

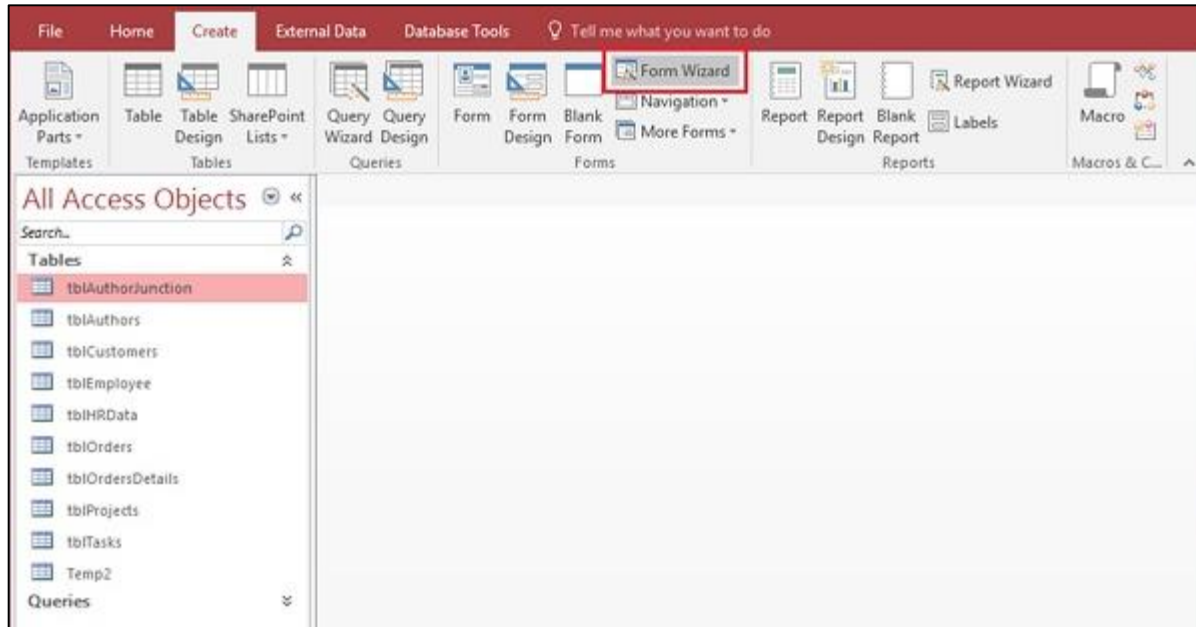
Database Management- 2

Form Usage

- Visually enriched forms are created to enter data in tables created in a database. It will provide easier data entry if the user enters the data in colorful and legible forms placed on the screen in boxes instead of entering the data in the "Datasheet" view.
- In addition, by adding fields from more than one table into a prepared form, it is not necessary to switch between tables continuously thanks to data entry.
- You can provide effective data entry thanks to objects such as pictures you can take from other programs, and fields you can get from tables. In addition, by adding instructions and warnings into forms, we can keep the database away from incorrect data entries.

Creating a simple form

To create a form, we can click on the "Form", "Form Design", "Blank Form", "Form Wizard", "Navigation" or "Other Forms" options in the "Forms" tab from the "Create" tab. We can use the "Form Layout Tools" or "Form Design Tools" ribbon. It is quite easy to create a form as we want by using the "Design", "Edit" and "Format" features in this ribbon. It is possible to design a form very quickly and easily, especially by using the "Form Wizard".



Sample Form

Customer ID: 100

Customer ID: ABC Company

Address: 123 Main St.

City: Anytown

State: TX

ZIP Code: 78700-1234

Contact First Name: William

Contact Last Name: Jones

Contact Phone: (123) 123-1234

Order ID	Order Date	Order Amou
110	1/11/2017	\$235.00
118	1/27/2017	\$131.00
*	0	\$0.00

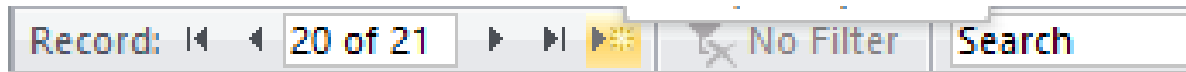
Record: 1 of 2 | No Filter | Search

Record: 1 of 6 | No Filter | Search

<https://www.microassist.com/software-tips/creating-access-subforms/>

Entering information into the database using forms

- We can enter verbal and numerical information from the keyboard into the "Name", "Surname", "Student Number", "Faculty / School", "Course", "Midterm Exam" and "Final Exam" to the Student Form.
- We can use the "Tab" key on the keyboard or the left mouse button to switch between boxes.
- After the 1st record is finished, we can switch to the 2nd record, using the back and forth symbols next to the "Record" sign.

