

# Query

Microsoft Office 2010

Amir Hossein Habibi

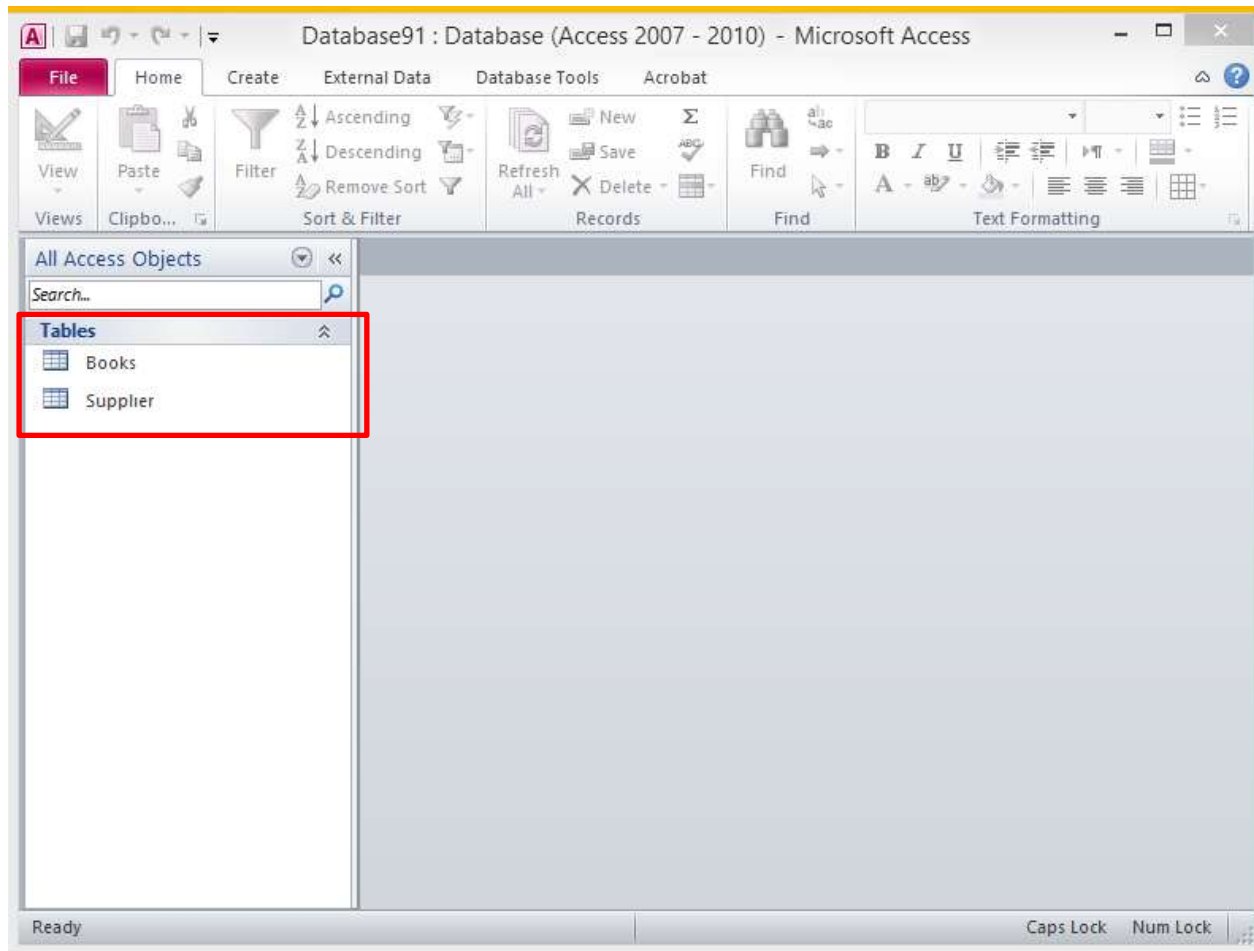
# Introduction

The goal of this class is for you to learn how to create and apply queries to analyze and modify data in a database.

Queries are more flexible and more expansive in their capabilities than filtering with the most significant difference being that queries can draw data from more than one table while filters manipulate data from only one table.

When you create a query, you select fields from a list. You can select specific records by creating criteria that control which records you display. You “run” your query by activating the Run tool. The result of your query is called a recordset or dynaset (recordset with dynamic properties).

# Tables



# Creat Book Table

The screenshot displays the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The 'Table Tools' ribbon is active, showing various options like Filter, Sort & Filter, Records, and Find. The 'All Access Objects' pane on the left shows the 'Books' table selected. The main window displays the 'Books' table in Datasheet View, with the following data:

Book Id	Book Title	OnHand	Cost	SellPrice	Supplier Co	Click
AC23	Accounting	3	27,00 €	50,00 €	SC	
CA06	Calculus	5	14,00 €	27,00 €	AP	
DE09	Design of Expriment	8	7,00 €	13,00 €	BH	
EC34	Economics	7	4,50 €	9,00 €	AP	
FI05	Financial Market	4	6,50 €	12,00 €	AP	
MA01	Managment Information System	3	15,50 €	33,00 €	BH	
OR14	Operation Research	10	4,00 €	8,00 €	SC	
PR02	Probability Model	12	12,00 €	23,00 €	BH	
*						

The status bar at the bottom indicates 'Record: 1 of 8', 'No Filter', and 'Search'. The 'Datasheet View' tab is selected at the bottom left.

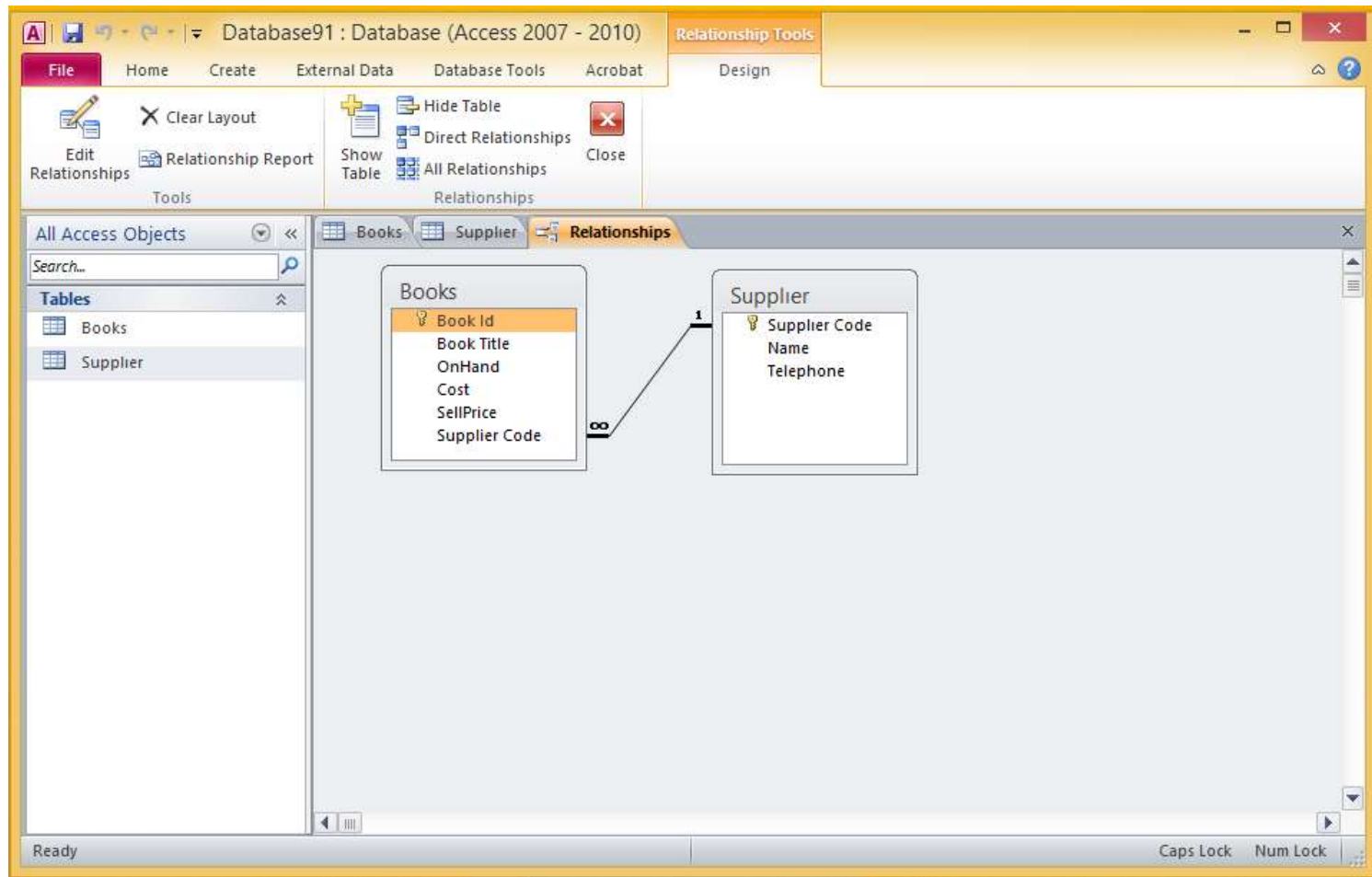
# Creat Supplier Table

The screenshot displays the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The 'Supplier' table is open in Datasheet View. The ribbon at the top shows the 'Table Tools' context menu with tabs for 'Fields' and 'Table'. The 'Table' tab is active, showing options for 'Filter', 'Sort & Filter', 'Records', and 'Find'. The 'Text Formatting' group is also visible. The 'All Access Objects' pane on the left shows the 'Supplier' table selected. The main area displays the following data:

Supplier Cor	Name	Telephone	Click to Add
AP	Antonio patino	6451712	
BH	Bert Huntington	6551222	
SC	Sue Chin	6351542	

The status bar at the bottom indicates 'Record: 1 of 3' and 'No Filter'.

# Relationship



# Query Wizard

The screenshot displays the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The 'Table Tools' ribbon is active, and the 'Query Wizard' icon is highlighted with a red box. A 'New Query' dialog box is open, listing several query wizard options. The 'Simple Query Wizard' is selected and highlighted with a red box. Below the list, a description states: 'This wizard creates a select query from the fields you pick.' The background shows a data table with columns 'SellPrice' and 'Supplier Co'. The status bar at the bottom indicates 'Record: 1 of 8' and 'No Filter'.

SellPrice	Supplier Co	Click
50,00	SC	
27,00	AP	
13,00	BH	
9,00	AP	
12,00	AP	
33,00	BH	
8,00	SC	
23,00	BH	

# Query Wizard

Database91 : Database (Access 2007 - 2010)

Table Tools

File Home Create External Data Database Tools Acrobat Fields Table

Application Parts Table Table Design SharePoint Lists

Templates Tables

All Access Objects

Search...

Tables

Books

Supplier

Simple Query Wizard

Which fields do you want in your query?  
You can choose from more than one table or query.

