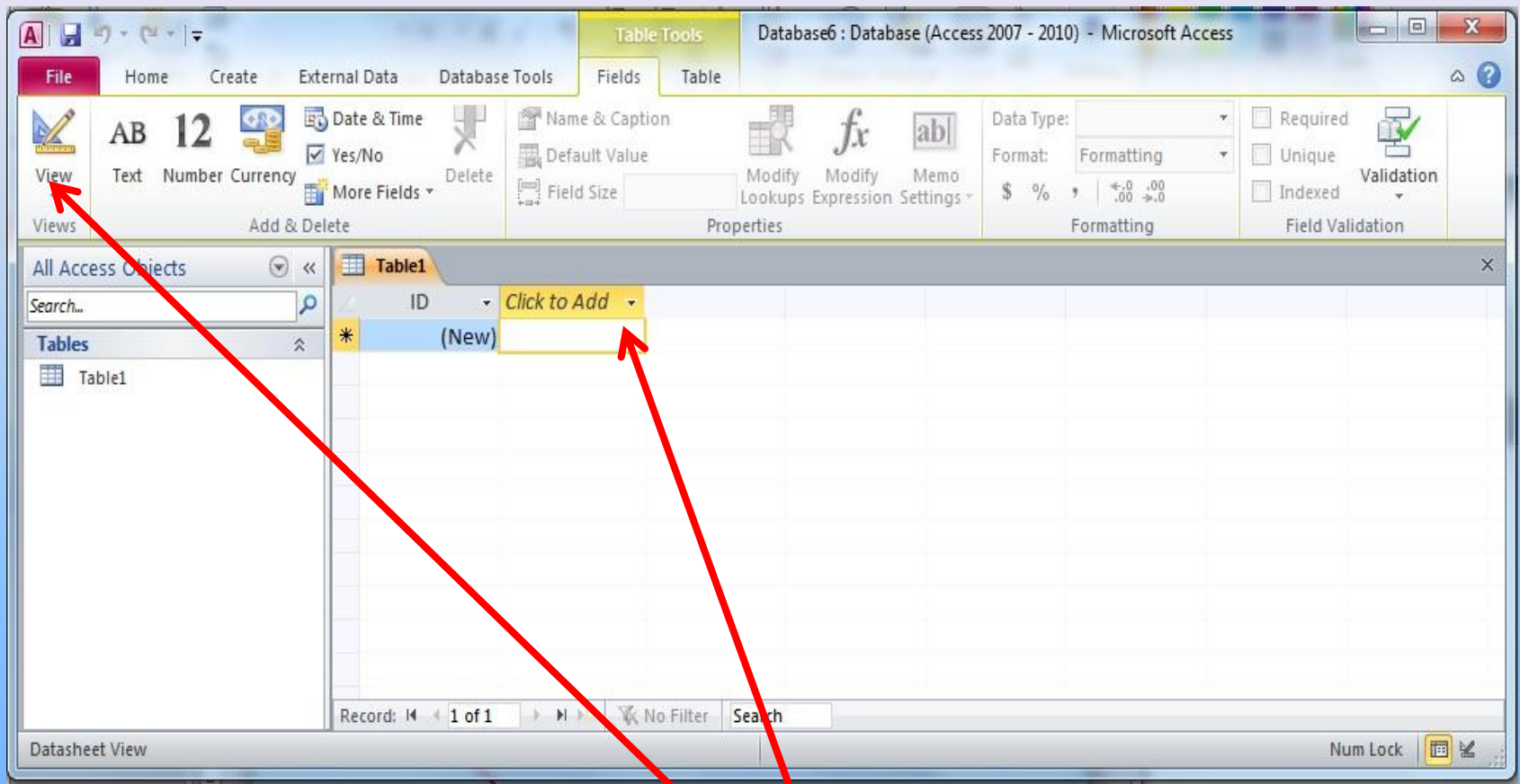
# Create a new database



Microsoft Access have already created the first table and named it 'Table 1'

Table 1 have been created with one 'field' called 'ID'

