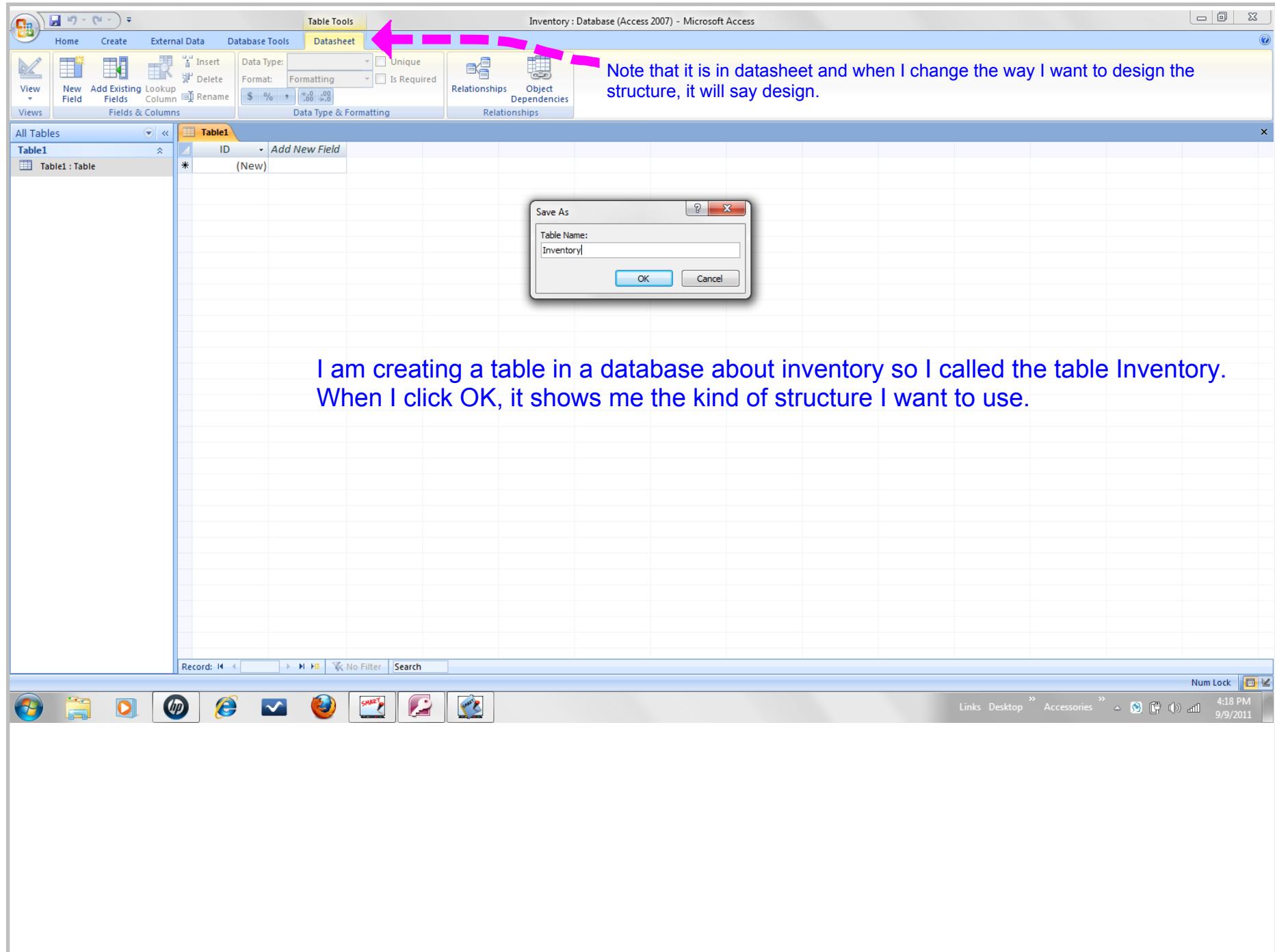


This is not the presentation of the table structure that I want to use so I go and click on view and it asks me for a TableName.



I am creating a table in a database about inventory so I called the table Inventory. When I click OK, it shows me the kind of structure I want to use.

Inventory : Database (Access 2007) - Microsoft Access

Table Tools

Home Create External Data Database Tools Design

View Primary Key Builder Test Validation Rules Tools

Insert Rows Delete Rows Lookup Column Property Indexes Sheet Show/Hide

All Tables Inventory

Inventory : Table

Field Name ID Data Type AutoNumber Description

My problem now is that I do not like the FieldName they choose and I do not want a datatype of AutoNumber so I need to fix it.

Note that auto number means the first record will be 1, the second 2 etc. I want to use an inventory number.