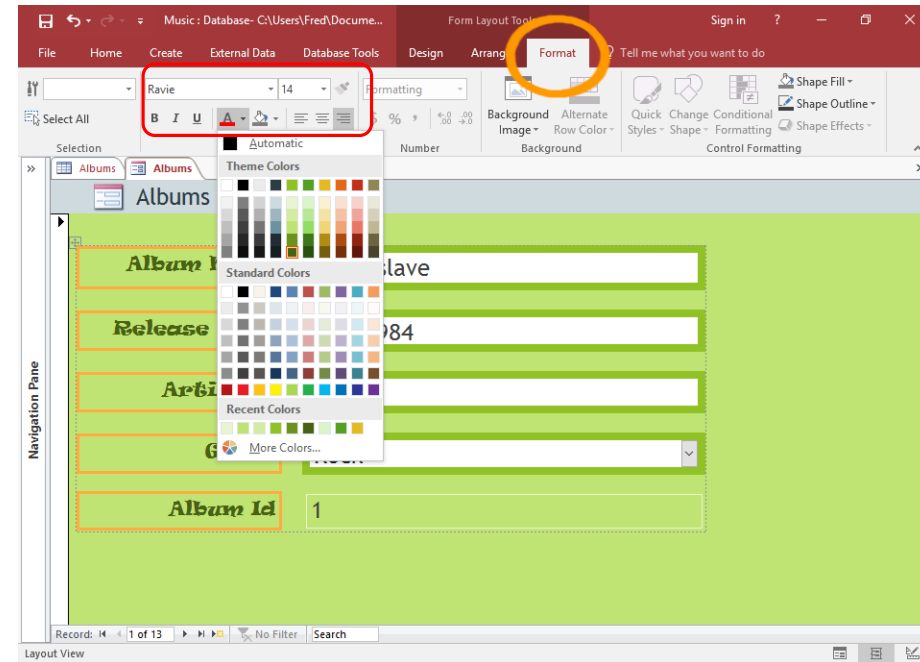


Changing the Form Views

- Since the forms are the visual forms of the tables, it is important to prepare the appearance of the forms carefully.
- We can format the text of a form, change the background colors, add shapes or graphics and adjust their position on the screen.

Formatting text

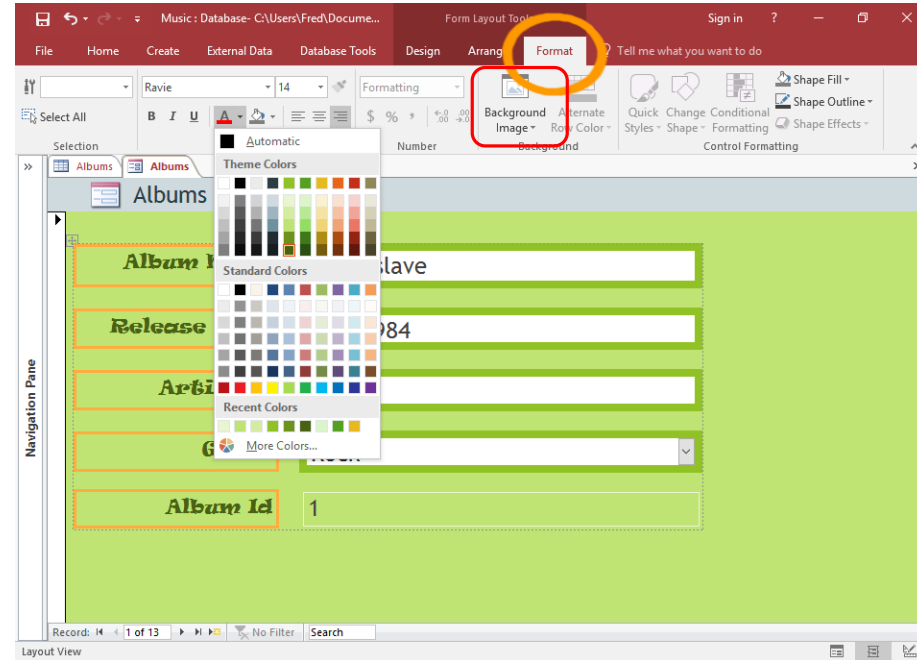
- To make the form easier to read and attract attention, we can change the appearance of the text in the form, the size of the text, and decide on the font and color.
- For formatting the text, we can use the "Font" from the "Format" ribbon components in the "Form Layout Tools" or "Form Design Tools" ribbon.