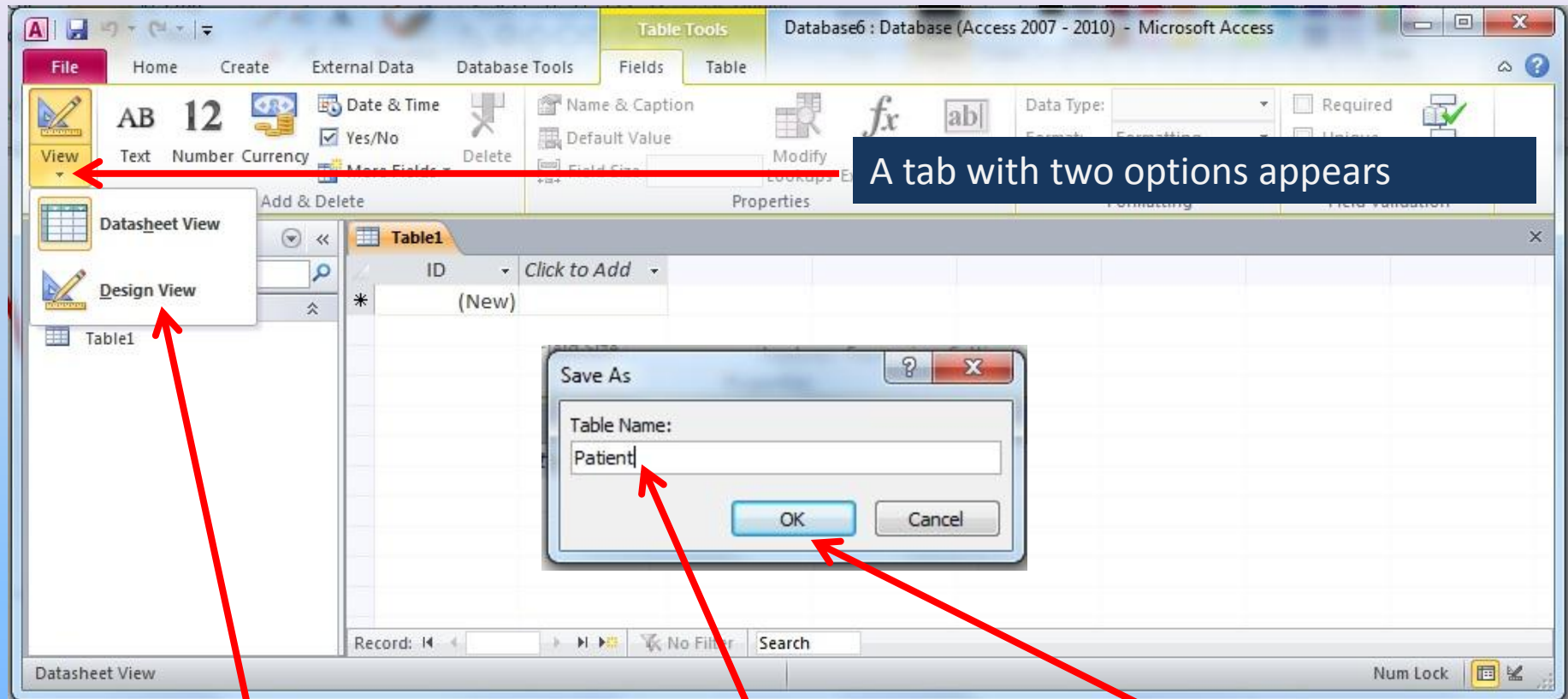
# Create a table



You can add the next field in your table by click on 'Add' and continue adding new fields

Another option is to click on 'View'. Using this alternative follows a sequence that resembles the sequence one has to follow if using older versions of Access or OpenOffice

# Create a table



Click on 'Design View'

Click 'OK' and the first table is finished

A popup window appears  
Give the table a relevant name

# Where am I

The screenshot shows the Microsoft Access interface. The title bar reads 'Database6 : Database (Access 2007 - 2010) - Microsoft Access'. The ribbon is set to 'Table Tools' with the 'Design' tab selected. A red arrow points from the 'Design' tab to the 'ID' field in the table design grid. The table 'Patient' has one field, 'ID', with data type 'AutoNumber'. The status bar at the bottom left says 'Design view. F6 = Switch panes. F1 = Help.' and the bottom right shows 'Num Lock' and some icons.

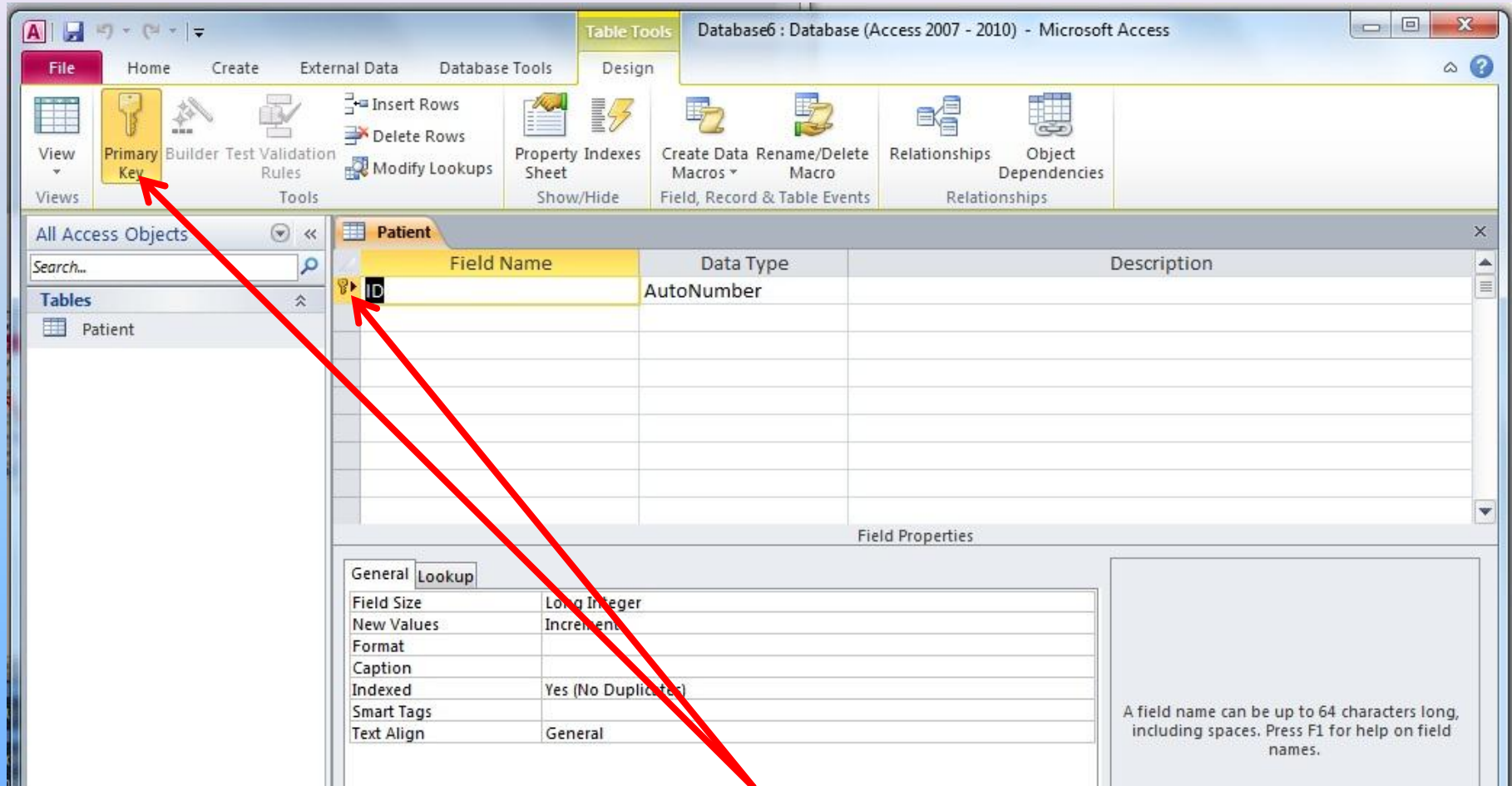
Note the tab 'Table Tools' have now shifted from showing 'Fields and Tables' to 'Designs'