Field Properties

General Lookup

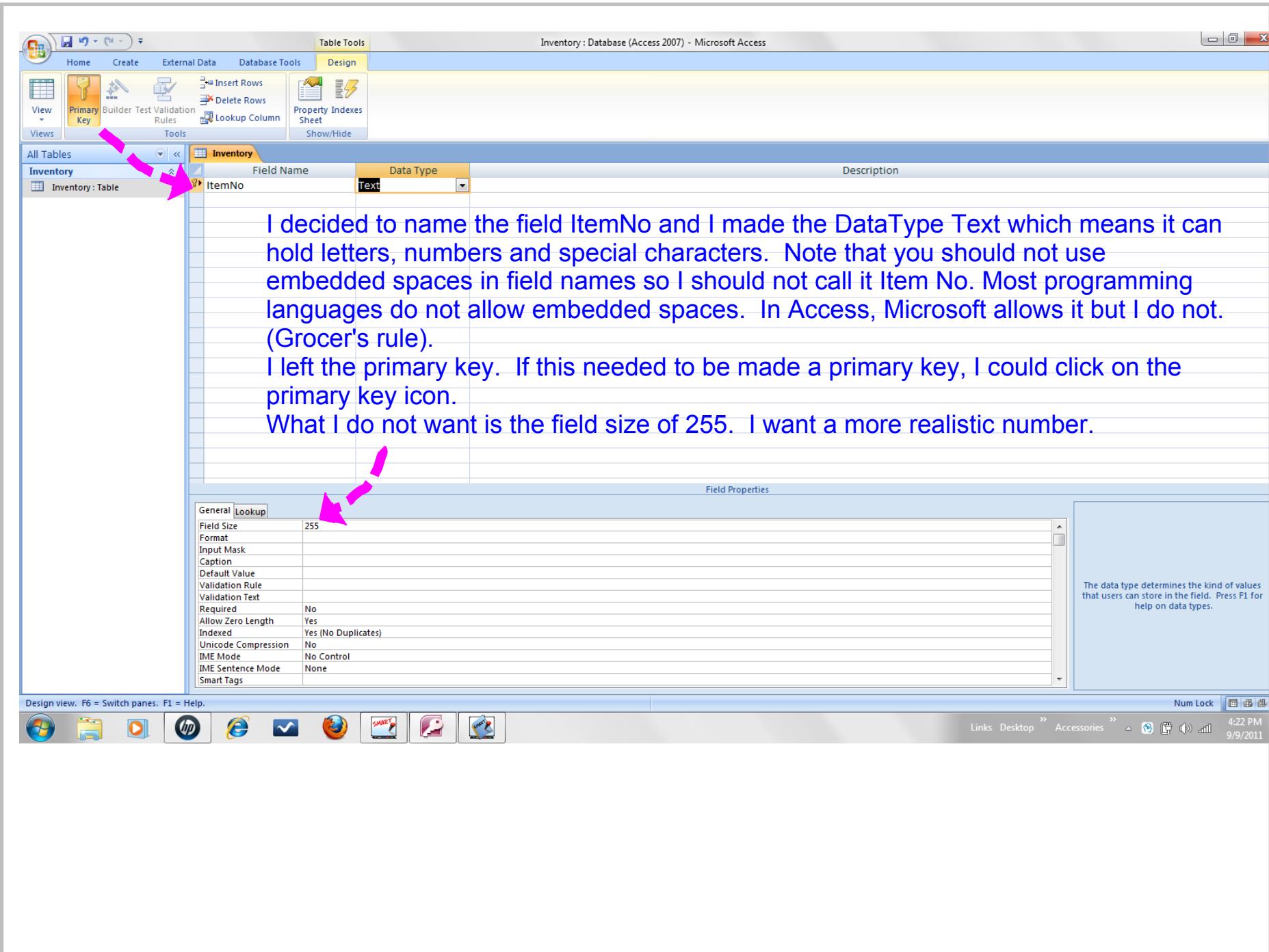
Field Size	Long Integer
New Values	Increment
Format	
Caption	
Indexed	Yes (No Duplicates)
Smart Tags	
Text Align	General

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.

Links Desktop >> Accessories >> 4:20 PM 9/9/2011

Num Lock



I decided to name the field ItemNo and I made the DataType Text which means it can hold letters, numbers and special characters. Note that you should not use embedded spaces in field names so I should not call it Item No. Most programming languages do not allow embedded spaces. In Access, Microsoft allows it but I do not. (Grocer's rule).

I left the primary key. If this needed to be made a primary key, I could click on the primary key icon.

What I do not want is the field size of 255. I want a more realistic number.

Inventory : Database (Access 2007) - Microsoft Access

Table Tools

Home Create External Data Database Tools Design

View Primary Key Builder Test Validation Rules Tools

All Tables Inventory

Inventory : Table

Inventory

Field Name	Data Type	Description
ItemNo	Text	

I decided to use leading uppercase on each word.  
Probably it is more common to see lower case on the first word and upper case on the first letter of a new word.  
You can also use an underscore between words. Just remember, no embedded spaces in field names.

Field Properties

General Lookup

Field Size	5
Format	
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Allow Zero Length	Yes
Indexed	Yes (No Duplicates)
Unicode Compression	No
IME Mode	No Control
IME Sentence Mode	None
Smart Tags	

I decided that 5 characters was enough to hold the ItemNo in my business.

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.

Links Desktop >> Accessories >> 4:26 PM 9/9/2011

Inventory : Database (Access 2007) - Microsoft Access

Table Tools Design

Home Create External Data Database Tools Design

View Primary Builder Test Validation Rules Tools

Insert Rows Delete Rows Lookup Column Property Indexes Sheet Show/Hide

All Tables Inventory : Table

Inventory Field Name Data Type Description

ItemNo Text

ItemName Text

My next field is ItemName and I made it a text field of 40 characters.

Field Properties

General Lookup

Field Size 40

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 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.

Links Desktop Accessories 4:28 PM 9/9/2011

Inventory : Database (Access 2007) - Microsoft Access

Table Tools Design

Home Create External Data Database Tools Design

View Primary Key Validation Rules Tools

All Tables Inventory

Inventory : Table

Field Name Data Type Description

ItemNo Text

ItemName Text

Dept Text

Field Properties

General Lookup

Field Size 2

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.

Links Desktop > Accessories > 4:30 PM 9/9/2011

Field Name	Data Type	Description
ItemNo	Text	
ItemName	Text	
Dept	Text	

Next I added a Dept field which is text and 2 characters.

Inventory : Database (Access 2007) - Microsoft Access

Table Tools Design

All Tables Inventory

Inventory : Table

Field Name Data Type Description

ItemNo Text

ItemName Text

Dept Text

Cost Number

Cost is a number and I clicked on the arrow in the field size field and select single which allows for a small decimal number.