Tables/Queries

Table: Books

Available Fields:

Cost

Selected Fields:

Book Id  
Book Title  
OnHand  
SellPrice  
Supplier Code

Cancel < Back Next > Finish

SellPrice Supplier Co Click

50,00 ₺	SC
27,00 ₺	AP
13,00 ₺	BH
9,00 ₺	AP
12,00 ₺	AP
33,00 ₺	BH
8,00 ₺	SC
23,00 ₺	BH

Record: 1 of 8 No Filter Search

Simple Query Wizard Caps Lock Num Lock

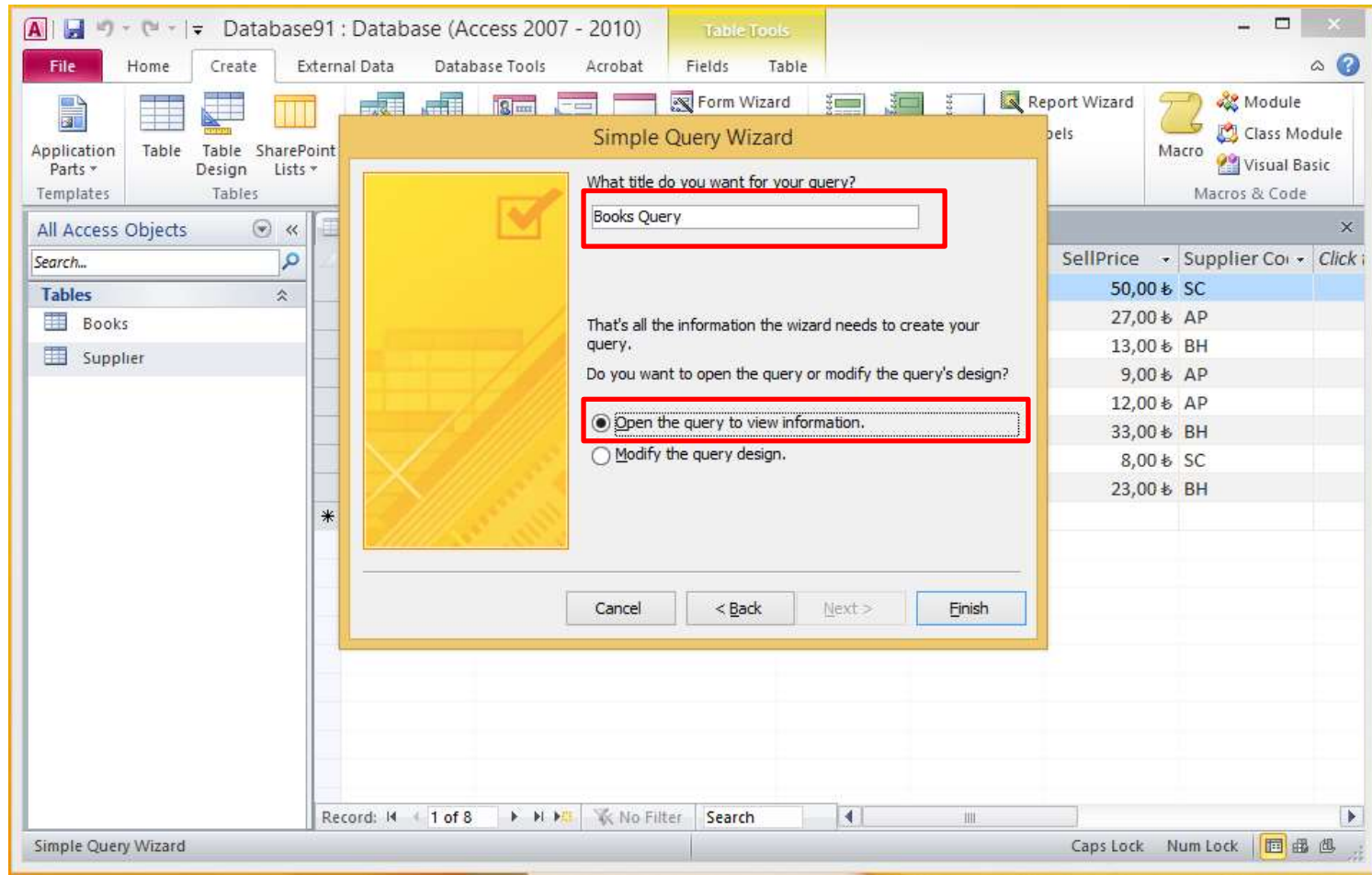


# Query Wizard

The screenshot displays the Microsoft Access interface with the 'Simple Query Wizard' dialog box open. The dialog box asks, 'Would you like a detail or summary query?'. The 'Detail (shows every field of every record)' option is selected and highlighted with a red box. The 'Summary' option is unselected. Below the options is a 'Summary Options ...' button. The background shows a table with columns 'SellPrice' and 'Supplier Co'. The status bar at the bottom indicates 'Record: 1 of 8' and 'No Filter'.

SellPrice	Supplier Co	Click
50,00	SC	
27,00	AP	
13,00	BH	
9,00	AP	
12,00	AP	
33,00	BH	
8,00	SC	
23,00	BH	

# Query Wizard



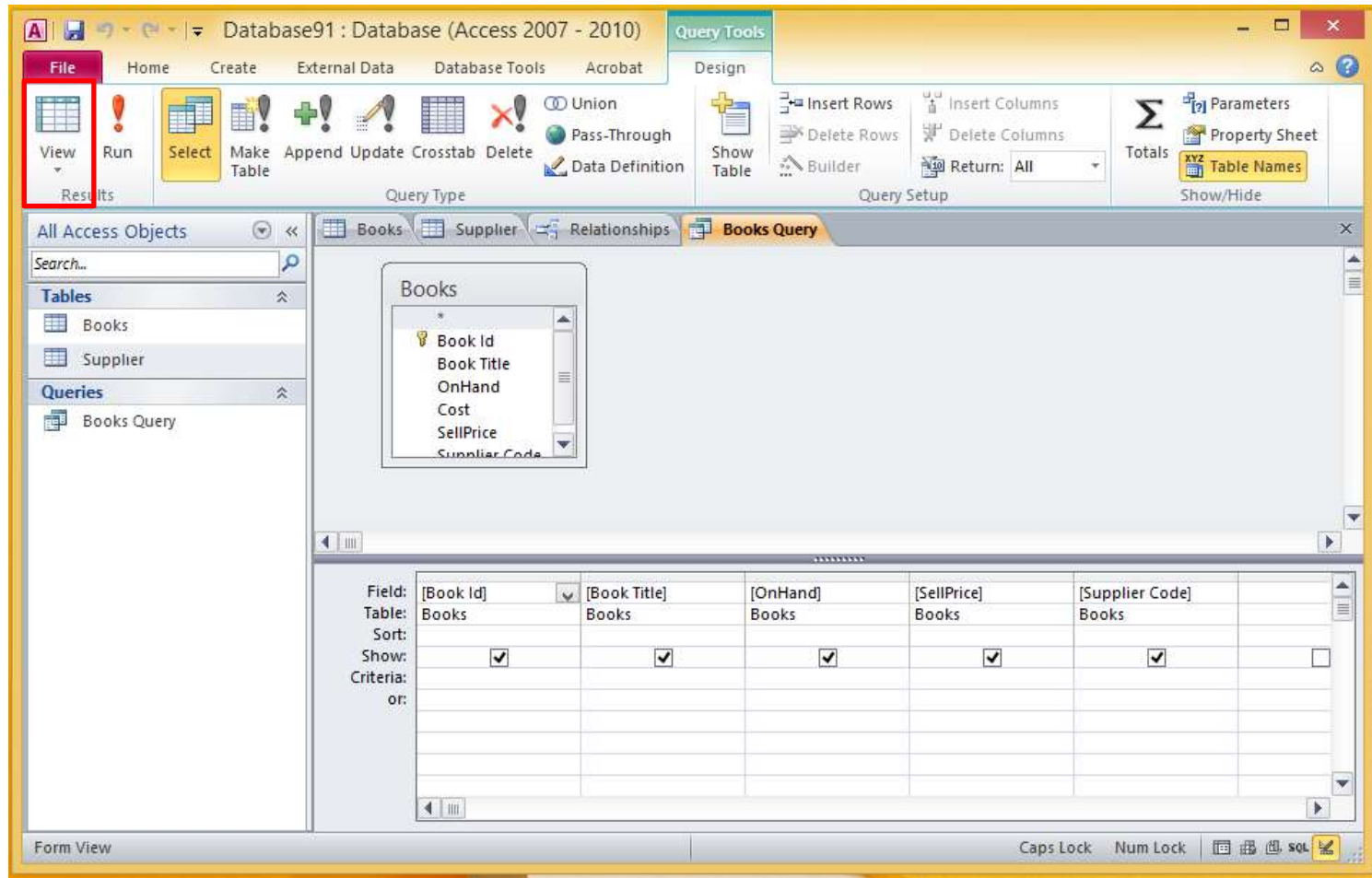
# Query Wizard

The screenshot shows the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Database Tools' ribbon is active, showing options like 'Query Wizard', 'Form Wizard', 'Report Wizard', and 'Module'. The 'All Access Objects' pane on the left shows 'Queries' selected, with 'Books Query' highlighted. The main window displays a data table with the following data:

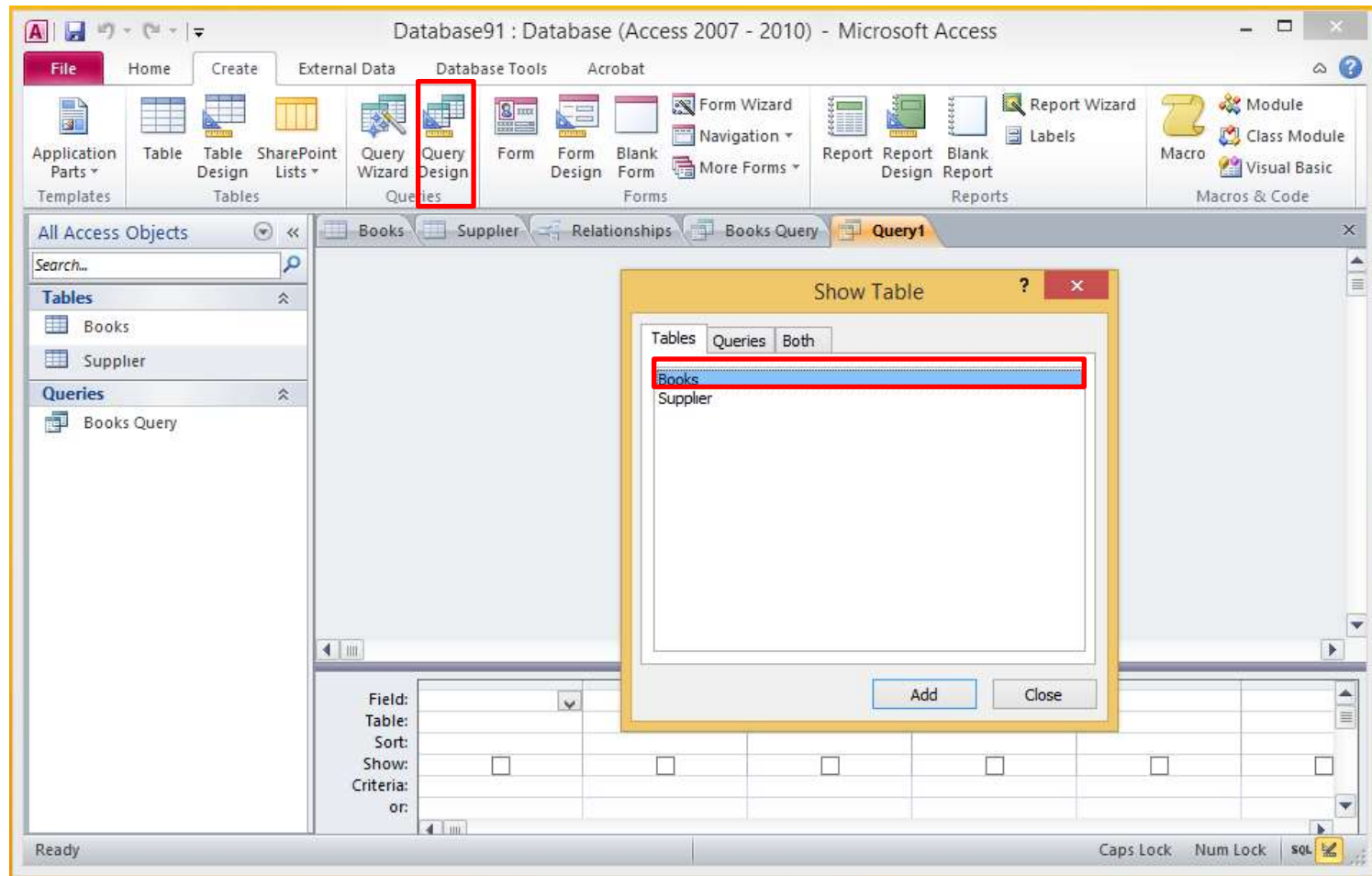
Book Id	Book Title	OnHand	SellPrice	Supplier Co
AC23	Accounting	3	50,00 ₺	SC
CA06	Calculus	5	27,00 ₺	AP
DE09	Design of Exprimtent	8	13,00 ₺	BH
EC34	Economics	7	9,00 ₺	AP
FI05	Financial Market	4	12,00 ₺	AP
MA01	Managment Information System	3	33,00 ₺	BH
OR14	Operation Research	10	8,00 ₺	SC
PR02	Probability Model	12	23,00 ₺	BH

The status bar at the bottom indicates 'Record: 1 of 8', 'No Filter', and 'Search'. The 'Datasheet View' tab is active at the bottom left.