It can be overwhelming with all the different tabs and options. In the beginning always take a step back and ask your self "where am I?". In this case you are in the 'Design View' under the main tab 'Table Tools'.

"Where you are" is also shown in both corners



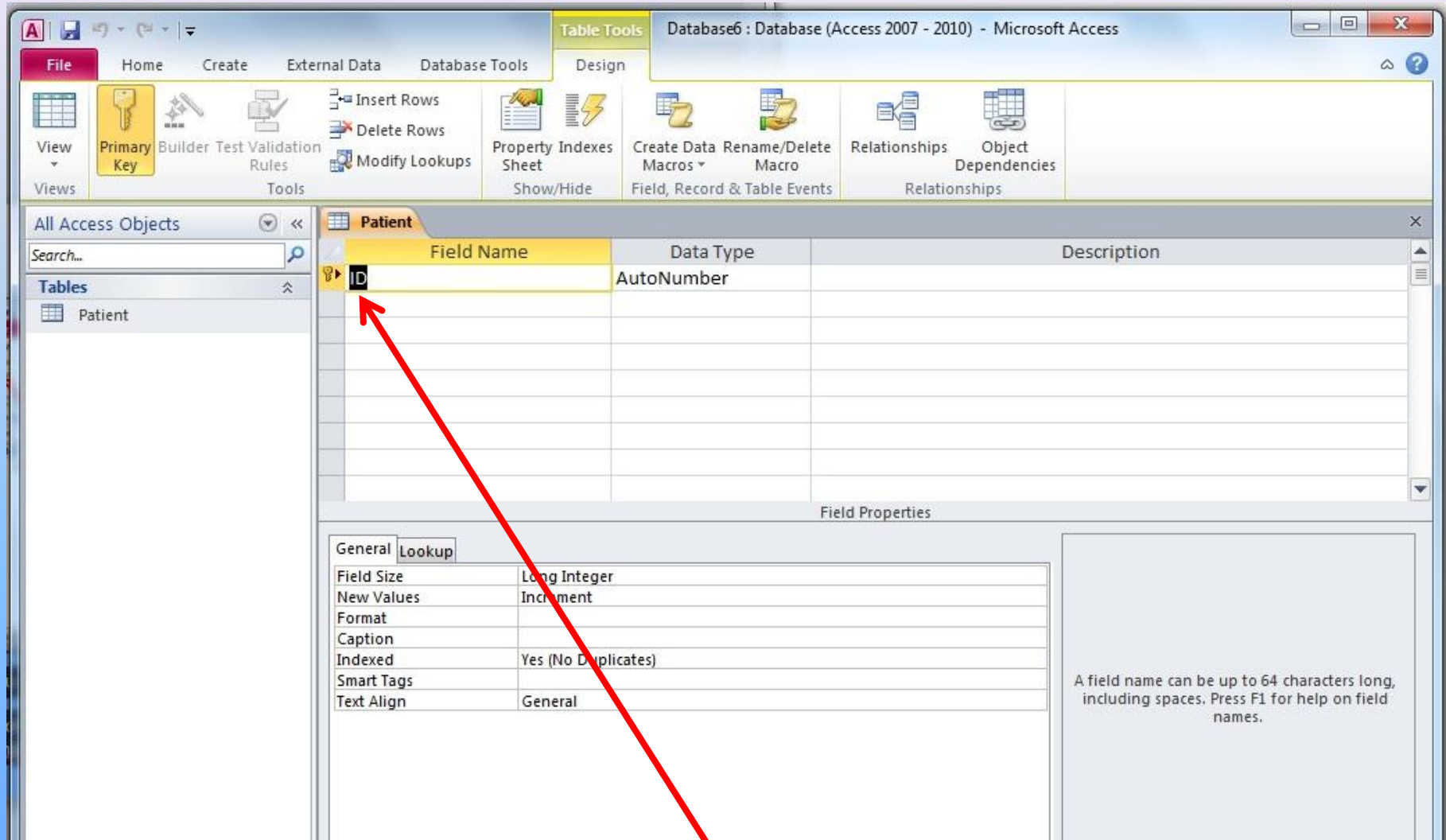
# Primary Key



The key-symbol shows that this field is a Primary Key. Each record will be assigned a unique id-number