Field Properties

General Lookup

Field Size Single

Format Auto

Decimal Places Auto

Input Mask

Caption

Default Value

Validation Rule

Validation Text

Required No

Indexed No

Smart Tags

Text Align General

The size and type of numbers to enter in the field. The most common settings are Double and Long Integer. If joining this field to a AutoNumber field in a many-to-one relationship, this field must be Long Integer.

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

Links Desktop >> Accessories >> 4:32 PM 9/9/2011

Inventory : Database (Access 2007) - Microsoft Access

Table Tools Design

Views Primary Key Validation Rules Tools

All Tables Inventory : Table

Inventory

Field Name	Data Type	Description
ItemNo	Text	
ItemName	Text	
Dept	Text	
Cost	Number	
Price	Number	

Now I put in price. Note that single and other numbers have a predetermined length so you do not assign a number as you do with text fields.

Field Properties

General Lookup

Field Size	Single
Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Indexed	No
Smart Tags	
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.

Links Desktop >> Accessories >> 4:35 PM 9/9/2011

Views Primary Key Validation Rules Tools

All Tables Inventory : Table

Inventory

Field Name	Data Type	Description
ItemNo	Text	
ItemName	Text	
Dept	Text	
Cost	Number	
Price	Number	

Now I put in price. Note that single and other numbers have a predetermined length so you do not assign a number as you do with text fields.

Field Properties

General Lookup

Field Size	Single
Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Indexed	No
Smart Tags	
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.

Links Desktop >> Accessories >> 4:35 PM 9/9/2011

Inventory : Database (Access 2007) - Microsoft Access

Table Tools Design

Views Primary Key Builder Test Validation Rules Tools

All Tables Inventory

Inventory : Table

	Field Name	Data Type	Description
	ItemNo	Text	
	ItemName	Text	
	Dept	Text	
	Cost	Number	
	Price	Number	
	OnHand	Number	

Now I am setting up OnHand as a number with a field size of integer.  
Remember this has a length fixed by Microsoft.

Field Properties

General Lookup

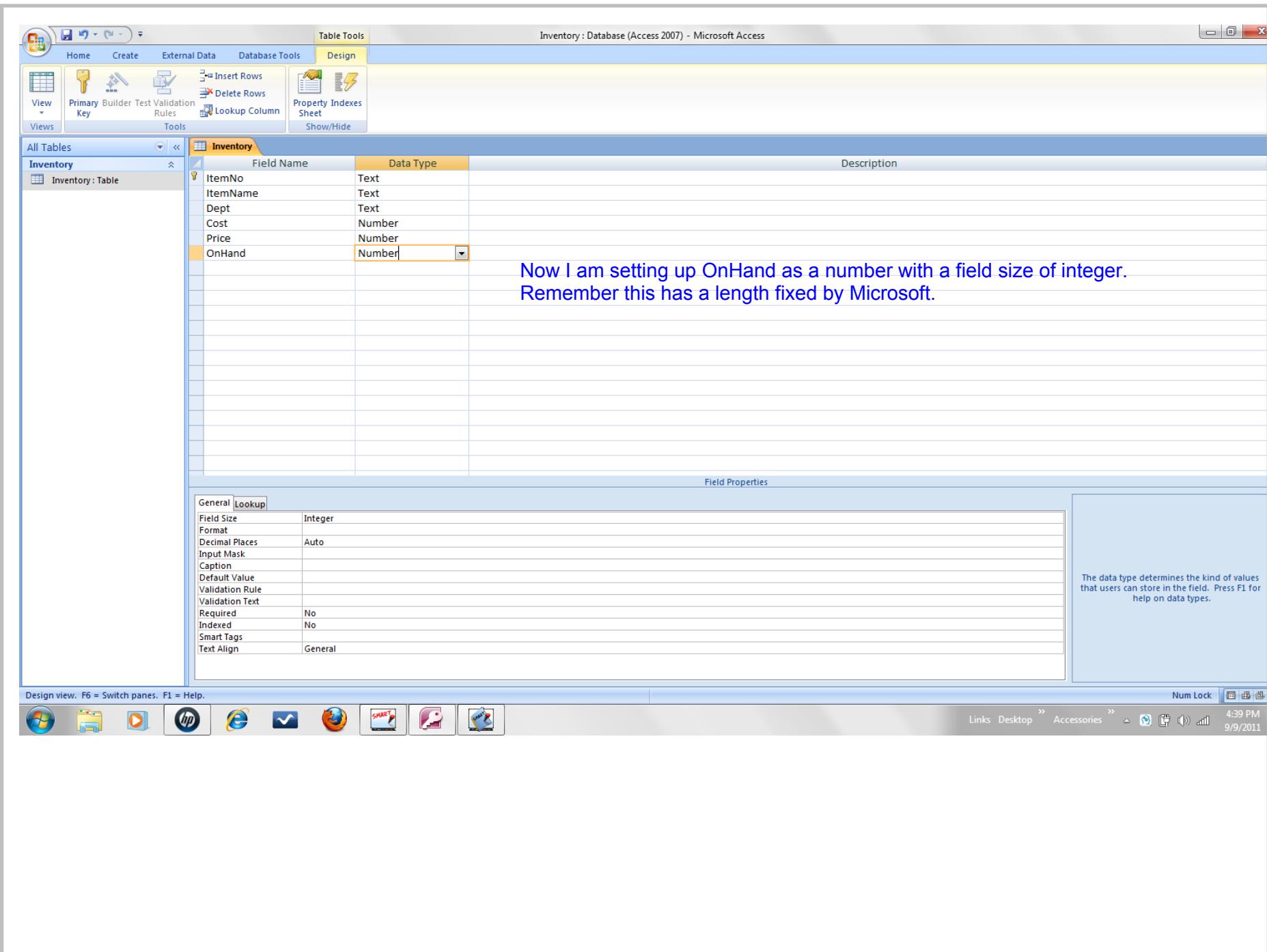
Field Size	Integer
Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Indexed	No
Smart Tags	
Text Align	General

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

Links Desktop » Accessories » 4:39 PM 9/9/2011



Inventory : Database (Access 2007) - Microsoft Access

Table Tools Design

Primary Builder Test Validation Key Rules

Views Tools

All Tables Inventory

Inventory : Table

Field Name Data Type Description

ItemNo Text

ItemName Text

Dept Text

Cost Number

Price Number

OnHand Number

OnOrder Number

ReorderPoint Number

Both OnOrder and ReorderPoint are numbers with field size integer.