Retrieved from: <http://office--office.com/blog/how-to-create-a-tabbed-form-in-access-2016/>

Changing the background colors

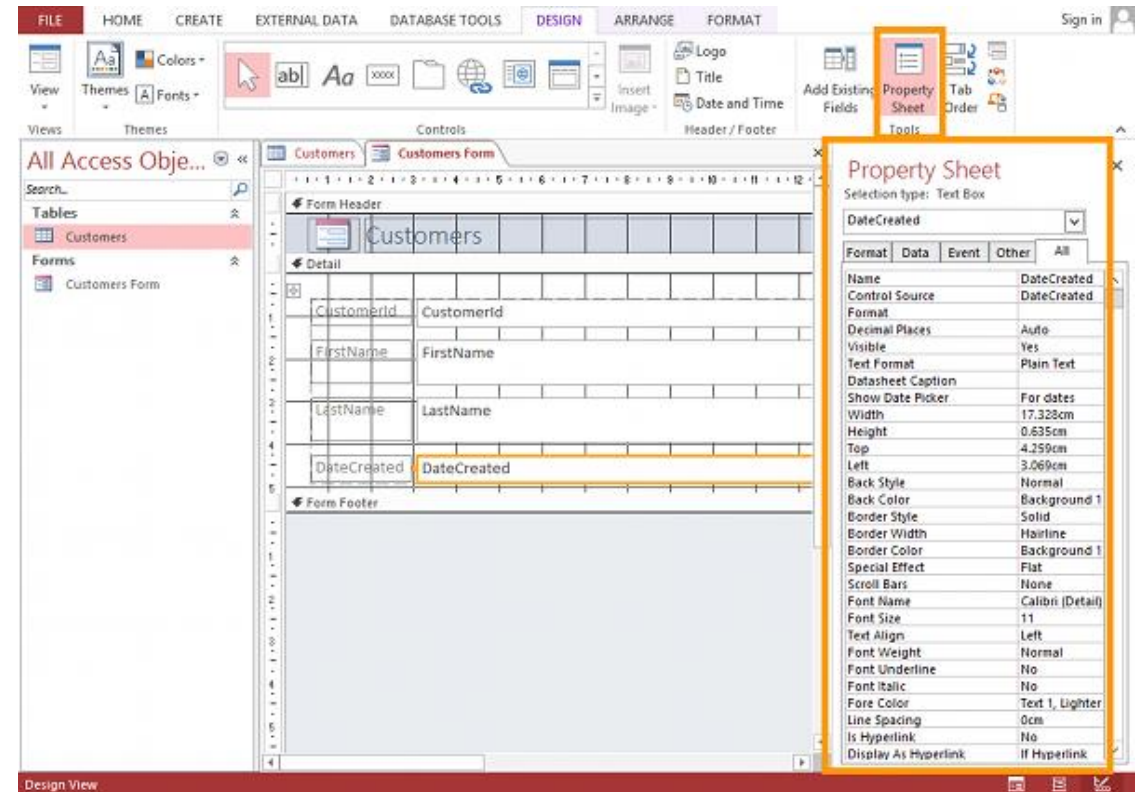
- We can use the "Background Image" from the "Format" strip components to change the background colors of a form.