Database technique but as we shall see later we can use it to our advantage -

# Primary Key



The field has by default been named ID. ID is a reserved word. As a rule never use it alone always use it with a prefix or a postfix. (*But leave ID as is for now*)



# Make a Field

Database6 : Database (Access 2007 - 2010) - Microsoft Access

File Home Create External Data Database Tools Design

View Primary Key Builder Test Validation Rules Insert Rows Delete Rows Modify Lookups Property Sheet Indexes Show/Hide Create Data Macros Rename/Delete Macro Relationships Object Dependencies

All Access Objects Search... Tables Patient

Field Name	Data Type	Description
ID	AutoNumber	
Forename		

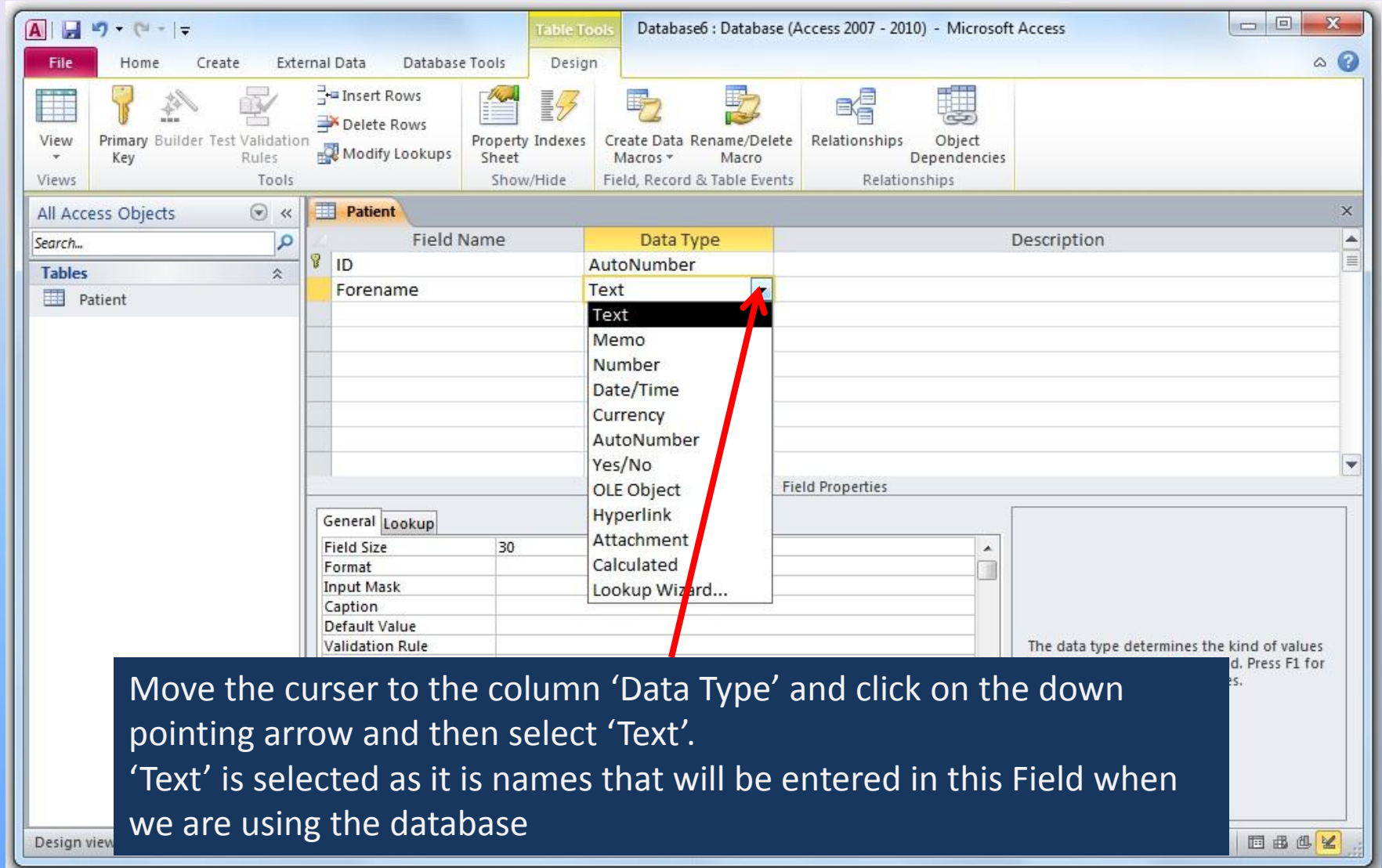
Field Properties

General Lookup

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

Design view. F6 = Switch panes. F1 = Help. Num Lock

# Make a Field



The screenshot shows the Microsoft Access interface with the 'Patient' table in Design view. The 'Data Type' dropdown menu is open, and 'Text' is selected. A red arrow points to the selection. The 'Field Name' column lists 'ID' and 'Forename'. The 'Data Type' column shows 'AutoNumber' for 'ID' and 'Text' for 'Forename'. The 'Description' column is empty. The 'Field Properties' pane is visible at the bottom right, showing the 'General' tab with 'Field Size' set to 30. A text box at the bottom of the screenshot provides instructions on how to select the data type.