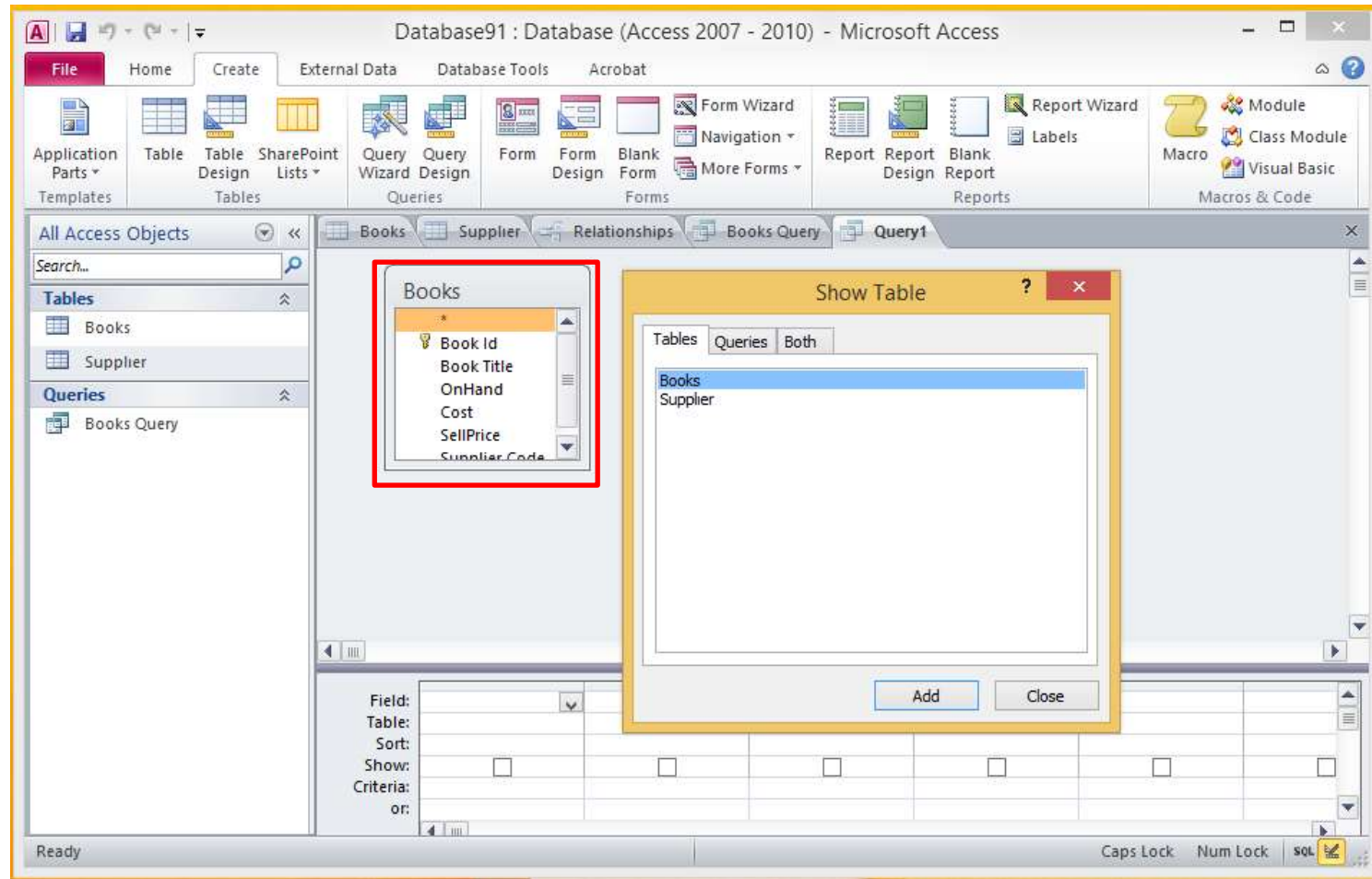
# Query Wizard



# Query Design

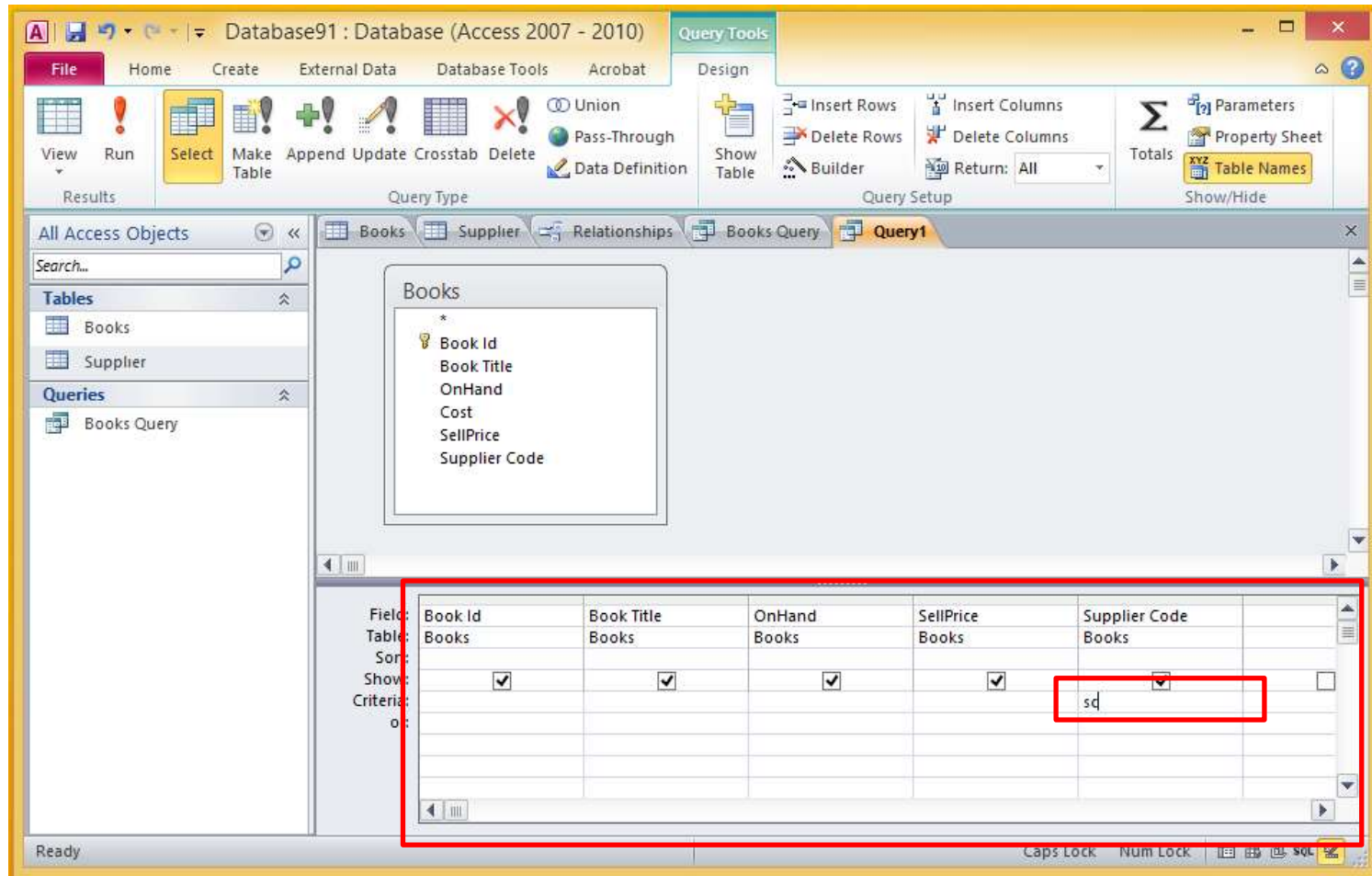


# Query Design





# Criteria



# Criteria

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Home' ribbon is active, showing options for 'Filter', 'Sort & Filter', 'Records', and 'Text Formatting'. The 'All Access Objects' pane on the left shows 'Tables' (Books, Supplier) and 'Queries' (Books Query). The main window displays a query named 'Query1' with the following data:

Book Id	Book Title	OnHand	SellPrice	Supplier Co
AC23	Accounting	3	50,00 €	SC
OR14	Operation Research	10	8,00 €	SC

The status bar at the bottom indicates 'Record: 1 of 2', 'No Filter', and 'Search'. The system tray shows 'Caps Lock', 'Num Lock', and a SQL icon.