Retrieved from: <http://office--office.com/blog/how-to-create-a-tabbed-form-in-access-2016/>

Add a shape or graphic file

- Selecting the "Design" ribbon of a form will open various "Theme" and Moderation tools. After clicking the button named "Picture" in the "Controls", go to the form and press the left mouse button to adjust the size of the picture in the form.
- As soon as you take your hand off the mouse after the size adjustment is finished, a dialog box for finding the picture you want will appear on the screen and the selected picture will be added to the form.
- If you want, it is possible to add "Text box", "Label", "Button" and many other different control elements to the form from the same ribbon.



<https://database.guide/microsoft-access-tutorial-part-3-queries-forms-macros/>

Access to Information

- The data entered into the database should be accessible later. Otherwise, we will only have one data stack. We create queries to access recorded data, create filters, and pass data through selection and classification
- Regarding access to information, firstly basic operations will be emphasized. "Query", which is the key word in basic operations, is the access of the data that users need from the regularly stored data, through various criteria..

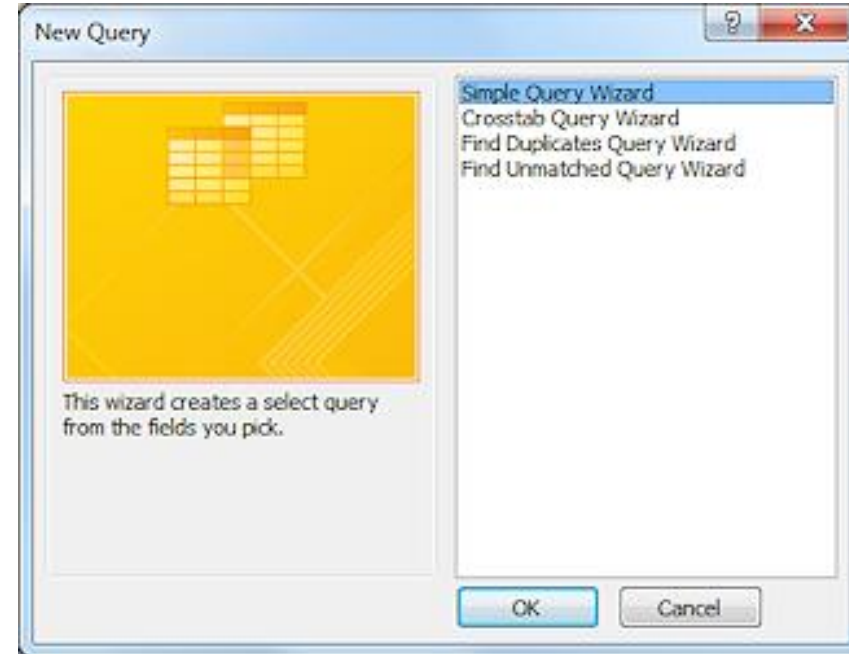
Finding records based on given criteria

There are several types of query process that means finding records or records according to the given criteria:

- Simple Query: It lists the records in the "Data Sheet".
- Crosstab Query: Displays the values of intersecting rows and columns in a table.
- Duplicate Finding Query: It performs the operations based on the criteria we set on the records. These operations include finding duplicates, deleting, updating, adding and making tables.
- Unmatched Query: User can enter data from outside during querying. It can find unmatched ones.
- SQL Query: It is used to do some special SQL operations.