Move the cursor to the column 'Data Type' and click on the down pointing arrow and then select 'Text'.  
'Text' is selected as it is names that will be entered in this Field when we are using the database

# Make a Field

Database6 : Database (Access 2007 - 2010) - Microsoft Access

File Home Create External Data Database Tools Design

Views Primary Key Builder Test Validation Rules Insert Rows Delete Rows Modify Lookups Property Indexes Sheet Show/Hide Create Data Macros Rename/Delete Macro Field, Record & Table Events Relationships Object Dependencies Relationships

All Access Objects Search... Tables Patient

Field Name	Data Type	Description
ID	AutoNumber	
Forename	Text	

Enter the max numbers of characters to be entered in this Field (= max length of the forename).

Field Properties

General	
Field Size	30
Format	
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Allow Zero Length	Yes
Indexed	No
Unicode Compression	Yes
IME Mode	No Control
IME Sentence Mode	None
Smart Tags	

The maximum number of characters you can enter in the field. The largest maximum you can set is 255. Press F1 for help on field size.

Design view. F6 = Switch panes. F1 = Help.

# Make a Field

The screenshot shows the Microsoft Access interface with the 'Patient' table in Design view. The 'Forename' field is selected, and the 'Field Properties' task pane is open, showing the 'Required' property set to 'No'. A red arrow points to the 'Required' dropdown menu.

Select whether a forename always must be entered. It is your call. But since many patients may have the same Surname it might be a good idea to select yes.

Replete the sequence and enter a field for Surname

Field Name	Data Type	Description
ID	AutoNumber	
Forename	Text	

Property	Value
Field Size	30
Required	No
Allow Zero Length	Yes
Indexed	No
Unicode Compression	Yes
IME Mode	No Control
IME Sentence Mode	None
Smart Tags	

# Enter more Fields

Database6 : Database (Access 2007 - 2010) - Microsoft Access

File Home Create External Data Database Tools Design

Views Primary Key Builder Test Validation Rules Insert Rows Delete Rows Modify Lookups Property Indexes Sheet Show/Hide Create Data Macros Rename/Delete Macro Relationships Object Dependencies Relationships

All Access Objects Search... Tables Patient

Field Name	Data Type	Description
ID	AutoNumber	
Forename	Text	
Surname	Text	
Birthdate	Date/Time	

Field Properties

General Lookup Format

IME Mode No Control  
IME Sentence Mode None  
Smart Tags  
Text Align General  
Show Date Picker For dates

Design view. F6 = Switch panes. F1 = Help. Num Lock

Now create a Field for the patients birthdate

Select 'Data Type' format as 'Date/Time'



# Database in Microsoft Access

Click the 'Format' drop down menu

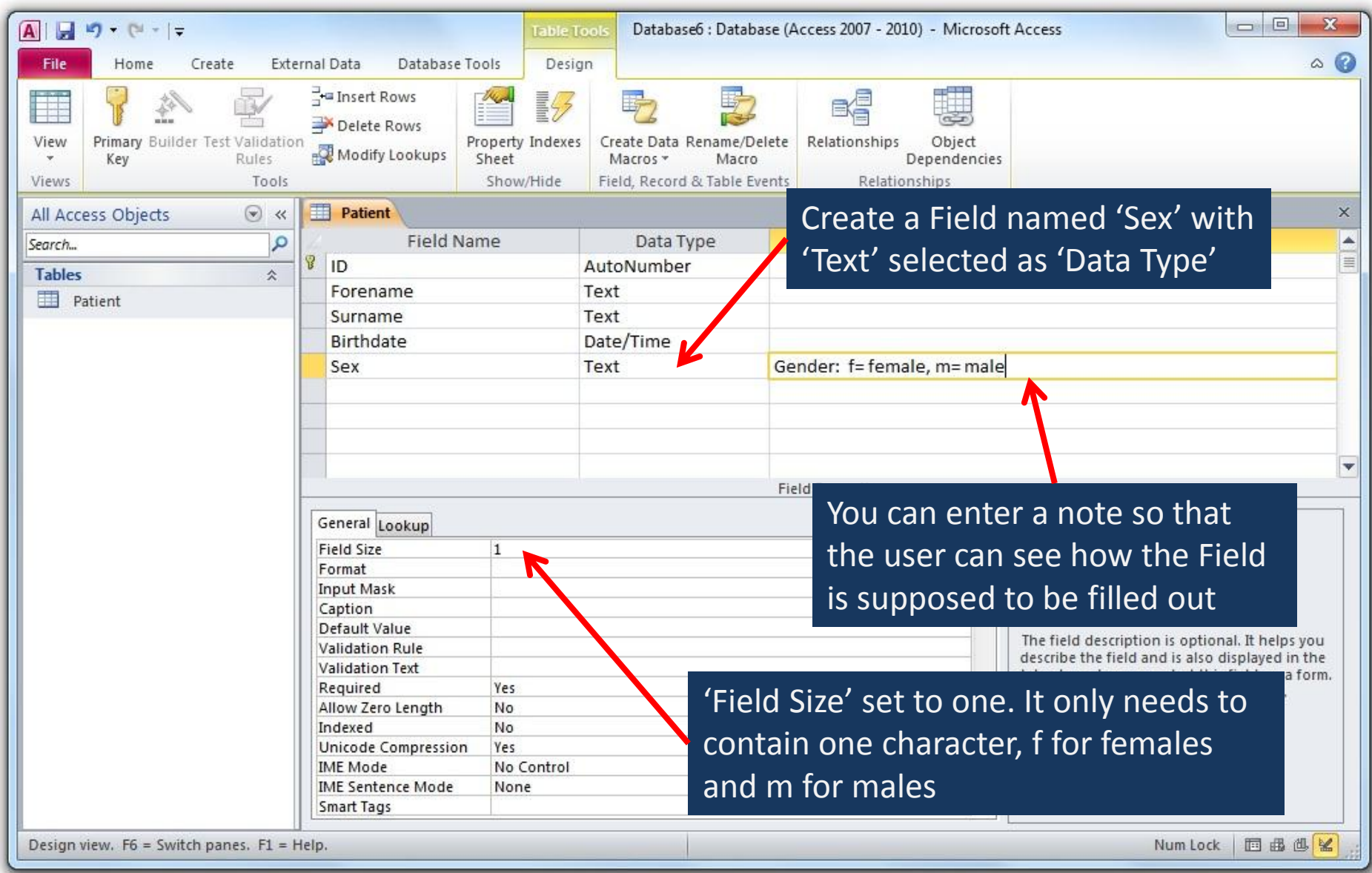
Select the 'Short Date' format. Recommend to use the format year-month-date it makes sorting easier if data needs to be exported to other programs.