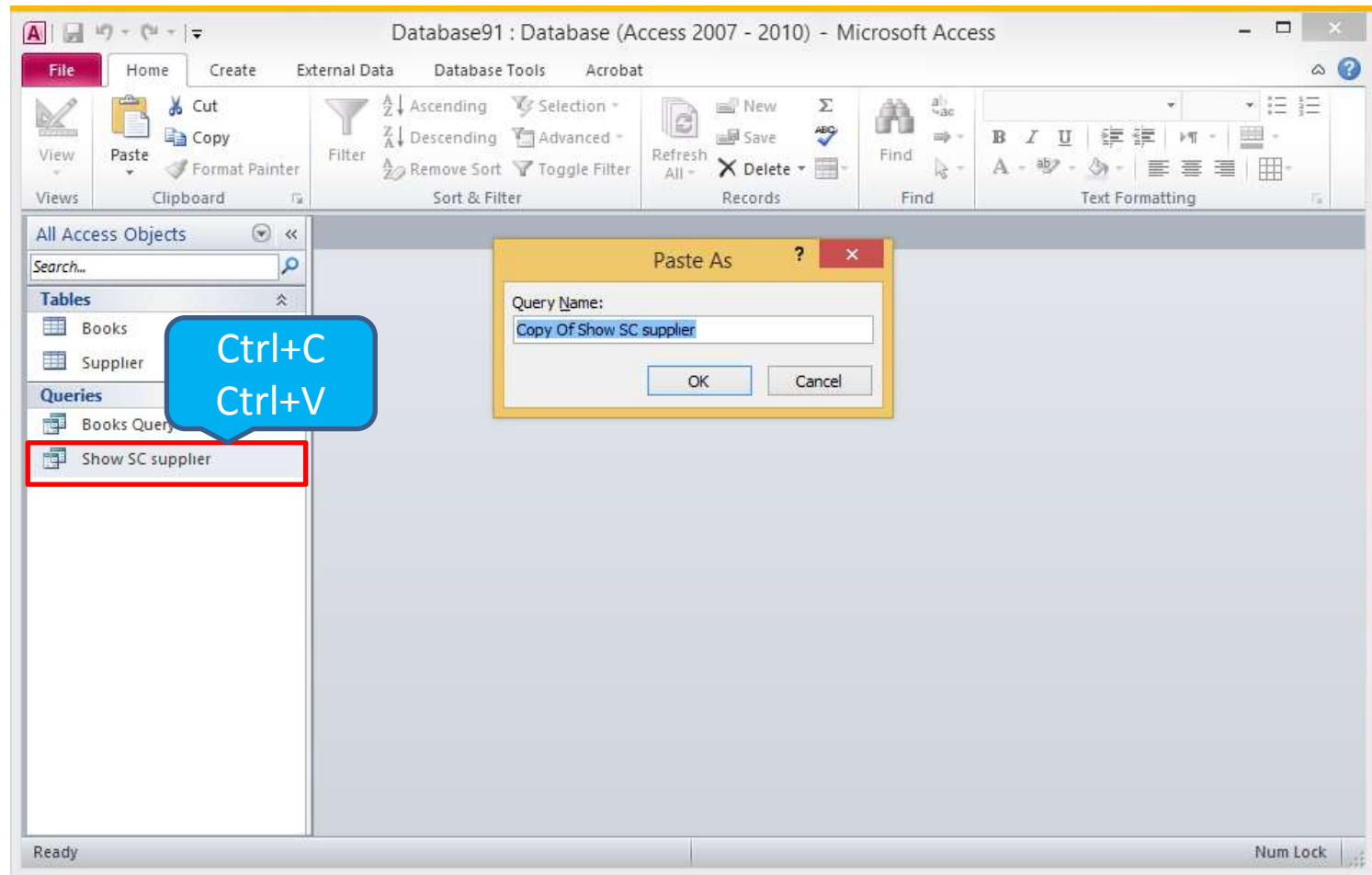


# Criteria

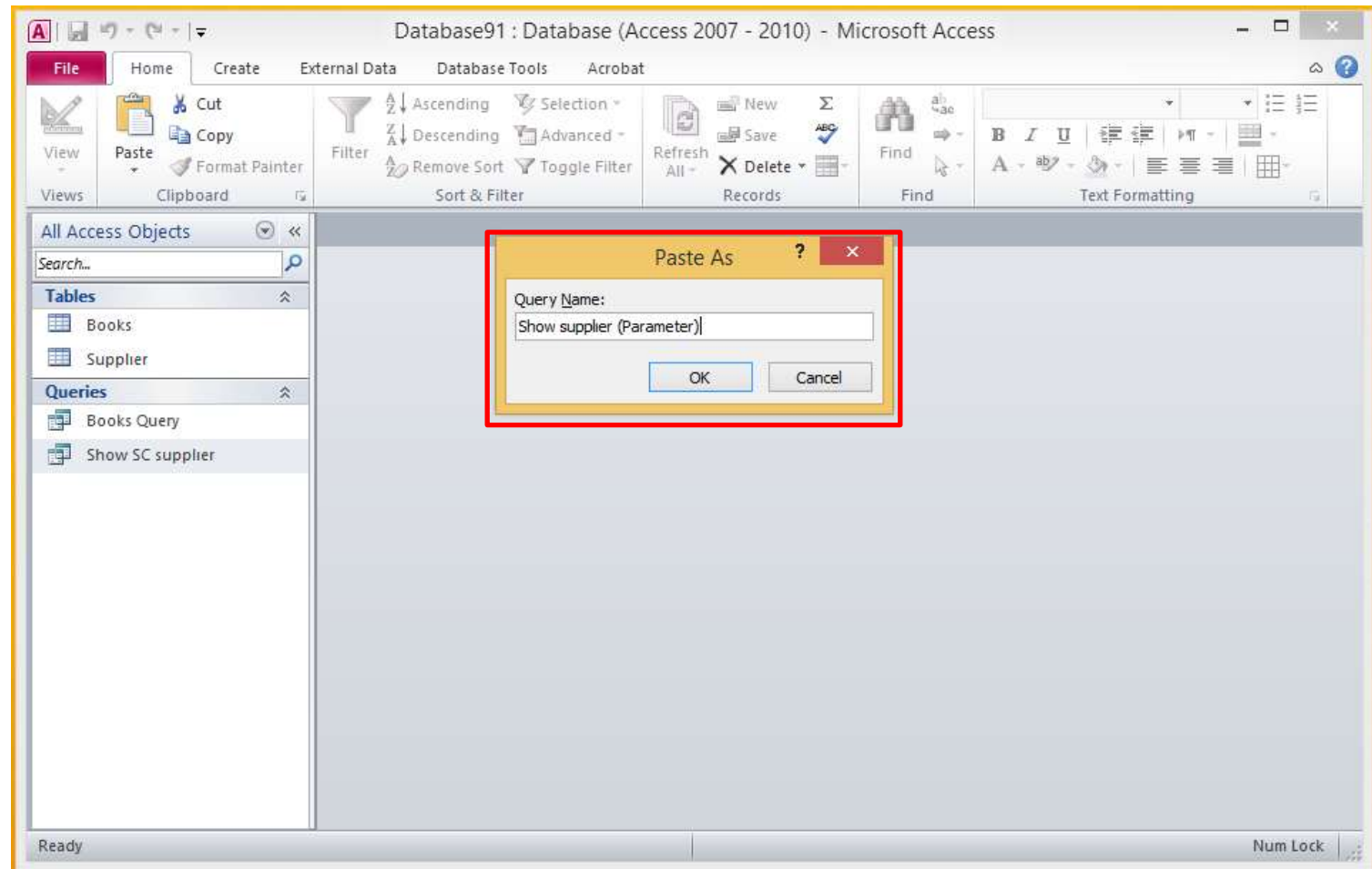
The screenshot displays the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The 'Query Tools' ribbon is active, showing the 'Design' tab. A 'Save As' dialog box is open, with the 'Query Name' field containing 'Show SC supplier'. A blue callout bubble with the text 'Ctrl+S' is positioned over the dialog box. The background shows the 'Query Design' view with a table grid. The table grid has the following data:

Field:	Book Id	Book Title	OnHand	SellPrice	Supplier Code	
Table:	Books	Books	Books	Books	Books	
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Criteria:					"sc"	
or:						

# Criteria Parameter



# Criteria Parameter





# Criteria Parameter

The screenshot displays the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The 'Query Tools' ribbon is active, showing the 'Design' tab. The 'Run' button in the 'Results' group is highlighted with a red box. A dialog box titled 'Enter Parameter Value' is open, prompting the user to 'Enter Supplier Code' with the text 'BH' entered in the input field. The dialog box also has 'OK' and 'Cancel' buttons. In the background, the 'Show SC supplier' query is visible in Design View. The 'All Access Objects' pane on the left shows the 'Queries' section with 'Show SC supplier' and 'Show supplier (Parameter)'. The main workspace shows the query design grid with the following fields and criteria:

Field:	Book Id	Book Title	OnHand	SellPrice	Supplier Code
Table:	Books	Books	Books	Books	Books
Sort:					
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:					[Enter Supplier Code]
or:					

The status bar at the bottom indicates 'Form View' and 'Num Lock' is on.

# Criteria Parameter

The screenshot displays the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Home' ribbon is active, showing options for 'Filter', 'Sort & Filter', 'Records', and 'Text Formatting'. The 'All Access Objects' pane on the left shows 'Tables' (Books, Supplier) and 'Queries' (Books Query, Show SC supplier, Show supplier (Parameter)). The main window shows a data table titled 'Show SC supplier' with the following data:

Book Id	Book Title	OnHand	SellPrice	Supplier Code
DE09	Design of Expriment	8	13,00 €	BH
MA01	Managment Information System	3	33,00 €	BH
PR02	Probability Model	12	23,00 €	BH
*				

The 'Supplier Code' dropdown menu for the first row is highlighted with a red box, showing the value 'BH'. The status bar at the bottom indicates 'Record: 1 of 3' and 'No Filter'.

# Product Cost

The screenshot shows the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The 'Query Tools' ribbon is active, showing the 'Design' tab. The 'Query1' design grid is displayed, showing the 'Books' table with the following fields:

Field:	Book Id	Book Title	Cost			
Table:	Books	Books	Books			
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:						
or:						

A red box highlights the 'Cost' field in the design grid. A blue callout bubble next to it contains the text '-Sort' and '-Show', indicating that the 'Cost' field is to be sorted and hidden.



# Product Cost

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The main window displays a query named 'Query1' with the following data:

Book Id	Book Title	Cost
AC23	Accounting	27,00 €
CA06	Calculus	14,00 €
DE09	Design of Exprimtent	7,00 €
EC34	Economics	4,50 €
FI05	Financial Market	6,50 €
MA01	Managment Information System	15,50 €
OR14	Operation Research	4,00 €
PR02	Probability Model	12,00 €

The interface includes a ribbon with tabs for File, Home, Create, External Data, Database Tools, and Acrobat. The Home tab is active, showing options for Views, Clipboard, Sort & Filter, Records, and Find. The left sidebar shows 'All Access Objects' with a search bar and lists for Tables (Books, Supplier) and Queries (Books Query, Show SC supplier, Show supplier (Parameter)). The status bar at the bottom indicates 'Record: 1 of 8' and 'No Filter'.



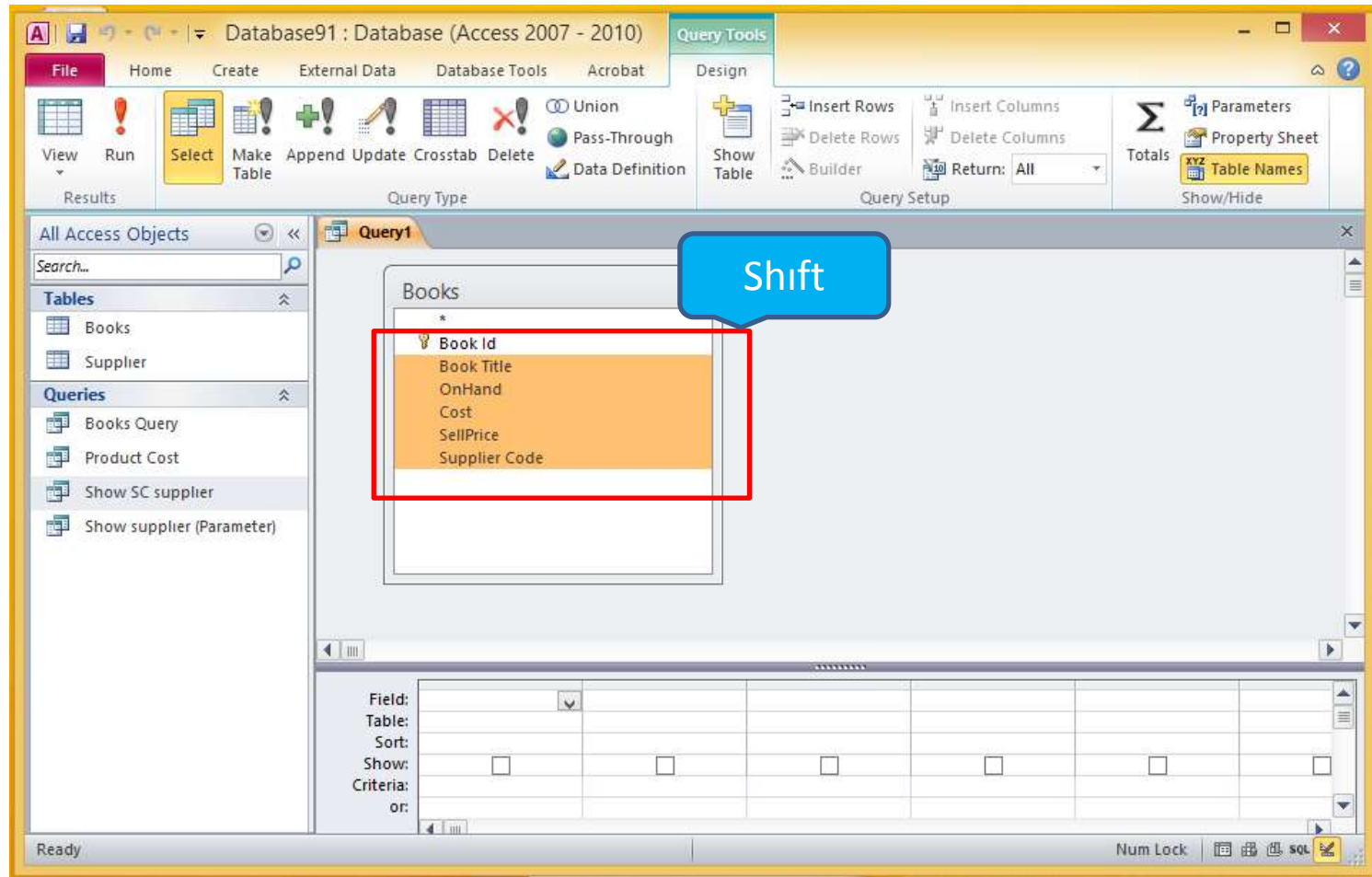
# Product Cost

The screenshot displays the Microsoft Access interface for a database named 'Database91: Database (Access 2007 - 2010)'. The 'Query1' view is active, showing a table with the following data:

Book Id	Price
AC23	
CA06	
DE09	
EC34	
FI05	
MA01	15,50 €
OR14	4,00 €
PR02	12,00 €
*	

A 'Save As' dialog box is open, prompting for a 'Query Name'. The name 'Product Cost' is entered in the text field. The dialog box has 'OK' and 'Cancel' buttons. A blue callout bubble with the text 'Ctrl+S' is positioned above the dialog box. The 'All Access Objects' pane on the left shows the 'Queries' section expanded, with 'Show supplier (Parameter)' selected. The status bar at the bottom indicates 'Record: 1 of 8' and 'No Filter'.

# Contain



# Contain

The screenshot displays the Microsoft Access interface in Design view for a query named 'Query1'. The design grid is as follows:

Field:	Book Id	Book Title	OnHand	Cost	SellPrice	Supplier Code
Table:	Books	Books	Books	Books	Books	Books
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		*ment*				
or:						

The 'Criteria' cell for 'Book Title' containing '\*ment\*' is highlighted with a red rectangle. The 'All Access Objects' pane on the left shows 'Queries' with 'Books Query' selected.

# Contain

The screenshot displays the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Home' ribbon is active, showing options for 'Views', 'Clipboard', 'Sort & Filter', 'Records', 'Find', and 'Text Formatting'. The 'All Access Objects' pane on the left shows 'Tables' (Books, Supplier) and 'Queries' (Books Query, Product Cost, Show SC supplier, Show supplier (Parameter)). The main window shows a query named 'Query1' with the following data:

Book Id	Book Title	OnHand	Cost	SellPrice	Supplier Coi
DE09	Design of Exprimtent	8	7,00 €	13,00 €	BH
MA01	Management Information System	3	15,50 €	33,00 €	BH

The status bar at the bottom indicates 'Record: 1 of 2', 'No Filter', and 'Search'. The system tray shows 'Ready' and 'Num Lock'.

# Contain

The screenshot displays the Microsoft Access interface for a database named 'Database91'. The ribbon is set to 'Database Tools', and the 'Records' group is active. A blue callout bubble with the text 'Ctrl+S' is positioned over the ribbon. A 'Save As' dialog box is open, showing the 'Query Name' field with the text 'Contains Ment'. The background shows a data table with the following data:

Book Id	Cost	SellPrice	Supplier Co
DE09	7,00 €	13,00 €	BH
MA01	15,50 €	33,00 €	BH

The status bar at the bottom indicates 'Record: 1 of 2' and 'No Filter'.