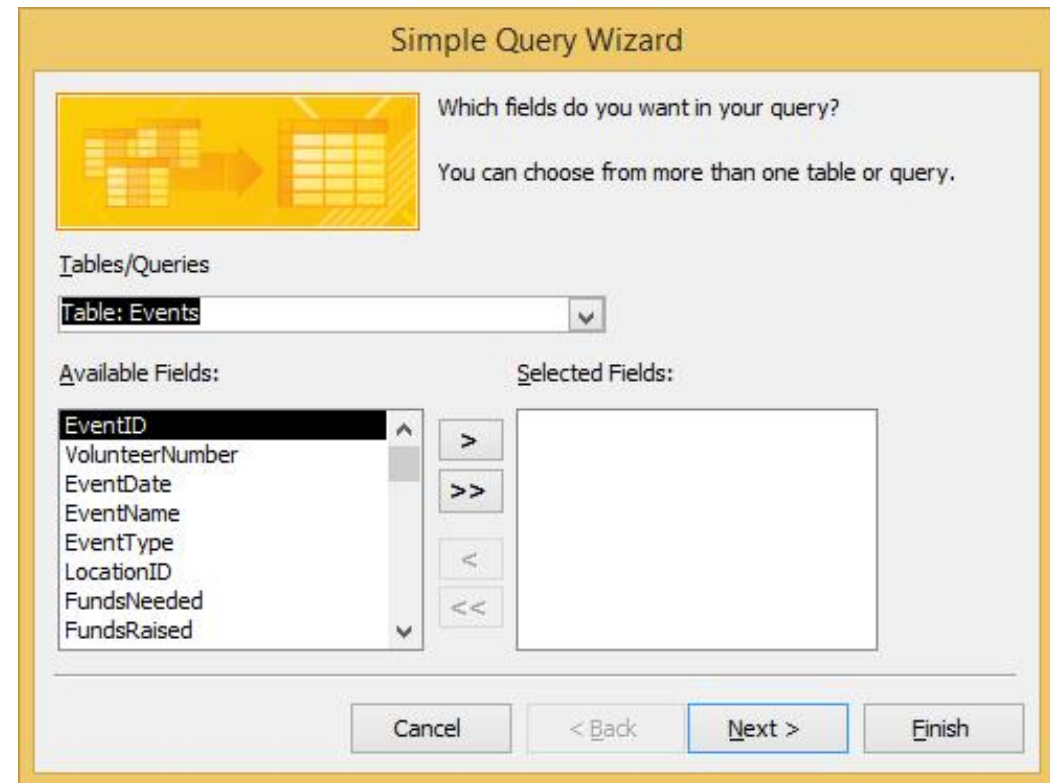
Create a simple query

There are two options, "Query Wizard" and "Query Design" in the "Queries" tab in the "Create" tab in the database. If you double click on the "Query Wizard" option, the "New Query" window below will open.



Create a simple query

The first option in the window, "Simple Query Wizard" must be selected. In order for a query to work, the value to be produced at the end of the query must be defined. The table to be queried in the window will be automatically selected. Out of the fields in the Available Fields, the one that will be output should be transferred to the "Selected Fields" section. For this, the relevant field must be clicked and transferred to the selected area.



Retrieved from: <https://www.dummies.com/software/microsoft-office/access/how-to-run-the-query-wizard-in-access-2016/>