Field Properties

General Lookup

Field Size Integer

Format Auto

Decimal Places Auto

Input Mask

Caption

Default Value

Validation Rule

Validation Text

Required No

Indexed No

Smart Tags

Text Align General

The size and type of numbers to enter in the field. The most common settings are Double and Long Integer. If joining this field to a AutoNumber field in a many-to-one relationship, this field must be Long Integer.

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

Links Desktop >> Accessories >> Num Lock 4:41 PM 9/9/2011

Title: Sep 9-4:41 PM (12 of 31)

Now I come over to View so I can start entering data. It prompts me first to save the table.

Inventory : Database (Access 2007) - Microsoft Access

Table Tools

Home Create External Data Database Tools Design

Views Primary Builder Test Validation Rules Tools

Insert Rows Delete Rows Lookup Column

Property Indexes Sheet Show/Hide

All Tables Inventory

Inventory : Table

Field Name Data Type Description

ItemNo	Text	
ItemName	Text	
Dept	Text	
Cost	Number	
Price	Number	
OnHand	Number	
OnOrder	Number	
ReorderPoint	Number	

Microsoft Office Access

You must first save the table.  
Do you want to save the table now?

Yes No

Field Properties

General Lookup

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

The size and type of numbers to enter in this field. The most common settings are Double and Long Integer. If joining this field to an AutoNumber field in a many-to-one relationship, this field must be Long Integer.

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

Links Desktop Accessories Num Lock 4:42 PM 9/9/20

Inventory : Database (Access 2007) - Microsoft Access

Table Tools Datasheet

Home Create External Data Database Tools Datasheet

Views Paste Cut Copy Format Painter Clipboard

Font Rich Text

Calibri 11

Refresh All New Totals Save Spelling Delete More Filter Advanced Sort & Filter Find Replace Go To Select

All Tables Inventory

Inventory : Table

ItemNo ItemName Dept Cost Price OnHand OnOrder ReorderPoin Add New Field

\*

Record: 1 of 1 No Filter Search

Datasheet View Num Lock

Links Desktop Accessories 4:44 PM 9/9/2011

Windows Taskbar icons: Start, Computer, Media Center, Internet Explorer, Windows Update, Help和支持, Paint, WordPad, Notepad, My Computer, My Network Places, My Documents, My Pictures, My Music, My Videos, My Computer, My Network Places, My Documents, My Pictures, My Music, My Videos.

Now I have the structure of the table and it is time to start entering data.

Inventory : Database (Access 2007) - Microsoft Access

Home Create External Data Database Tools Datasheet

View Paste Cut Copy Format Painter Clipboard

Font Rich Text

Refresh All New Totals Spelling

Records Filter Advanced Selection

Find Replace Go To Select

All Tables Inventory

Inventory : Table

ItemNo	ItemName	Dept	Cost	Price	OnHand	OnOrder	ReorderPoint	Add New Field
11111	Goodnight Moon	BK		15	22.98	12	40	25
12121	Teddy Bear	SA		17	24.99	2	25	25
12345	Matchbox Dump	TY		5	7.95	5	100	40
22222	Tea set	TY		6.75	8.99	3	10	20
23456	Basketball	SP		20	24.99	24	0	25
33333	Should I Share	BK		5	8.95	11	10	20
34567	Piggy	SA		75	9.99	5	20	20
*								