# Less Than ...

The screenshot shows the Microsoft Access interface with the 'Query Tools' ribbon active. The 'Design' tab is selected, showing options for 'Insert Rows', 'Delete Rows', 'Insert Columns', and 'Delete Columns'. The 'Query Setup' group includes 'Builder' and 'Return: All'. The 'Show/Hide' group includes 'Parameters', 'Property Sheet', and 'Table Names'. The 'All Access Objects' pane on the left shows 'Tables' (Books, Supplier) and 'Queries' (Books Query, Contains Ment, Product Cost, Show SC supplier, Show supplier (Parameter)). The main area displays the 'Books' table with fields: Book Id (primary key), Book Title, OnHand, Cost, SellPrice, and Supplier Code. Below this, the 'Field List' table is shown with a red box highlighting the first four columns: Book Id, Book Title, Supplier Code, and Cost. The 'Field List' table has columns for Field, Table, Sort, Show, and Criteria. The 'Show' row has checkboxes for each field, all of which are checked. The 'Criteria' row is empty.

Field:	Book Id	Book Title	Supplier Code	Cost
Table:	Books	Books	Books	Books
Sort:				
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:				
or:				



# Less Than ...

The screenshot shows the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The 'Query Tools' ribbon is active, showing the 'Design' tab. The 'All Access Objects' pane on the left shows a list of tables and queries. The main area displays the 'Books' table with fields: Book Id, Book Title, OnHand, Cost, SellPrice, and Supplier Code. The 'Criteria' row in the design grid is highlighted with a red box, showing a filter on the 'Cost' field: '< 10'. The status bar at the bottom indicates 'Ready' and 'Num Lock'.

Field:	Book Id	Book Title	Supplier Code	Cost
Table:	Books	Books	Books	Books
Sort:				
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:				< 10
or:				

# Less Than

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Database Tools' ribbon is active, showing options for 'Filter', 'Sort & Filter', 'Records', and 'Find'. The 'All Access Objects' pane on the left shows a tree view with 'Tables' (Books, Supplier) and 'Queries' (Books Query, Contains Ment, Product Cost, Show SC supplier, Show supplier (Parameter)). The main window displays 'Query1' with the following data:

Book Id	Book Title	Supplier Cor	Cost
DE09	Design of Exprimt	BH	7,00 €
EC34	Economics	AP	4,50 €
FI05	Financial Market	AP	6,50 €
OR14	Operation Research	SC	4,00 €

A red rectangular box highlights the 'Cost' column in the table. The status bar at the bottom indicates 'Record: 1 of 4' and 'No Filter'.



# Less Than

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Database Tools' ribbon is active, showing options like 'Filter', 'Sort & Filter', 'Records', and 'Text Formatting'. A blue callout bubble with the text 'Ctrl+S' is positioned over the 'Save' icon in the 'Records' group.

The 'All Access Objects' pane on the left shows a tree view with 'Tables' (Books, Supplier) and 'Queries' (Books Query, Contains Ment, Product Cost, Show SC supplier, Show supplier (Parameter)). The main window displays a query named 'Query1' with the following data:

Book Id	Cost
DE09	7,00 €
EC34	4,50 €
FI05	6,50 €
OR14	4,00 €

A 'Save As' dialog box is open, showing the 'Query Name' field with the text 'Cost Lees Than 10 Dollar'. The dialog has 'OK' and 'Cancel' buttons.

At the bottom of the window, the status bar shows 'Record: 1 of 4', 'No Filter', and a search box. The bottom right corner includes 'Num Lock' and icons for 'Table', 'Grid', 'SQL', and 'View'.

# Greater Than ...

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The 'Query Tools' ribbon is active, showing the 'Design' view. The 'All Access Objects' pane on the left lists 'Tables' (Books, Supplier) and 'Queries' (Books Query, Contains Ment, Cost Lees Than 10 Dollar, Product Cost, Show SC supplier, Show supplier (Parameter)). The main workspace displays the 'Books' table with fields: Book Id, Book Title, OnHand, Cost, SellPrice, and Supplier Code. Below the workspace is the 'Query Design View' grid. The grid has columns for 'Field', 'Table', 'Sort', 'Show', and 'Criteria'. The 'SellPrice' field is highlighted with a red box, and its 'Criteria' cell contains the expression '>=20'. The status bar at the bottom indicates 'Ready' and 'Num Lock'.

Field	Table	Sort	Show	Criteria
Book Id	Books		<input checked="" type="checkbox"/>	
Book Title	Books		<input checked="" type="checkbox"/>	
SellPrice	Books		<input checked="" type="checkbox"/>	>=20
			<input type="checkbox"/>	
			<input type="checkbox"/>	

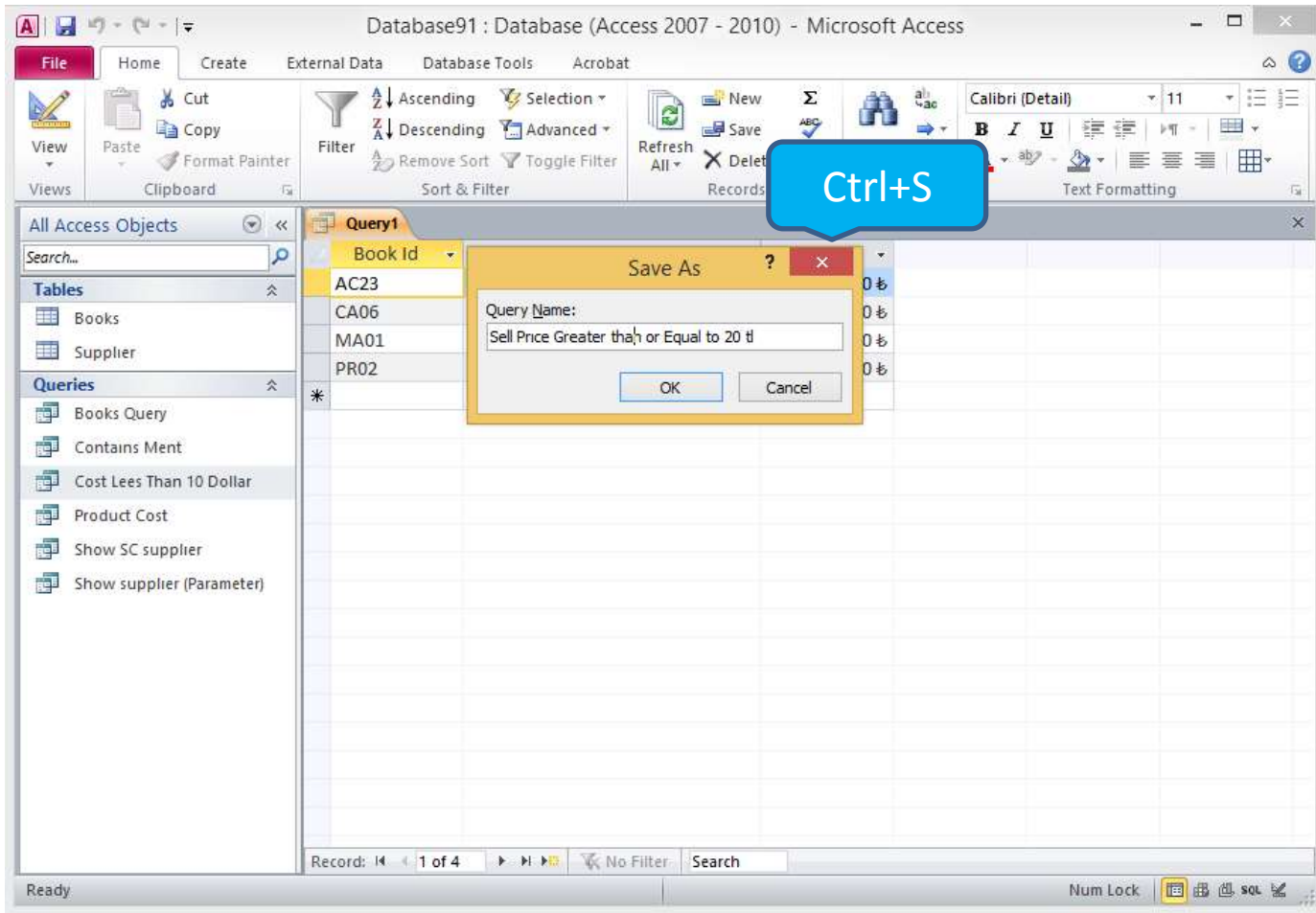
# Greater Than ...

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Home' ribbon is active, showing options for 'Views', 'Clipboard', 'Sort & Filter', 'Records', and 'Text Formatting'. The 'All Access Objects' pane on the left shows 'Tables' (Books, Supplier) and 'Queries' (Books Query, Contains Ment, Cost Lees Than 10 Dollar, Product Cost, Show SC supplier, Show supplier (Parameter)). The main window displays a query named 'Query1' with the following data:

Book Id	Book Title	SellPrice
AC23	Accounting	50,00 ₺
CA06	Calculus	27,00 ₺
MA01	Managment Information System	33,00 ₺
PR02	Probability Model	23,00 ₺

A red rectangular box highlights the 'SellPrice' column and its values. The status bar at the bottom indicates 'Record: 1 of 4' and 'No Filter'.

# Greater Than ...



# AND

The screenshot shows the Microsoft Access Query Design view for a query named 'Query1'. The design grid is as follows:

Field:	Book Id	Book Title	OnHand	Cost	SellPrice	Supplier Code
Table:	Books	Books	Books	Books	Books	Books
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:			>= 10		< 15	
or:						

# AND

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The ribbon tabs are 'Views', 'Clipboard', 'Sort & Filter', 'Records', 'Find', and 'Text Formatting'. The 'All Access Objects' pane on the left shows 'Tables' (Books, Supplier) and 'Queries' (Books Query, Contains Ment, Cost Lees Than 10 Dollar, Product Cost, Sell Price Greater than or E..., Show SC supplier, Show supplier (Parameter)). The main window displays a query named 'Query1' in Datasheet view. The table has columns: Book Id, Book Title, OnHand, Cost, SellPrice, and Supplier Co. A red box highlights the first row of data: Book Id 'OR14', Book Title 'Operation Research', OnHand '10', Cost '4,00 €', SellPrice '8,00 €', and Supplier Co 'SC'. The status bar at the bottom indicates 'Record: 1 of 1' and 'No Filter'.

Book Id	Book Title	OnHand	Cost	SellPrice	Supplier Co
OR14	Operation Research	10	4,00 €	8,00 €	SC

# AND

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Database Tools' ribbon is active, showing options like 'Filter', 'Sort & Filter', 'Records', and 'Text Formatting'. A blue callout bubble with the text 'Ctrl+S' is positioned over the 'Save' icon in the 'Records' group.

A 'Save As' dialog box is open, displaying the query name 'SP <15 AND OH >=10'. The dialog box has 'OK' and 'Cancel' buttons.

The main window displays a query grid with the following data:

Book Id	Book Title	OnHand	Cost	SellPrice	Supplier Co
OR14	Opera	*	4,00 €	8,00 €	SC

The status bar at the bottom indicates 'Record: 1 of 1', 'No Filter', and 'Search'.



# OR

The screenshot shows the Microsoft Access interface in Design view for a query named 'Query1'. The ribbon includes 'Query Tools' with 'Design' selected. The 'All Access Objects' pane on the left shows a list of tables and queries. The main design grid contains the following fields:

Field:	Book Id	Book Title	OnHand	Cost	SellPrice	Supplier Code
Table:	Books	Books	Books	Books	Books	Books
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:						"SC"
or:						"BH"

The 'Criteria' row for 'Supplier Code' contains the value '"SC"', and the 'or' row contains the value '"BH"'. Both of these cells are highlighted with a red box. The status bar at the bottom indicates 'Ready' and 'Num Lock' is on.



# OR

The screenshot shows the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Database Tools' ribbon is active, showing options like Filter, Sort & Filter, Refresh All, Delete, and Find. The 'Home' ribbon shows options like View, Paste, Format Painter, and Text Formatting. The 'All Access Objects' pane on the left shows a search bar and lists 'Tables' (Books, Supplier) and 'Queries' (Books Query, Contains Ment, Cost Lees Than 10 Dollar, Product Cost, Sell Price Greater than or E..., Show SC supplier, Show supplier (Parameter), SP < 15 AND OH > =10). The main window displays a query named 'Query1' with the following data:

Book Id	Book Title	OnHand	Cost	SellPrice	Supplier Co
AC23	Accounting	3	27,00 €	50,00 €	SC
DE09	Design of Expriment	8	7,00 €	13,00 €	BH
MA01	Management Information System	3	15,50 €	33,00 €	BH
OR14	Operation Research	10	4,00 €	8,00 €	SC
PR02	Probability Model	12	12,00 €	23,00 €	BH
*					

The 'Supplier Co' column is highlighted with a red box. The status bar at the bottom indicates 'Record: 14', '1 of 5', 'No Filter', and 'Search'. The system tray shows 'Ready' and 'Num Lock'.