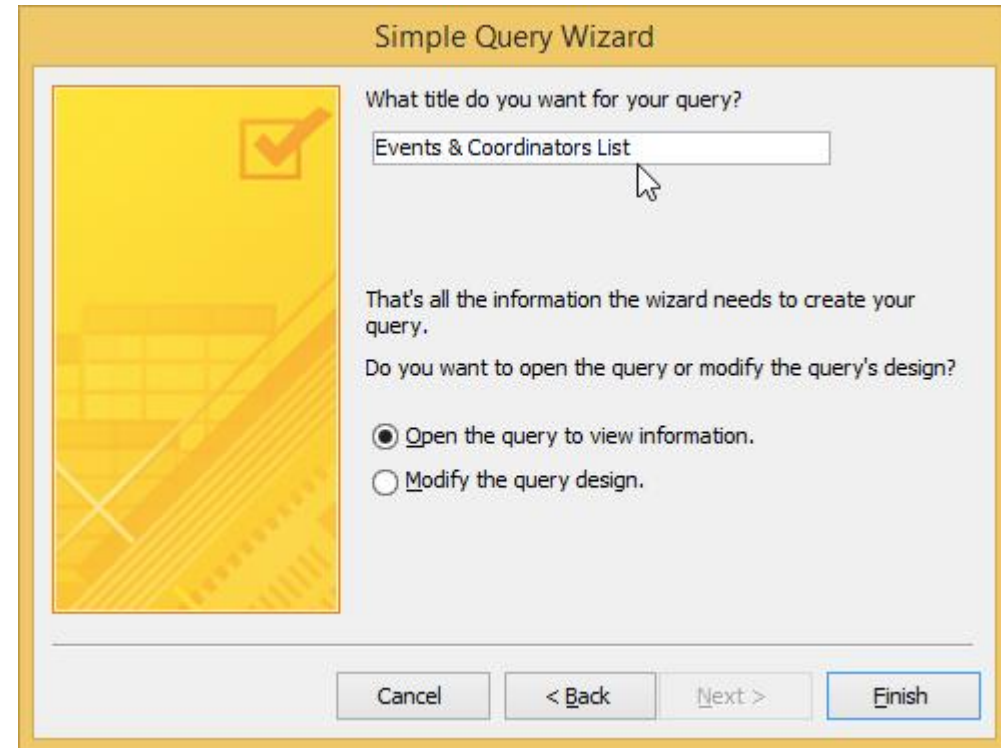
Query based on multiple criteria

- You can use more than one query at the same time in MS-Access. For this, out of the fields in "Available Fields", those that will be output should be transferred to the "Selected Fields" section. For this, the relevant fields (whichever is desired or all fields in the table) must be clicked and transferred to the selected field.
- In this case, our program will try to find records that meet all criteria at the same time and the results will be seen in a different table. This situation is the same with the logic operators "and (and)". If the criteria are on different lines, the program finds the appropriate data for the criteria in any line. This is the same as the logic operators "or (or)".

Save the query

After creating a query, it warns us to save the generated query before clicking the "Finish" button.

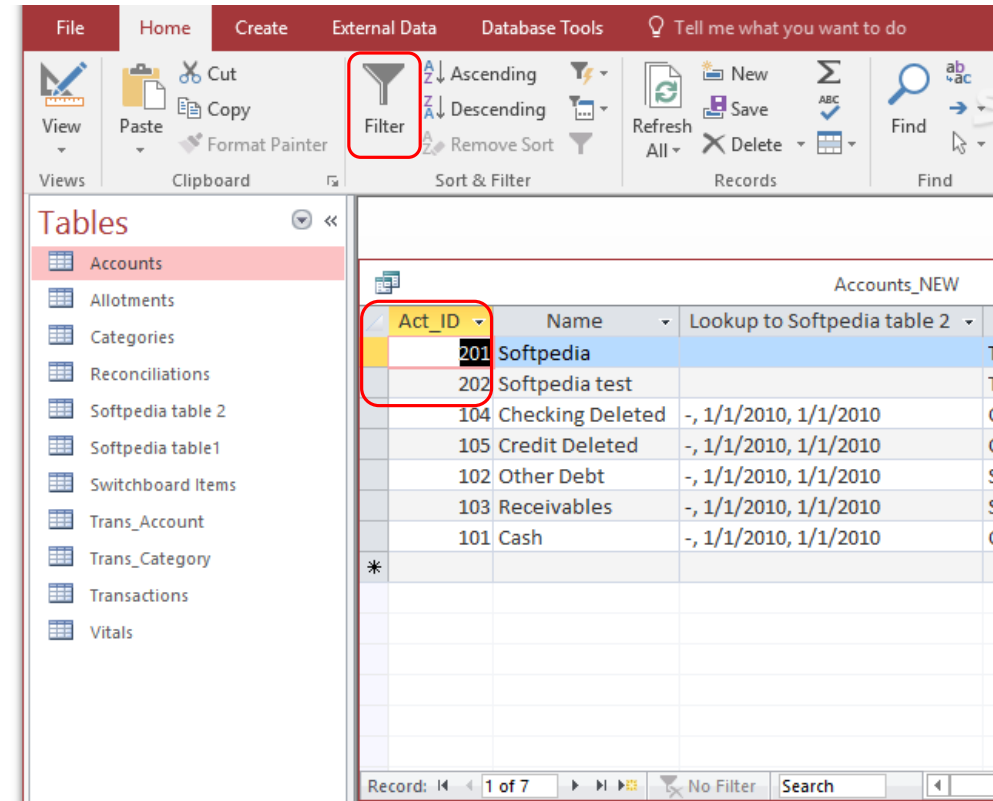
The saved query will appear as "table name query" in the "database window".