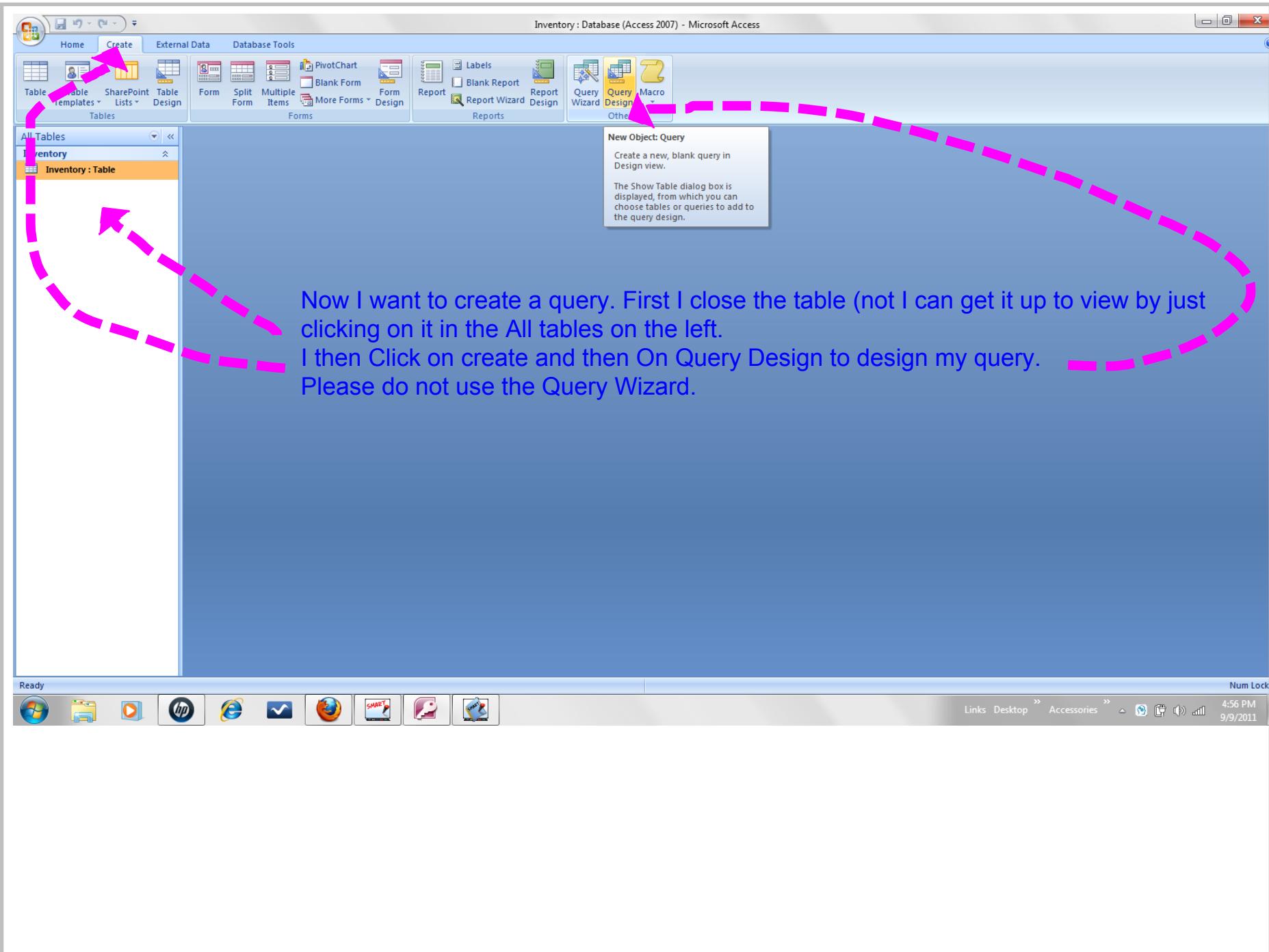
Record: 4 5 6 7 of 7 Next No Filter Search

Datasheet View Num Lock

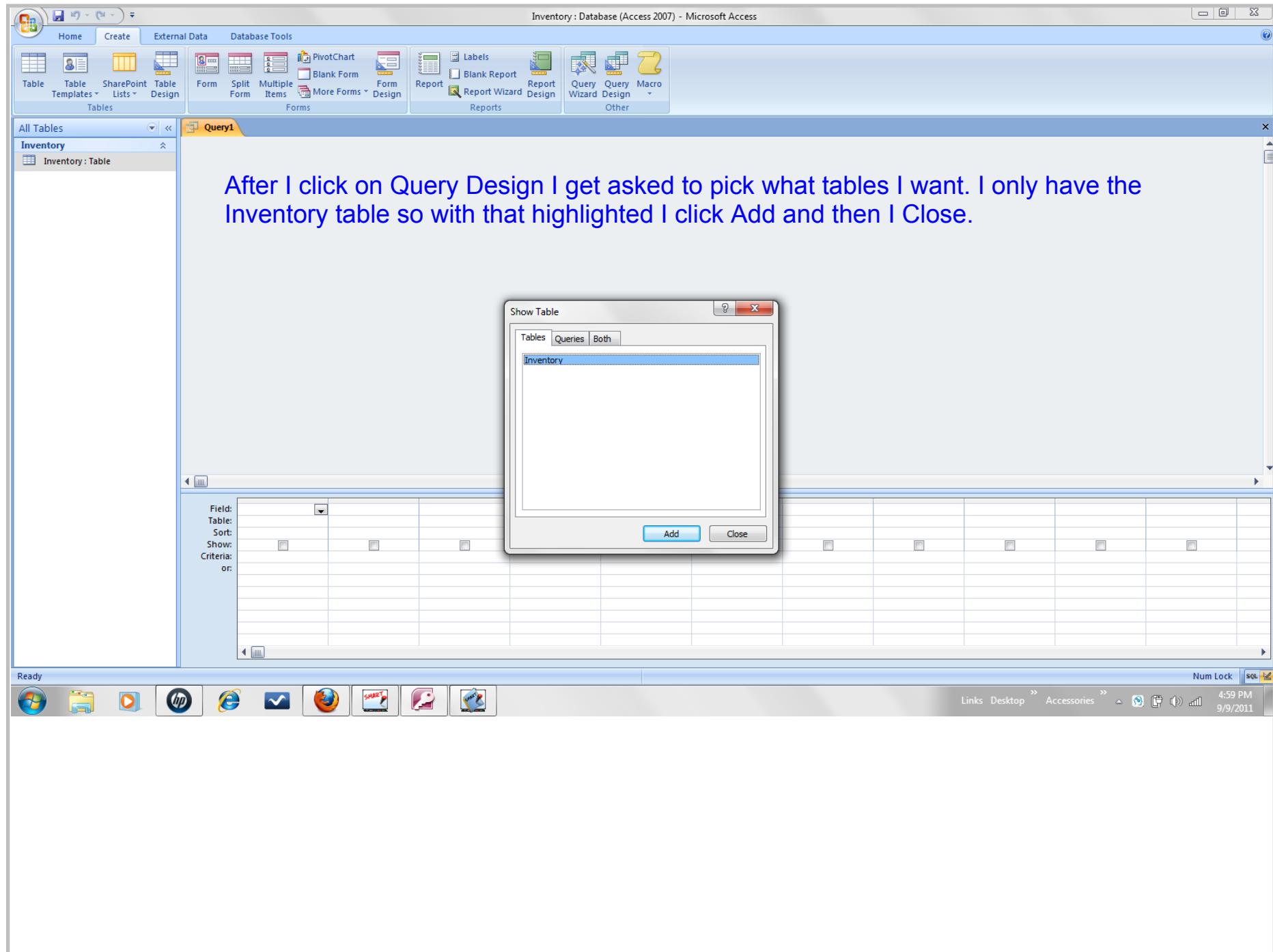
Links Desktop Accessories 4:55 PM 9/9/2011

Windows Taskbar icons: Start, Computer, Network, Help, Internet Explorer, Mail, Snipping Tool, Paint, Media Player, File Explorer.