# OR

The screenshot shows the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Database Tools' ribbon is active, showing options like 'Filter', 'Sort & Filter', 'Records', and 'Text Formatting'. A blue callout bubble with the text 'Ctrl+S' is positioned over the 'Records' group. In the center, a 'Save As' dialog box is open, displaying the query name 'Supplier SC OR BH'. The background shows a table with columns: Book Id, Book Title, OnHand, Cost, SellPrice, and Supplier Co. The table contains five rows of data.

Book Id	Book Title	OnHand	Cost	SellPrice	Supplier Co
AC23	Account		27,00 €	50,00 €	SC
DE09	Design		7,00 €	13,00 €	BH
MA01	Manag		15,50 €	33,00 €	BH
OR14	Opera		4,00 €	8,00 €	SC
PR02	Probab		12,00 €	23,00 €	BH

# Calculation

The screenshot shows the Microsoft Access interface in Design view for a query named 'Query1'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Query Tools' ribbon is active, showing 'Design' and 'Query Setup' tabs. The 'Design' tab includes options like 'Insert Rows', 'Delete Rows', 'Insert Columns', 'Delete Columns', 'Builder', and 'Return: All'. The 'Query Setup' tab includes 'Totals', 'Parameters', and 'Table Names'. The 'Show/Hide' tab includes 'Property Sheet'. The 'All Access Objects' pane on the left shows 'Tables' (Books, Supplier) and 'Queries' (Books Query, Contains Ment, Cost Lees Than 10 Dollar, Product Cost, Sell Price Greater than or E..., Show SC supplier, Show supplier (Parameter), SP < 15 AND OH > = 10, Supplier SC OR BH). The 'Books' table is selected, and its fields are listed: Book Id (primary key), Book Title, OnHand, Cost, SellPrice, and Supplier Code. The query design grid below shows the following fields selected from the 'Books' table:

Field:	Book Id	Book Title				
Table:	Books	Books				
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:						
or:						

# Calculation

The screenshot shows the Microsoft Access interface with the 'Query Tools' ribbon active. A 'Zoom' dialog box is open, centered over the query design grid. A blue callout bubble with the text 'Right Click Zoom' points to the dialog box. The query design grid below shows the following data:

Field:	Book Id	Book Title			
Table:	Books	Books			
Sort:					
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:					
or:					

# Calculation

The screenshot displays the Microsoft Access interface. A Zoom dialog box is open, showing the formula: `[Inventory Value: [Cost]*[OnHand]]`. The dialog box has "OK", "Cancel", and "Font..." buttons. In the background, the Access window shows the "Query Tools" ribbon, the "All Access Objects" pane, and a table grid with columns for "Book Id" and "Book Title".

Field:	Book Id	Book Title			
Table:	Books	Books			
Sort:					
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:					
or:					

# Calculation

The screenshot shows the Microsoft Access Query Design view for a query named 'Query1'. The design grid is as follows:

Field:	Book Id	Book Title	Inventory Value: [Cost]*[OnHand]		
Table:	Books	Books			
Sort:					
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:					
or:					

The calculated field 'Inventory Value: [Cost]\*[OnHand]' is highlighted with a red box. The 'Books' table is shown in the design grid with fields: Book Id, Book Title, OnHand, Cost, SellPrice, and Supplier Code. The 'All Access Objects' pane on the left shows a list of tables and queries.

# Calculation

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Database Tools' ribbon is active, showing options for 'Filter', 'Sort & Filter', 'Records', and 'Find'. The 'Text Formatting' group is also visible. The 'All Access Objects' pane on the left shows 'Tables' (Books, Supplier) and 'Queries' (Books Query, Contains Ment, Cost Lees Than 10 Dollar, Product Cost, Sell Price Greater than or E..., Show SC supplier, Show supplier (Parameter), SP <15 AND OH >=10, Supplier SC OR BH). The main window displays a query named 'Query1' with the following data:

Book Id	Book Title	Inventory V
AC23	Accounting	81,00 €
CA06	Calculus	70,00 €
DE09	Design of Expriment	56,00 €
EC34	Economics	31,50 €
FI05	Financial Market	26,00 €
MA01	Managment Information System	46,50 €
OR14	Operation Research	40,00 €
PR02	Probability Model	144,00 €
*		

The 'Inventory V' column is highlighted with a red box. The status bar at the bottom indicates 'Record: 14', '1 of 8', 'No Filter', and 'Search'. The system tray shows 'Num Lock' and 'SQL' icons.



# Calculation

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Database Tools' ribbon is active, showing options like 'Filter', 'Sort & Filter', 'Records', and 'Text Formatting'. A 'Save As' dialog box is open, prompting for a 'Query Name' with 'Inventory Value' entered. A blue callout bubble with the text 'Ctrl+S' is overlaid on the dialog box. The background shows a table with columns 'Book Id', 'Book Title', and 'Inventory Value'.

Book Id	Book Title	Inventory Value
AC23	Accounting	
CA06	Calculus	
DE09	Design	
EC34	Economics	
FI05	Finance	
MA01	Management	
OR14	Operation Research	40,00 ₺
PR02	Probability Model	144,00 ₺
*		

# Calculation

The screenshot shows the Microsoft Access interface in Design view for a query named 'Query1'. The ribbon includes 'Query Tools' with sub-tabs for 'Design' and 'Query Setup'. The 'Design' tab is active, showing options like 'Insert Rows', 'Delete Rows', 'Insert Columns', and 'Delete Columns'. The 'Query Setup' section shows 'Return: All'. The 'Table Names' property sheet is open, showing the 'Books' table. The 'All Access Objects' pane on the left shows a list of tables and queries. The 'Books' table is selected, and its fields are listed in a box: Book Id, Book Title, OnHand, Cost, SellPrice, and Supplier Code. Below this, the query design grid is visible, with the first two columns highlighted by a red box. The first column is labeled 'Book Id' and the second is 'Book Title', both with 'Books' as the table source. The 'Show' row has checkboxes checked for both fields. The 'Criteria' and 'or' rows are empty.

Field:	Book Id	Book Title				
Table:	Books	Books				
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:						
or:						

# Calculation

The screenshot shows the Microsoft Access interface with the 'Query Tools' ribbon active. A 'Zoom' dialog box is open over the 'Gross Profit' field in the design grid. The dialog displays the formula:  $Gross\ Profit:[SellPrice]-[Cost]$ . The design grid below shows the following data:

Field:	Book Id	Book Title				
Table:	Books	Books				
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:						
or:						

# Calculation

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Database Tools' ribbon is active, showing options for 'Filter', 'Sort & Filter', 'Records', and 'Find'. The 'All Access Objects' pane on the left shows 'Tables' (Books, Supplier) and 'Queries' (Books Query, Contains Ment, Cost Lees Than 10 Dollar, Inventory Value, Product Cost, Sell Price Greater than or E..., Show SC supplier, Show supplier (Parameter), SP < 15 AND OH >= 10, Supplier SC OR BH). The main window displays a query named 'Query1' with the following data:

Book Id	Book Title	Gross Profit
AC23	Accounting	23,00 €
CA06	Calculus	13,00 €
DE09	Design of Expriment	6,00 €
EC34	Economics	4,50 €
FI05	Financial Market	5,50 €
MA01	Managment Information System	17,50 €
OR14	Operation Research	4,00 €
PR02	Probability Model	11,00 €
*		

The 'Gross Profit' column is highlighted with a red box. The status bar at the bottom indicates 'Record: 14 of 1 of 8' and 'No Filter: Search'. The system tray shows 'Ready' and 'Num Lock'.

# Calculation

The screenshot shows the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The ribbon is set to 'Database Tools' and the 'Records' group is active. A blue callout bubble with the text 'Ctrl+S' is positioned over the ribbon. A 'Save As' dialog box is open, prompting for a 'Query Name' with 'Gross Profit' entered. The background shows a table with columns 'Book Id', 'Book Title', and 'Gross Profit'. The status bar at the bottom indicates 'Record: 14 of 1 of 8' and 'No Filter'.

Book Id	Book Title	Gross Profit
AC23	Accounting	
CA06	Calculus	
DE09	Design	
EC34	Economics	
FI05	Finance	
MA01	Management	
OR14	Operation Research	4,00 €
PR02	Probability Model	11,00 €
*		

# Average

The screenshot shows the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010) - Mi...'. The 'Query Tools' ribbon is active, showing the 'Design' view. The 'Query1' design grid is open, and a red box highlights the 'SellPrice' field in the 'Field' column. The 'Table' column for 'SellPrice' is 'Books', and the 'Total' column is 'Group By'. The 'Sort' column has a dropdown arrow, and the 'Show' column has a checked checkbox. The 'Criteria' and 'or' columns are empty.

Field	Table	Total	Sort	Show	Criteria	or
SellPrice	Books	Group By		<input checked="" type="checkbox"/>		
				<input type="checkbox"/>		
				<input type="checkbox"/>		
				<input type="checkbox"/>		
				<input type="checkbox"/>		

# Average

The screenshot shows the Microsoft Access interface with a query in Design view. The 'Query Tools' ribbon is active, and the 'Totals' button (represented by a sigma symbol  $\Sigma$ ) is highlighted with a red box. In the design grid, the 'Totals' row for the 'SellPrice' field is also highlighted with a red box, showing the dropdown menu set to 'Avg'.

**Query Design Grid:**

Field:	Table:	Total:	Sort:	Show:	Criteria:	or:
SellPrice	Books	Avg		<input checked="" type="checkbox"/>		
				<input type="checkbox"/>		
				<input type="checkbox"/>		
				<input type="checkbox"/>		
				<input type="checkbox"/>		