<https://www.dummies.com/software/microsoft-office/access/how-to-run-the-query-wizard-in-access-2016/>

Adding filters

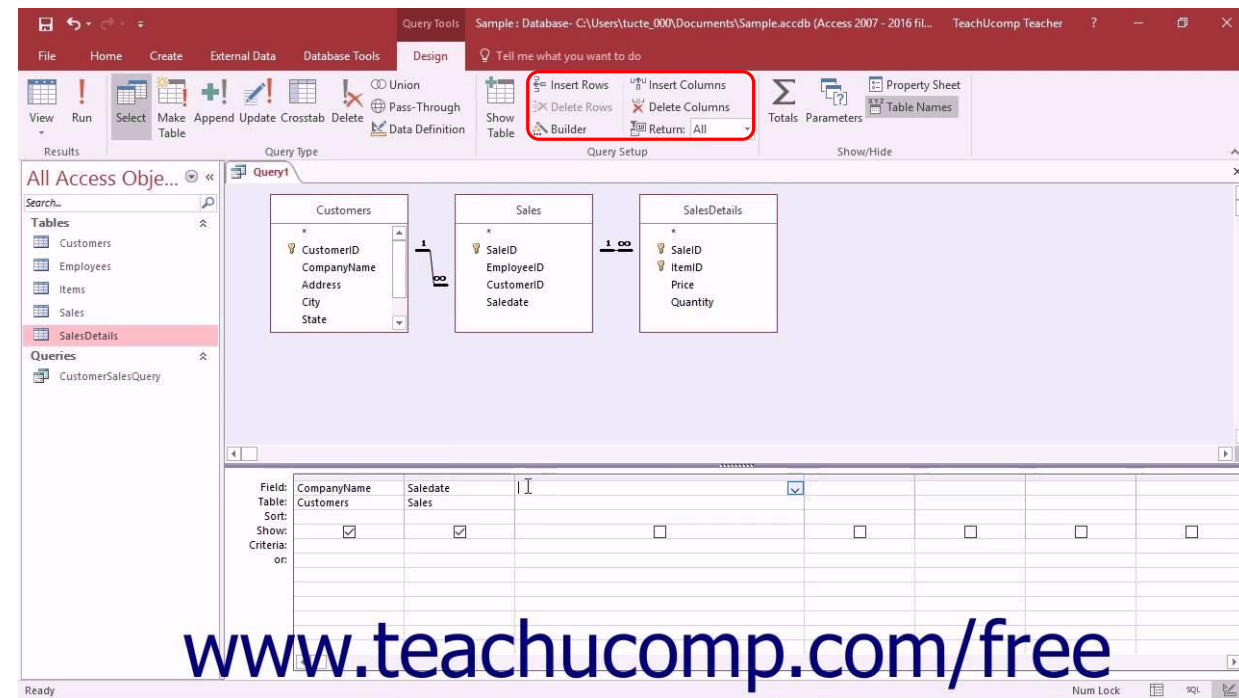
A filter is used to list all data that meet a specific requirement. In order to add a filter to our database application, first the "data page" view of the table is switched to. The area to be filtered is selected by clicking the left mouse button. Text or number filters can be applied according to the nature of the field by clicking on the "Filter" in the Sort and apply filter tab on the "Input" tab. In addition, filtering can be done by pressing the down arrow key in any field while in the "data sheet" view of the table.



<https://www.softpedia.com/get/Internet/Servers/Database-Utils/Microsoft-Access.shtml>

Add and remove fields from the query

To add fields to the query, the design view of the prepared query is switched to. To add a field in any table, double click the field name or drag the field name from the drop-down list. If desired, the "Query Settings" tab on the "Design" tab can be used. To remove the field / fields from the query, the design view of the prepared query is switched to. The field to be removed from the query is selected. If desired, the "Delete" key can be used on the keyboard, if desired, "Delete Column" can be used from the "Query Settings" tab on the "Design" tab.



Selection and Classification

The data contained in a database can be selected and classified numerically and logically. In fact, these operations are not much different from the logic operator operations in MS-Excel.

Selecting and classifying data based on given criteria

It is the process of filtering the data within the filtered area according to a criterion we provide. For example, selecting those with the same name from the list and listing them together.

Selecting and classifying data based on logic operations

It is a filtering process based on logic operators used for situations that need to be checked against more than one situation at the same time. In the process of controlling a filter according to two fields at the same time, the "AND" operator will work for the fields we include in the query and specified in the same row, and the "OR" operator for the fields specified in different rows.