Now I have entered some data into my table.



Now I want to create a query. First I close the table (not I can get it up to view by just clicking on it in the All tables on the left).  
I then Click on create and then On Query Design to design my query.  
Please do not use the Query Wizard.



Inventory : Database (Access 2007) - Microsoft Access

Query Tools Design

View Run Select Make Append Update Crosstab Delete Union Pass-Through Data Definition Show Table Builder Return: All Totals Table Names Parameters Show/Hide

All Tables Inventory : Table Inventory

Query1

Inventory

\* ItemNo ItemName Dept Cost Price OnHand

I can now see the structure of the Inventory table. I will drag the fields I want to have as part of my query down to the query layout below.

Field: Table: Sort: Show: Criteria: or:

Ready Num Lock

Links Desktop >> Accessories >> 5:01 PM 9/9/2011

Title: Sep 9-5:00 PM (18 of 31)

Inventory : Database (Access 2007) - Microsoft Access

Home Create External Data Database Tools Design

View Run Select Make Table Append Update Crosstab Delete Union Pass-Through Data Definition Show Table Builder Return All Query Type Query Setup Totals Table Names Parameters Show/Hide

All Tables Inventory Inventory : Table

Query1

Inventory

ItemName	Dept	Cost	Price	OnHand	OnOrder	ReorderPoint
----------	------	------	-------	--------	---------	--------------

I choose 5 fields to drag down to the query. You can also double click.

Field: ItemNo ItemName Dept Price OnHand  
Table: Inventory Inventory Inventory Inventory Inventory  
Sort: Show: Criteria: or:

Ready Fully charged (100%)

Links Desktop >> Accessories >> 5:03 PM 9/9/2011

Inventory : Database (Access 2007) - Microsoft Access

Home Create External Data Database Tools

Views Paste Cut Copy Format Painter Clipboard

Font Rich Text

Records

Sort & Filter Find

All Tables Inventory

Inventory Table

Query1

ItemNo	ItemName	Dept	Price	OnHand
11111	Goodnight Moon BK		22.98	12
12121	Teddy Bear	SA	24.99	2
12345	Matchbox Dump TY		7.95	5
22222	Tea set	TY	8.99	3
23456	Basketball	SP	24.99	24
33333	Should I Share BK		8.95	11
34567	Piggy	SA	9.99	5
*				

This shows the data in the five fields for all of the records in the table.  
If I want to get back to query, I click on the icon with the pencil.

Record: 1 of 7 No Filter Search

Ready Num Lock

Links Desktop » Accessories » 5:04 PM 9/9/2011

The screenshot shows a Microsoft Access 2007 window titled "Inventory : Database (Access 2007) - Microsoft Access". The ribbon tabs are Home, Create, External Data, and Database Tools. The Home tab is selected. The ribbon icons include Views, Paste, Cut, Copy, Format Painter, Clipboard, Calibri font size 11, Font, Rich Text, Refresh All, New, Totals, Save, Spelling, Delete, More, Filter, Advanced, Toggle Filter, Find, Replace, Go To, and Select. Below the ribbon is a list of tables: "All Tables" and "Inventory". The "Inventory" table is selected. The main area displays a query results grid titled "Query1" with the following data:

ItemNo	ItemName	Dept	Price	OnHand
11111	Goodnight Moon BK		22.98	12
12121	Teddy Bear	SA	24.99	2
12345	Matchbox Dump TY		7.95	5
22222	Tea set	TY	8.99	3
23456	Basketball	SP	24.99	24
33333	Should I Share BK		8.95	11
34567	Piggy	SA	9.99	5
*				