Field Name	Data Type
ID	AutoNumber
Forename	Text
Surname	Text
Birthdate	Date/Time

Property	Value
Format	Short Date
Input Mask	General Date
Caption	Long Date
Default Value	Medium Date
Validation Rule	Short Date
Validation Text	Long Time
Required	Medium Time
Indexed	Short Time
IME Mode	No Control
IME Sentence Mode	None
Smart Tags	
Text Align	General
Show Date Picker	For dates



# Enter more Fields



# Enter more Fields

Enter three Fields named 'Measure 1', 'Measure 2' and the third one with the same name as the second one 'Measure 2'

Field Name	Field Type	Field Properties
ID	AutoNumber	
Forename	Text	
Surname	Text	
Birthdate	Date/Time	
Sex	Text	Gender: f= female, m= male
Measure 1	Number	
Measure 2	Number	
Measure 2	Number	Field Size: Integer, Decimal Places: 0

It will most likely be for numeric values – select which type of numeric value it is - this one is selected as an integer – of course it comes without decimals

# Enter more Fields

Enter three Fields named 'Measure 1', 'Measure 2' and the third one with the same name as the second one 'Measure 2'

Field Name	Field Type	Field Properties
ID	AutoNumber	
Forename	Text	
Surname	Text	
Birthdate	Date/Time	
Sex	Text	Gender: f= female, m= male
Measure 1	Number	
Measure 2	Number	
Measure 2	Number	Field Size: Integer, Decimal Places: 0

It will most likely be for numeric values – select which type of numeric value it is - this one is selected as an integer – of course it comes without decimals

# Enter Yes/No Field

Database6 : Database (Access 2007 - 2010) - Microsoft Access

File Home Create External Data Database Tools Design

View Primary Key Builder Test Validation Rules Modify Lookups Property Indexes Sheet Show/Hide Create Data Macros Rename/Delete Macro Relationships Object Dependencies

All Access Objects

Search...

Tables

Patient

Field Name	Data Type	Description
ID	AutoNumber	
Forename	Text	
Surname	Text	
Birthdate	Date/Time	
Sex	Text	Gender: f= female, m= male
Measure 1	Number	
Measure 2	Number	
Measure 2	Number	
Married	Yes/No	

Enter the 'Field' named Married With 'Yes/No' selected as 'Data Type'

Field Properties

General Lookup

Format	True/False
Caption	
Default Value	0
Validation Rule	
Validation Text	
Indexed	No
Text Align	General

The data type determines the kind of values that users can store in the field. Press F1 for help on data types.

Design view. F6 = Switch panes. F1 = Help.

Num Lock



# Enter Memo Field

A new Field with 'Field Name' = "Comments" and 'Memo' selected as 'Data Type'. Description "Comments can be entered here"

Don't forget that 'Rich Text' is explained in the bottom corner

'Rich Text' is selected in 'Text Format'

Choose Rich text to store text as HTML and allow rich formatting. Choose Plain text to store only text. Avoid using Rich text if data might be used in Microsoft Access 2003 or earlier.

Field Name	Data Type	Field Properties
ID	Text	
Forename	Text	
Surname	Text	
Birthdate	Date/Time	
Sex	Text	Gender: f= female, m=
Measure 1	Number	
Measure 2	Number	
Measure 2	Number	
Married	Yes/No	
Comment	Memo	Comments can be entered here

Field Properties

General | Lookup

Property	Value
Format	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Allow Zero Length	Yes
Indexed	No
Unicode Compression	Yes
IME Mode	No Control
IME Sentence Mode	None
Smart Tag	
Text Format	Rich Text
Text Align	Left

Design view. F6 = Switch panes. F1 = Help.