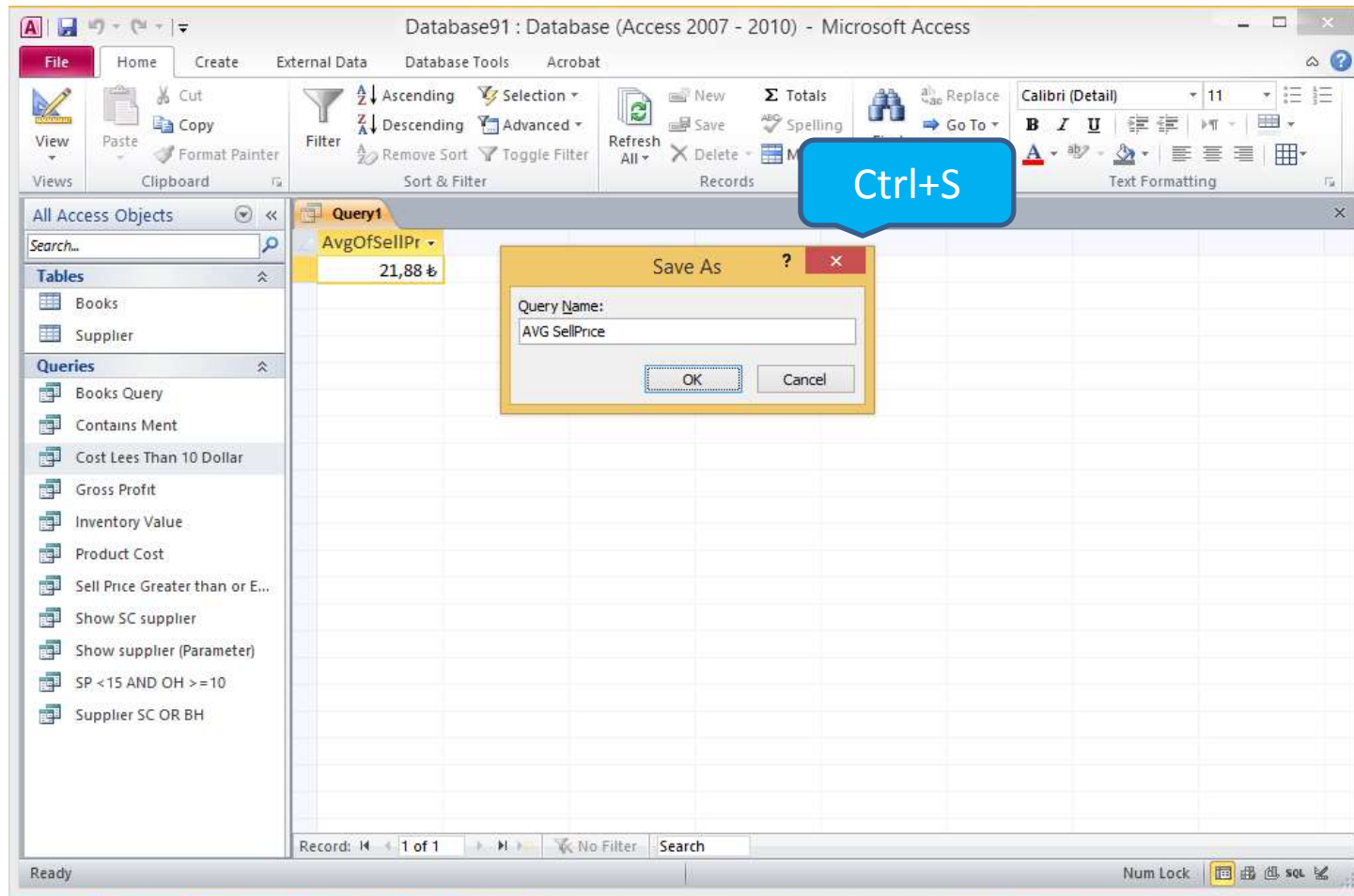


# Average

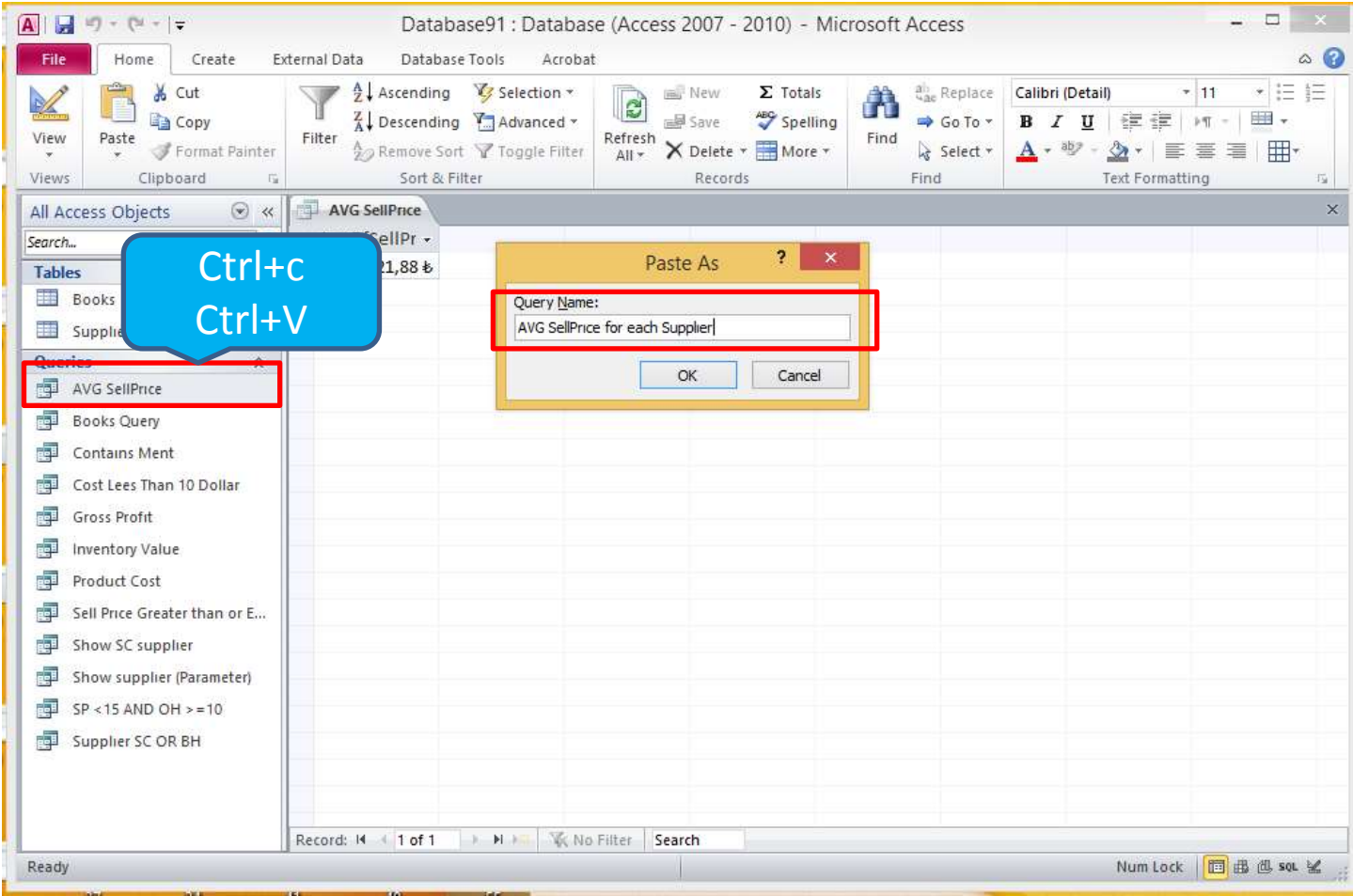
The screenshot displays the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Database Tools' ribbon is active, showing options for 'Filter', 'Sort & Filter', 'Records', and 'Find'. The 'All Access Objects' pane on the left lists 'Tables' (Books, Supplier) and 'Queries' (Books Query, Contains Ment, Cost Lees Than 10 Dollar, Gross Profit, Inventory Value, Product Cost, Sell Price Greater than or E..., Show SC supplier, Show supplier (Parameter), SP < 15 AND OH >= 10, Supplier SC OR BH). The main window shows a query named 'Query1' with a single record for 'AvgOfSellPr' with a value of 21,88. The status bar at the bottom indicates 'Record: 1 of 1' and 'No Filter'.

Query1
AvgOfSellPr
21,88

# Average



# Group Average



# Group Average

The screenshot shows the Microsoft Access interface in Design View for a query named "AVG SellPrice for each Supplier". The ribbon includes "Query Tools" with tabs for "Design" and "Query Setup". The "Design" tab is active, showing options like "Insert Rows", "Delete Rows", "Insert Columns", and "Delete Columns". The "Query Setup" section shows "Return: All".

The "All Access Objects" pane on the left lists "Tables" (Books, Supplier) and "Queries" (AVG SellPrice, AVG SellPrice for each Sup..., Books Query, Contains Ment, Cost Lees Than 10 Dollar, Gross Profit, Inventory Value, Product Cost, Sell Price Greater than or E..., Show SC supplier, Show supplier (Parameter), SP < 15 AND OH > = 10, Supplier SC OR BH).

The "Books" table is selected in the design grid. The design grid shows the following configuration:

Field:	SellPrice	Supplier Code				
Table:	Books	Books				
Total:	Avg	Group By				
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:						
or:						

The "Supplier Code" field is highlighted with a red box, and the "Group By" option is selected in the Total row.

# Group Average

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Queries' section of the ribbon is active, showing options like 'Query Wizard', 'Query Design', 'Form Wizard', 'Form Design', and 'Blank Form'. The 'All Access Objects' pane on the left lists various objects, including 'AVG SellPrice for each Supplier'. The main window displays a data table with the following content:

AvgOfSellPr	Supplier Co
16,00 €	AP
23,00 €	BH
37,28 €	SC

The table is highlighted with a red border. The status bar at the bottom indicates 'Record: 1 of 3' and 'No Filter'.

# Average by Parameter

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Database Tools' ribbon is active, showing options for 'Filter', 'Sort & Filter', 'Records', and 'Find'. The 'All Access Objects' pane on the left shows a list of queries, with 'AVG SellPrice for each Sup...' selected and highlighted with a red box. A blue callout bubble with the text 'Ctrl+c' and 'Ctrl+v' is positioned over the selected query. A 'Paste As' dialog box is open in the center, with a red box around the 'Query Name' field containing the text 'AVG SellPrice for each Supplier (Parameter)'. The dialog box has 'OK' and 'Cancel' buttons. The main window displays a grid with columns 'AvgOfSellPr' and 'Supplier Co...' and rows of data. The status bar at the bottom shows 'Record: 1 of 3' and 'No Filter'.

# Average by Parameter

The screenshot displays the Microsoft Access interface for a query named "AVG SellPrice for each Supplier (Parameter)". The query is in Design View. The design grid is as follows:

Field:	SellPrice	Supplier Code			
Table:	Books	Books			
Total:	Avg	Group By			
Sort:					
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:		[Enter Supplier Code]			
or:					

The criteria field for "Supplier Code" is highlighted with a red box. The left-hand pane shows the "All Access Objects" list, including "Tables" (Books, Supplier) and "Queries" (AVG SellPrice, AVG SellPrice for each Supplier, AVG SellPrice for each Supplier (Parameter), Books Query, Contains Ment, Cost Lees Than 10 Dollar, Gross Profit, Inventory Value, Product Cost, Sell Price Greater than or Equal to 20 tl, Show SC supplier, Show supplier (Parameter), SP < 15 AND OH >= 10, Supplier SC OR BH).



# Average by Parameter

The screenshot displays the Microsoft Access interface. The ribbon is set to 'Query Tools' > 'Design'. The 'Run' button in the 'Results' group is highlighted with a red box. A dialog box titled 'Enter Parameter Value' is open, prompting for a 'Supplier Code' with 'SC' entered. The dialog box is also highlighted with a red box. The query design grid shows the following fields and criteria:

Field:	SellPrice	Supplier Code			
Table:	Books	Books			
Total:	Avg	Group By			
Sort:					
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:		[Enter Supplier Code]			
or:					

# Average by Parameter

The screenshot displays the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The 'Database Tools' ribbon is active, showing options for 'Filter', 'Sort & Filter', 'Records', and 'Find'. The 'All Access Objects' pane on the left lists 'Tables' (Books, Supplier) and 'Queries' (AVG SellPrice, AVG SellPrice for each Supplier, AVG SellPrice for each Supplier (Parameter), Books Query, Contains Ment, Cost Lees Than 10 Dollar, Gross Profit, Inventory Value, Product Cost, Sell Price Greater than or Equal to 20 tl, Show SC supplier, Show supplier (Parameter), SP < 15 AND OH >= 10, Supplier SC OR BH). The main window shows the 'AVG SellPrice for each Supplier (Parameter)' query in Datasheet View. The data is as follows:

AvgOfSellPr	Supplier Co
29,00	SC

The status bar at the bottom indicates 'Record: 1 of 1', 'No Filter', and 'Search'. The 'Num Lock' indicator is also visible.

# Between

The screenshot shows the Microsoft Access interface in Design view for a query named 'Query1'. The 'Books' table is selected as the data source. The design grid shows the following configuration:

Field:	Book Id	Book Title	SellPrice		
Table:	Books	Books	Books		
Sort:					
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:			Between 15 And 25		
or:					

The 'Books' table fields listed are: Book Id, Book Title, OnHand, Cost, SellPrice, and Supplier Code. The 'Criteria' row for 'SellPrice' is set to 'Between 15 And 25'. The 'Show' row has checkboxes for 'Book Id', 'Book Title', and 'SellPrice' checked.