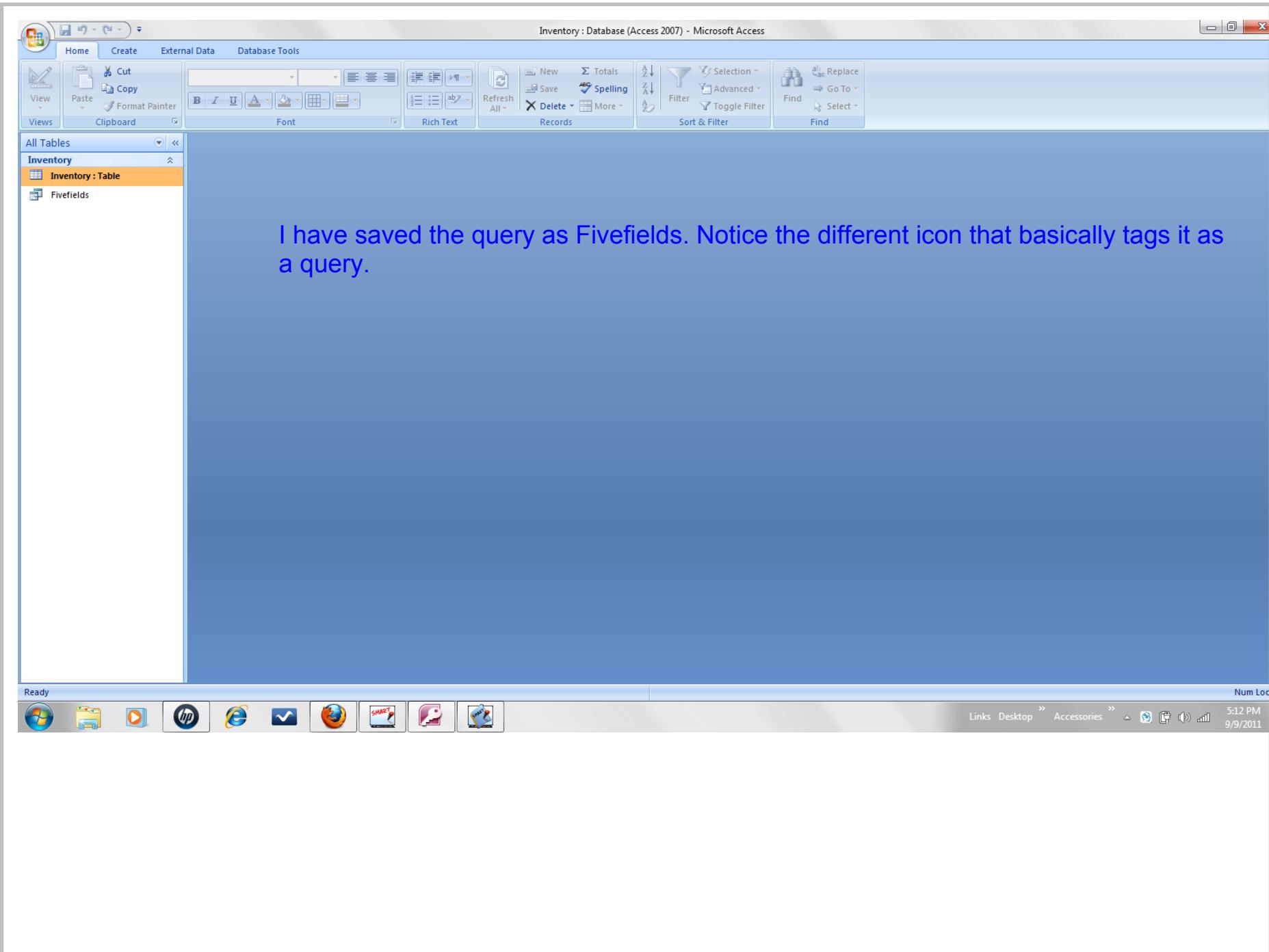
The status bar at the bottom shows "Record: 1 of 7" and "No Filter". A pink dashed arrow points from the "Edit" icon in the ribbon to the pencil icon in the status bar. The taskbar at the bottom includes icons for Start, Computer, Network, Internet Explorer, Windows Update, Help and Support, and Microsoft Office. The system tray shows the date and time as "5:04 PM 9/9/2011".

The screenshot shows the Microsoft Access 2007 interface. The ribbon is visible at the top with tabs like Home, Create, External Data, and Database Tools. A toolbar below the ribbon contains icons for View, Cut, Copy, Format Painter, Clipboard, Refresh All, New, Totals, Save, Spelling, Delete, More, Filter, Advanced, Sort & Filter, Find, Replace, Go To, and Select. On the left, the navigation pane shows 'All Tables' and 'Inventory : Table'. In the center, a query results grid titled 'Query1' displays data from the 'Inventory' table:

ItemNo	ItemName	Dept	Price	OnHand
11111	Goodnight Moon BK		22.98	12
12121	Teddy Bear	SA	24.99	2
12345	Matchbox Dum	TY	7.95	5
22222	Tea set	TY	8.99	3
23456	Basketball	SP	24.99	24
33333	Should I Share BK		8.95	11
34567	Piggy	SA	9.99	5

A pink arrow points from the bottom right towards the 'X' button in the top right corner of the query results window. Below the grid, a message says: "I click on the X and get prompted to save. Then I get prompted to name my query." A 'Save As' dialog box is displayed in the foreground, asking for a 'Query Name:' with the value 'Fivefields' entered. It has 'OK' and 'Cancel' buttons.

Title: Sep 9-5:04 PM (21 of 31)



I have saved the query as Fivefields. Notice the different icon that basically tags it as a query.

Inventory : Database (Access 2007) - Microsoft Access

Home Create External Data Database Tools Design

View Run Select Make Table Append Update Crosstab Delete Union Pass-Through Data Definition Insert Rows Insert Columns Delete Rows Delete Columns Show Table Builder Return: All Totals Table Names Parameters Show/Hide

All Tables Inventory : Table Fivefields

Query1

Inventory

ItemName	Dept	Cost	Price	OnHand	OnOrder	ReorderPoint

On this query I am showing 6 fields and I only want to show records that have BK as the Dept. Note that the BK is in quotes, if I leave them out Access will put them in. Notice that the BK is entered by Criteria.

What it is saying is that if Dept is = "BK" then show the record, otherwise do not show the record.

Pseudocode:

```
if Dept = "BK"
    display
end if
```

Ready

Links Desktop > Accessories > Num Lock 5:14 PM 9/9/2011

The screenshot shows the Microsoft Access 2007 interface with the 'Design' tab selected. A query named 'Query1' is open, displaying a table with six columns: ItemNo, ItemName, Dept, Price, OnHand, and OnOrder. The 'Dept' column is highlighted with a yellow background. In the 'Criteria' row under 'Dept', the value 'BK' is entered. A note in blue text to the right of the query window explains that this query shows records where the 'Dept' field is exactly 'BK', and that leaving the quotes out would result in Access adding them. It also provides the pseudocode for this logic.

Inventory : Database (Access 2007) - Microsoft Access

Home Create External Data Database Tools

Views Cut Copy Format Painter Clipboard

Calibri 11

Font Rich Text

Refresh All New Totals Save Spelling

Records Delete More

Sort & Filter Filter Selection Advanced Toggle Filter Find Replace Go To Select

All Tables Inventory

Inventory : Table Fivefields

Query1

ItemNo	ItemName	Dept	Price	OnHand	OnOrder
11111	Goodnight Mo	BK	22.98	12	40
33333	Should I Share	BK	8.95	11	10
*					

These are the results with BK in dept.