# Enter Memo Field

The last Field for now has 'Field Name' = "Data entered" and 'Date/Time' selected as 'Data Type'

Select Format = 'General Date' that allows to enter not only a date but also time in H24 format

Field Name	Data Type	Description
ID	AutoNumber	
Forename	Text	
Surname	Text	
Birthdate	Date/Time	
Sex	Text	Gender: f= female, m=
Measure 1	Number	
Measure 2	Number	
Measure 2	Number	
Married	Yes/No	
Comment	Memo	Comments can be entered here
Date entered	Date/Time	

Field Properties

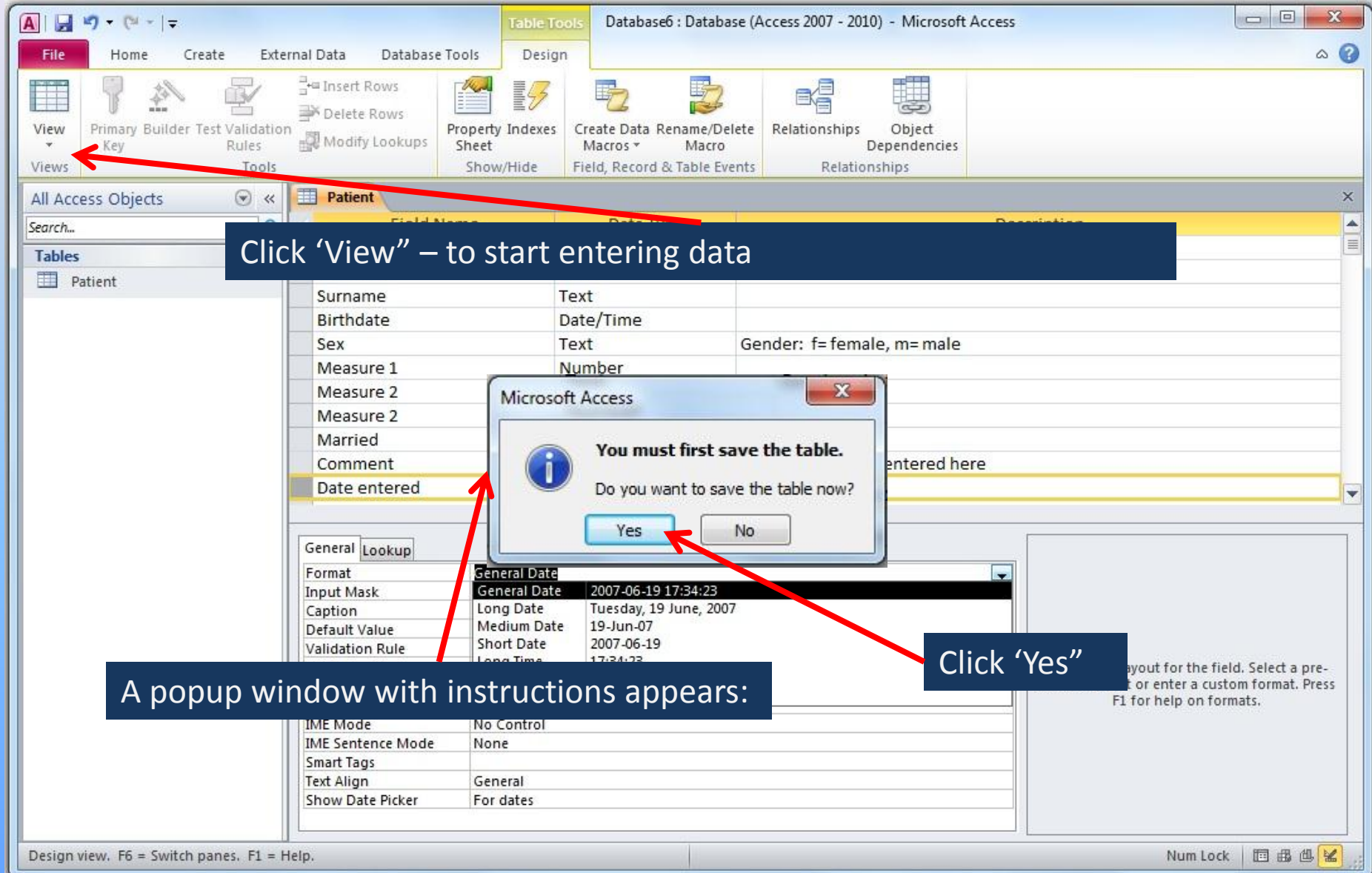
Property	Value
Format	General Date
Input Mask	General Date
Caption	Long Date
Default Value	Medium Date
Validation Rule	Short Date
Validation Text	Long Time
Required	Medium Time
Indexed	Short Time
IME Mode	No Control
IME Sentence Mode	None
Smart Tags	
Text Align	General
Show Date Picker	For dates

The display layout for the field. Select a pre-defined format or enter a custom format. Press F1 for help on formats.