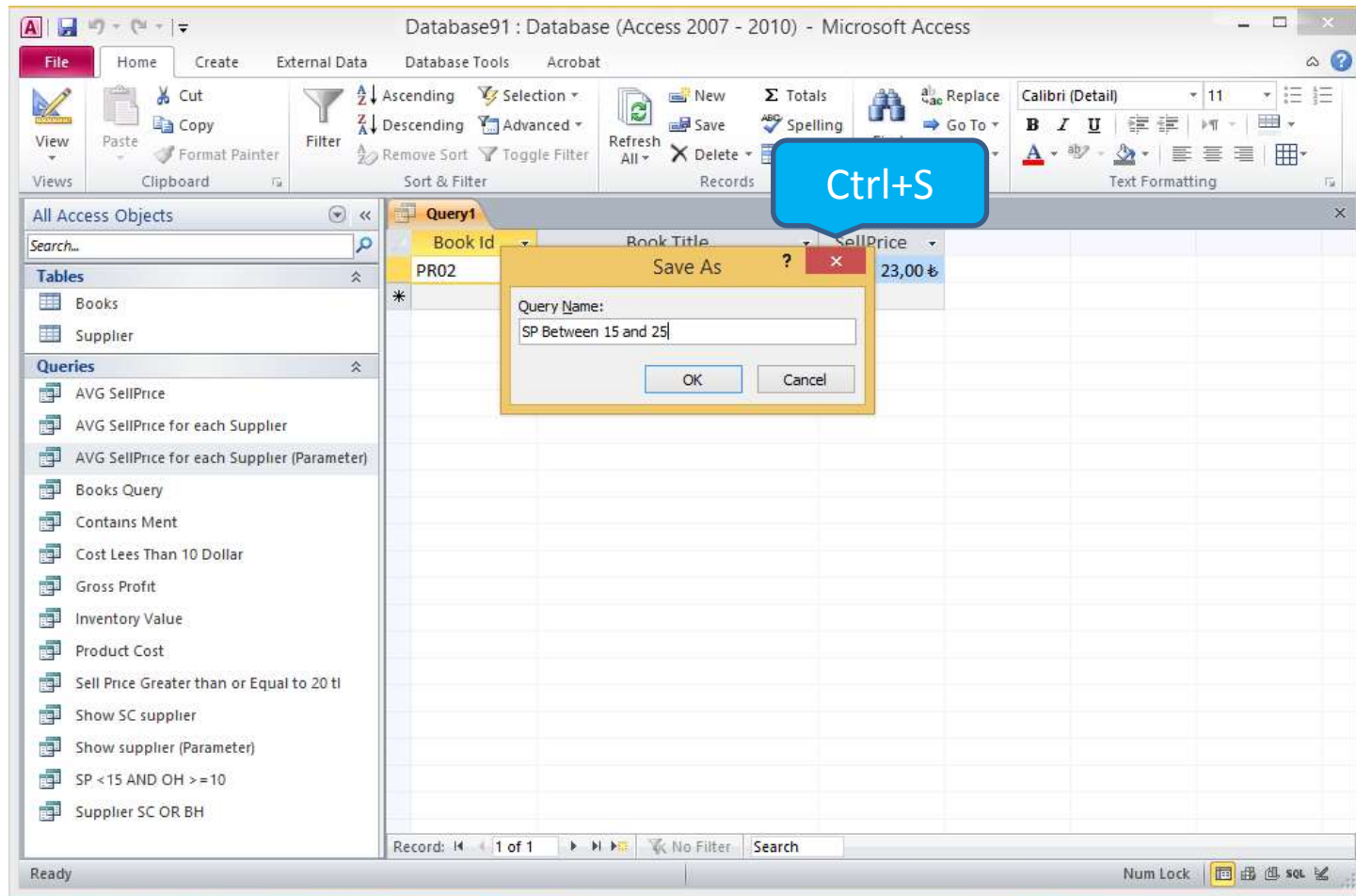
# Between

The screenshot shows the Microsoft Access interface for a database named 'Database91'. The ribbon includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', and 'Acrobat'. The ribbon tabs are 'Views', 'Clipboard', 'Sort & Filter', 'Records', 'Find', and 'Text Formatting'. The 'All Access Objects' pane on the left shows a search bar and lists 'Tables' (Books, Supplier) and 'Queries' (AVG SellPrice, AVG SellPrice for each Supplier, AVG SellPrice for each Supplier (Parameter), Books Query, Contains Ment, Cost Lees Than 10 Dollar, Gross Profit, Inventory Value, Product Cost, Sell Price Greater than or Equal to 20 ti, Show SC supplier, Show supplier (Parameter), SP < 15 AND OH >= 10, Supplier SC OR BH). The main window displays a query named 'Query1' with the following data:

Book Id	Book Title	SellPrice
PR02	Probability Model	23,00

The value '23,00' in the 'SellPrice' column is highlighted with a red box. The status bar at the bottom indicates 'Record: 1 of 1' and 'No Filter'.

# Between







# Relationship Query

The screenshot shows Microsoft Access in Design view for a query named 'Query1'. The relationship diagram shows a one-to-many relationship between the 'Supplier' table (primary key) and the 'Books' table (foreign key). The 'Books' table has a foreign key 'Supplier Code' that references the 'Supplier Code' primary key in the 'Supplier' table. The query grid below shows the fields selected for the query:

Field:	Supplier Code	Name	Telephone	Book Id	Book Title	Cost	OnHand
Table:	Supplier	Supplier	Supplier	Books	Books	Books	Books
Sort:							
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:							
or:							



# Relationship Query

The screenshot displays the Microsoft Access interface for a database named 'Database91'. The main window shows a table view of a query named 'Query1'. The table has the following columns: Supplier Code, Name, Telephone, Book Id, Book Title, Cost, and OnHand. The data is as follows:

Supplier Code	Name	Telephone	Book Id	Book Title	Cost	OnHand
AP	Antonio patino	6451712	CA06	Calculus	14,00 €	5
AP	Antonio patino	6451712	EC34	Economics	4,50 €	7
AP	Antonio patino	6451712	FI05	Financial Market	6,50 €	4
BH	Bert Huntington	6551222	DE09	Design of Exprimment	7,00 €	8
BH	Bert Huntington	6551222	MA01	Managment Information System	15,50 €	3
BH	Bert Huntington	6551222	PR02	Probability Model	12,00 €	12
SC	Sue Chin	6351542	AC23	Accounting	27,00 €	3
SC	Sue Chin	6351542	OR14	Operation Research	4,00 €	10
*						

The interface includes a ribbon with tabs for File, Home, Create, External Data, Database Tools, and Acrobat. The Home tab is active, showing options for View, Paste, Copy, Format Painter, Filter, Sort & Filter, Records, Find, and Text Formatting. The left-hand pane shows 'All Access Objects' with a search bar and lists 'Tables' (Books, Supplier) and 'Queries' (AVG SellPrice, AVG SellPrice for each Sup..., Books Query, Contains Ment, Cost Lees Than 10 Dollar, Gross Profit, Inventory Value, Product Cost, Sell Price Greater than or E..., Show SC supplier, Show supplier (Parameter), SP < 15 AND OH > = 10, SP Between 15 and 25, Supplier SC OR BH). The status bar at the bottom indicates 'Record: 14 of 1 of 8' and 'No Filter'.

# Relationship Query

The screenshot displays the Microsoft Access interface for a database named 'Database91'. The 'Query Tools' ribbon is active, showing the 'Design' view. The 'All Access Objects' pane on the left lists 'Tables' (Books, Supplier) and 'Queries' (AVG SellPrice, Books Query, etc.). The main workspace shows a relationship diagram with 'Books' and 'Supplier' tables connected by a 1-to-many relationship line. The 'Books' table has fields: Book Id (primary key), Book Title, OnHand, Cost, SellPrice, and Supplier Code. The 'Supplier' table has fields: Supplier Code (primary key), Name, and Telephone. Below the diagram is a query grid for 'Query1' with the following fields: Supplier Code, Name, Telephone, Book Id, Book Title, Cost, and OnHand. The 'OnHand' field is highlighted with a red box, and its criteria are set to '<5'. The status bar at the bottom indicates 'Ready' and 'Num Lock'.

Field:	Supplier Code	Name	Telephone	Book Id	Book Title	Cost	OnHand
Table:	Supplier	Supplier	Supplier	Books	Books	Books	Books
Sort:							
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:							<5
or:							

# Relationship Query

The screenshot displays the Microsoft Access interface for a database named 'Database91'. The main window shows a table view of a query named 'Query1'. The table has the following columns: Supplier Cor, Name, Telephone, Book Id, Book Title, Cost, and OnHand. The data is as follows:

Supplier Cor	Name	Telephone	Book Id	Book Title	Cost	OnHand
SC	Sue Chin	6351542	AC23	Accounting	27,00 €	3
AP	Antonio patino	6451712	FI05	Financial Market	6,50 €	4
BH	Bert Huntington	6551222	MA01	Managment Information System	15,50 €	3

A red rectangular box highlights the 'OnHand' column, which contains the values 3, 4, and 3 for the three records respectively. The status bar at the bottom indicates 'Record: 1 of 3' and 'No Filter'.

# Relationship Query

Database91 : Database (Access 2007 - 2010) - Microsoft Access

File Home Create External Data Database Tools Acrobat

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

All Access Objects

Tables: Books, Supplier

Queries: AVG SellPrice, AVG SellPrice for each Sup..., Books Query, Contains Ment, Cost Lees Than 10 Dollar, Gross Profit, Inventory Value, Product Cost, Sell Price Greater than or E..., Show SC supplier, Show supplier (Parameter), SP <15 AND OH >=10, SP Between 15 and 25, Supplier SC OR BH

Supplier Code	Name	Telephone	Book Id	Book Title	Cost	OnHand
SC	Sue Chin				27,00 €	3
AP	Antonio patino			arket	6,50 €	4
BH	Bert Huntingto			Information System	15,50 €	3
*						

Save As

Query Name:  
Reorder Phone List

OK Cancel

Ctrl+S

Record: 1 of 3

Ready Num Lock

# Update

The screenshot shows the Microsoft Access interface for a query named 'Query1'. The ribbon is set to 'Design' under the 'Query Tools' tab. The 'Query Type' section includes options like Union, Pass-Through, and Data Definition. The 'Query Setup' section includes Insert Rows, Delete Rows, Insert Columns, Delete Columns, Builder, and Return: All. The 'Show/Hide' section includes Totals, Parameters, Property Sheet, and Table Names. The 'All Access Objects' pane on the left shows a list of tables and queries. The 'Books' table is selected, and its fields are listed in the design grid. The 'Criteria' row for the 'Book Id' field is highlighted with a red box, showing the value '[Enter Book ID]'. The 'Show' row for 'Book Id' has a checked checkbox. The 'Table' row for 'Book Id' is 'Books'. The 'Field' row for 'Book Id' is 'Book Id'. The 'Table' row for 'Book Title' is 'Books'. The 'Field' row for 'Book Title' is 'Book Title'. The 'Table' row for 'SellPrice' is 'Books'. The 'Field' row for 'SellPrice' is 'SellPrice'. The 'Table' row for 'OnHand' is empty. The 'Field' row for 'OnHand' is empty. The 'Table' row for 'Cost' is empty. The 'Field' row for 'Cost' is empty. The 'Table' row for 'Supplier Code' is empty. The 'Field' row for 'Supplier Code' is empty.

Field:	Book Id	Book Title	SellPrice	OnHand	Cost	Supplier Code
Table:	Books	Books	Books			
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:	[Enter Book ID]					
or:						



# Update

The screenshot shows the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The 'Query Tools' ribbon is active, and the 'Update' button is highlighted with a red box. The 'All Access Objects' pane on the left shows a list of tables and queries. The main window displays a query named 'Query1' with the following fields:

Field:	Table:	Update To:	Criteria:
Book Id	Books	Books	[Enter Book ID]
Book Title	Books	Books	
SellPrice	Books	[sellprice]*1,1	

An 'Enter Parameter Value' dialog box is open, prompting for 'Enter Book ID'. The text 'AC23' is entered into the input field, which is also highlighted with a red box. The dialog box has 'OK' and 'Cancel' buttons.



# Update

The screenshot shows the Microsoft Access interface with the 'Query Tools' ribbon active. The 'Update' button in the 'Query Type' group is highlighted. A dialog box titled 'Microsoft Access' is displayed in the center, with a warning icon and the text: 'You are about to update 1 row(s). Once you click Yes, you can't use the Undo command to reverse the changes. Are you sure you want to update these records?'. The dialog box has 'Yes' and 'No' buttons.

The background shows the 'Query1' design grid with the following fields:

Field:	Book Id	Book Title	SellPrice				
Table:	Books	Books	Books				
Update To:			[sellprice]*1,1				
Criteria:	[Enter Book ID]						
or:							

The 'All Access Objects' pane on the left shows a list of tables and queries. The 'Tables' list includes 'Books' and 'Supplier'. The 'Queries' list includes 'AVG SellPrice', 'AVG SellPrice for each Sup...', 'Books Query', 'Contains Ment', 'Cost Lees Than 10 Dollar', 'Gross Profit', 'Inventory Value', 'Product Cost', 'Reorder Phone List', 'Sell Price Greater than or E...', 'Show SC supplier', 'Show supplier (Parameter)', 'SP < 15 AND OH > = 10', 'SP Between 15 and 25', and 'Supplier SC OR BH'.

# Update

The screenshot displays the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The 'Query Tools' ribbon is active, showing the 'Update' query type. A 'Save As' dialog box is open, with the 'Query Name' field containing 'Update Sellprice'. A blue callout bubble with the text 'Ctrl+S' is overlaid on the dialog. The design grid below the dialog shows the following structure:

Field:	Book Id	Book Title	SellPrice						
Table:	Books	Books	Books						
Update To:			[sellprice]*1,1						
Criteria:	[Enter Book ID]								
or:									

The status bar at the bottom indicates 'Ready' and 'Num Lock' is on.

# Update

The screenshot shows the Microsoft Access interface for a database named 'Database91 : Database (Access 2007 - 2010)'. The 'Table Tools' ribbon is active, and the 'Books' table is displayed in Datasheet View. The table has the following columns: Book Id, Book Title, OnHand, Cost, SellPrice, and Supplier Co. The first row, with Book Id 'AC23' and Book Title 'Accounting', is highlighted with a red border. The status bar at the bottom indicates 'Record: 1 of 8'.

Book Id	Book Title	OnHand	Cost	SellPrice	Supplier Co	Click to Add
AC23	Accounting	3	50,00 ₺	66,55 ₺	SC	
CA06	Calculus	5	14,00 ₺	27,00 ₺	AP	
DE09	Design of Exprimt	8	7,00 ₺	13,00 ₺	BH	
EC34	Economics	7	4,50 ₺	9,00 ₺	AP	
FI05	Financial Market	4	6,50 ₺	12,00 ₺	AP	
MA01	Managment Information System	3	15,50 ₺	33,00 ₺	BH	
OR14	Operation Research	10	4,00 ₺	8,00 ₺	SC	
PR02	Probability Model	12	12,00 ₺	23,00 ₺	BH	
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