Record: 1 of 2 No Filter Search

Ready Num Lock

Links Desktop Accessories 5:16 PM 9/9/2011

Windows Taskbar icons: Start, My Computer, Media Center, Internet Explorer, Windows Update, Firefox, Smart TV, Pictures, Music, Games

Inventory : Database (Access 2007) - Microsoft Access

Home Create External Data Database Tools Design

View Run Select Make Table Append Update Crosstab Delete Union Pass-Through Data Definition Show Table Builder Return: All Query Setup Totals Table Names Parameters Show/Hide

All Tables Inventory

Inventory : Table Book Fivefields

Query1

Inventory

ItemName	Dept	Cost	Price	OnHand	OnOrder	ReorderPoint

Now I am asking for Dept = "BK" and Price > 15. Note that these are both on the criteria line which puts them in an AND relationship.  
Also note that the 15 is not in quotes because it is a numeric field.

Field: ItemNo  
Table: Inventory  
Sort:  
Show:  
Criteria: or:  
Dept: BK  
Price: >15

Pseudocode:

```
if Dept = "BK"  
    if Price > 15  
        display  
    end if  
end if
```

Ready

Links Desktop » Accessories » 5:19 PM 9/9/2011

These criteria are in an OR relationship. Note that the first criteria is on the criteria line and the second criteria is on the or line.  
This means display the record if either of them are true.

Pseudocode:

```
if Cost > 12
    display
else
    if OnHand > 10
        display
    end if
end if
```

Inventory : Database (Access 2007) - Microsoft Access

Home Create External Data Database Tools

Views Clipboard

Font Rich Text

Records

Sort & Filter Find

All Tables Inventory

Inventory : Table Book Bookandgr15 Fivefields

Query1

ItemNo	ItemName	Dept	Cost	OnHand	Price
11111	Goodnight Moon BK		15	12	22.98
12121	Teddy Bear	SA		17	24.99
23456	Basketball	SP		20	24.99
33333	Should I Share	BK		5	8.95
34567	Piggy	SA		75	9.99
*					

Record: 14 1 of 5 ► ▶ No Filter Search

Pseudocode:

```
if Cost > 12
    display
else
    if OnHand > 10
        display
    end if
end if
```

For Goodnight Moon, both criteria are true but the cost > 12 got the record displayed.  
For Teddy Bear, the cost is > 12 so it displays (note that onhand is not > 10).  
For Basketball, both are true,  
For Should I Share My Ice Cream the cost is not > 12 but the second change of onhand > 10 is met so the record displays.  
For Piggy, I entered 75 (meant to enter 7.5, woops), anyway the cost therefore meets the criteria and the record displays.

Ready

Links Desktop » Accessories » 5:30 PM 9/9/2011

Inventory : Database (Access 2007) - Microsoft Access

Table Tools Datasheet

Home Create External Data Database Tools Datasheet

Views Paste Cut Copy Format Painter Clipboard

Calibri 11

Font Rich Text

Refresh All New Totals Save Spelling Delete More Filter Advanced Sort & Filter Find Replace Go To Select

All Tables Inventory

Inventory : Table Book Bookandgr15 costoronhand Fivefields

Inventory

ItemNo	ItemName	Dept	Cost	Price	OnHand	OnOrder	ReorderPoint	Add New Field
11111	Goodnight Mo BK		15	22.98	12	40	25	
12121	Teddy Bear	SA	17	24.99	2	25	25	
12345	Matchbox Dum	TY	5	7.95	5	100	40	
22222	Tea set	TY	6.75	8.99	3	10	20	
23456	Basketball	SP	20	24.99	24	0	25	
33333	Should I Share	BK	5	8.95	11	10	20	
34567	Piggy	SA	75	9.99	5	20	20	
44444	Green Eggs and BK		8	11.98	5	5	20	
*								

Record: 8 of 8 No Filter Search

Ready Friday, September 09, 2011

Links Desktop Accessories 5:37 PM 9/9/2011

For testing purposes, I decided to add another record in the BK dept.

My query here says that to display, the record has to have BK in Dept and in addition either > 12 in price or > 5 in onhand. When you want something to have to be true in Access you put it on both the criteria line and the or line. Essentially it reads dept is BK and price > 12 OR dept is BK and onhand > 5. Note that Green Eggs and Ham does not meet this criteria. It has a dept of BK but its price11.98 and its onhand is 5.

Pseudocode:

```
if Dept=="BK"
    if Price > 12
        display
    else
        if OnHand > 5
            display
        end if
    end if
end if
```

Inventory : Database (Access 2007) - Microsoft Access

Home Create External Data Database Tools

View Cut Copy Format Painter Clipboard

Font Rich Text

Records

Sort & Filter Find

All Tables Inventory : Table Book Bookandgr15 costoronthand Fivefields

Query1

ItemNo	ItemName	Dept	Cost	Price	OnHand	OnOrder	ReorderPoint
1111	Goodnight Mo! BK	BK	15	22.98	12	40	25
33333	Should I Share	BK	5	8.95	11	10	20
*							

Pseudocode:

```
if Dept="BK"
    if Price > 12
        display
    else
        if OnHand > 5
            display
        end if
    end if
end if
```

Record: 1 of 2 No Filter Search

Ready Num Lock

Links Desktop Accessories 5:44 PM 9/9/2011

Windows Taskbar icons: Start, My Computer, Media Center, Help and Support, Internet Explorer, Firefox, Smart Notebook, Paint, and others.

Title: Sep 9-5:38 PM (31 of 31)