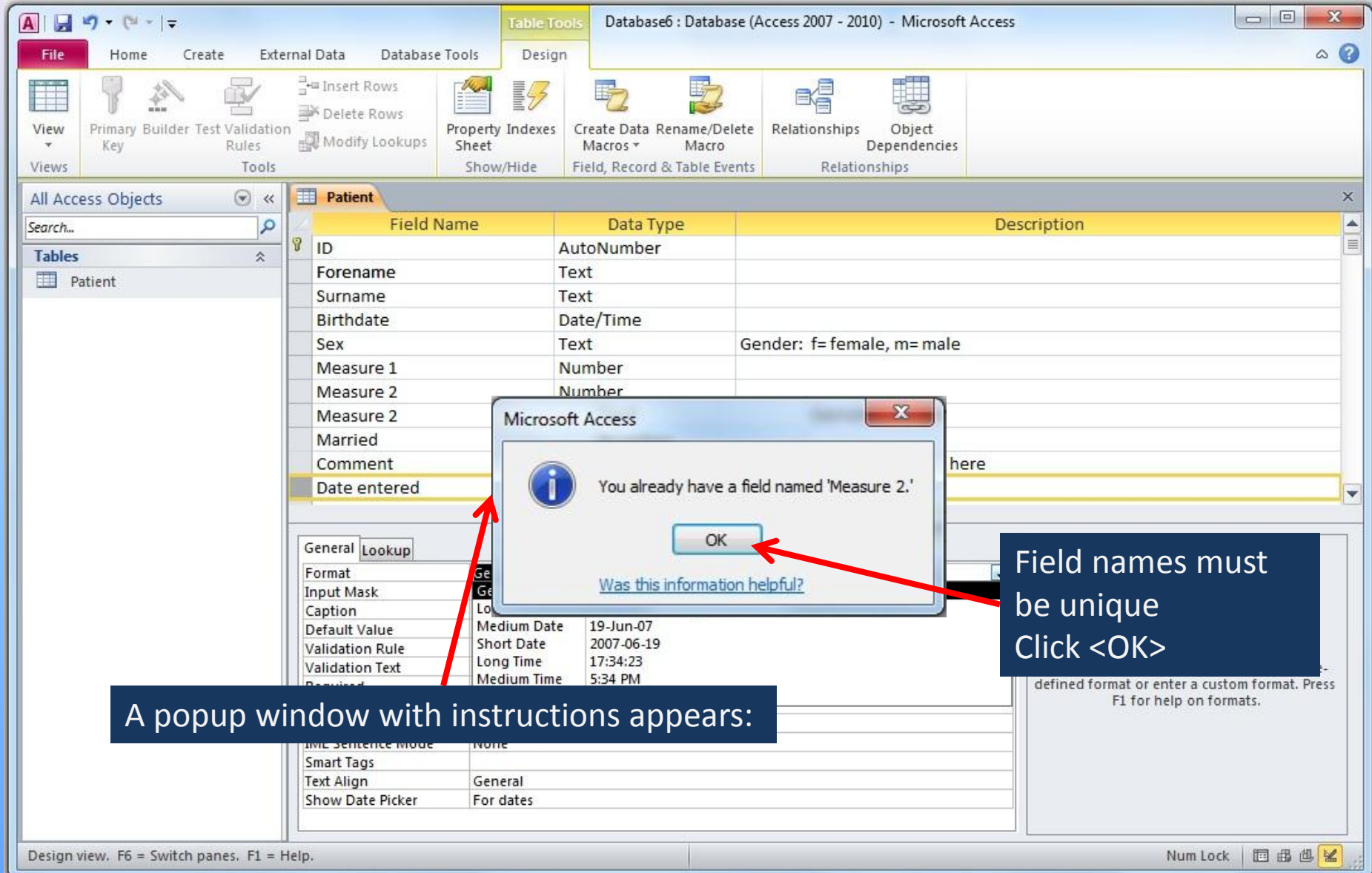
Design view. F6 = Switch panes. F1 = Help.



# Save the Table



# Fields must have a unique name



# Edit a Field

When finished click <View>

Save again click <Yes>

Edit the Field Name. New name 'Measure 3'

Microsoft Access

**You must first save the table.**

Do you want to save the table now?

Yes No

Field Name	Data Type	Description
ID	AutoNumber	
Forename	Text	
Surname	Text	
Birthdate	Date/Time	
Sex	Text	
Measure 1	Number	
Measure 2	Number	
Measure 3	Number	
Married	Yes/No	
Comment	Memo	
Date entered	Date/Time	

Field Properties

Field Name	Data Type
Field Size	Integer
Format	
Decimal Places	0
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Indexed	No
Smart Tags	
Text Align	General

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

# Enter Records(Data)

Database6 : Database (Access 2007 - 2010) - Microsoft Access

File Home Create External Data Database Tools Fields Table

View Paste Copy Cut Format Painter Filter Sort & Filter Records Find Text Formatting

All Access Objects Search... Patient

Table Patient

ID	Forename	Surname	Birthdate	Sex	Measure 1	Measure 2	Measure 3	Married	Comment	Date entered	Click to Add
(New)											

You enter data in the 'cells' just as in any spreadsheet

**Remember automatic.** You can't do anything – when a record is entered the number is generated and even if you want to delete the record that number can't be reassigned to a new patient – except if you overwrite the data in each field – but not advisable

Navigation

Shows which record you are working on

Record: 1 of 1 No Filter Search

Datasheet View Num Lock



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