Reporting

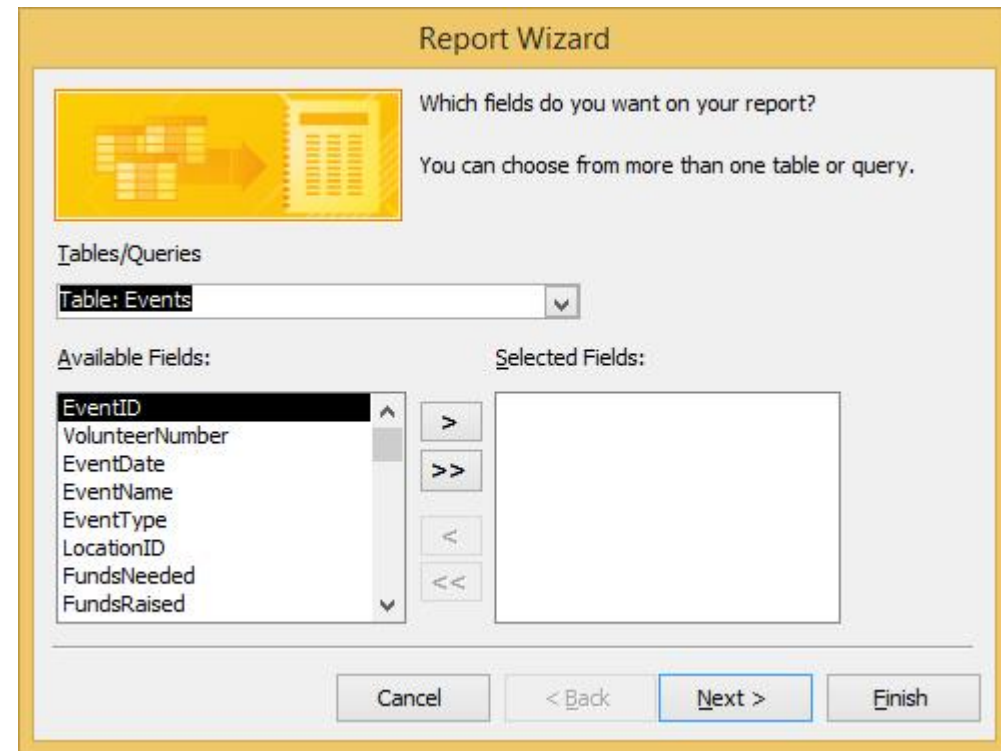
Reporting and querying processes are the same. The different aspect of the reporting process from querying is that the fields presented in the reporting can be visually displayed. The data to be selected from the database can be displayed on the screen in a certain order, the report can be changed, the report can be created page titles and footers, and the data can be grouped.

Displaying Selected Data on the Screen and in Reports in a Specific Order

- While in the tables of the database you want to receive reports, switch to the "Report" tab and click the "New" button.
- The "report format" and field names to be created in the window are specified. In order to create a report, the preferred option can be clicked from the "Report", "Report Design", "Blank Report" and "Report Wizard" options in the "Reports" tab from the "Create" tab.
- We can use the "Report Layout Tools" or "Report Design Tools" tab, which will be opened according to our selection. Using the "Design", "Edit", "Format" and "Page Setup" features in this ribbon, it is quite easy to create a report as we want.
- It is possible to design reports very quickly and easily, especially by using the "Report Wizard".

Create a report using the Report Wizard

In order to create a report, the fields that will be requested at the end of the report must be defined. The table to be reported in the window will be automatically selected, but from the fields in the "Available Fields", the output field should be transferred to the "Selected Fields" section. For this, the relevant field or fields must be clicked and transferred to the selected area.



The screenshot shows the "Report Wizard" dialog box in Microsoft Access. The title bar reads "Report Wizard". Inside the dialog, there is a yellow icon of a report and a question: "Which fields do you want on your report? You can choose from more than one table or query." Below this, there is a section for "Tables/Queries" with a dropdown menu currently set to "Table: Events". Underneath, there are two columns: "Available Fields" and "Selected Fields". The "Available Fields" list includes: EventID, VolunteerNumber, EventDate, EventName, EventType, LocationID, FundsNeeded, and FundsRaised. The "Selected Fields" area is currently empty. Between the two columns are four arrow buttons: a single right arrow (>), a double right arrow (>>), a single left arrow (<), and a double left arrow (<<). At the bottom of the dialog, there are four buttons: "Cancel", "< Back", "Next >", and "Finish".

<https://www.dummies.com/software/microsoft-office/access/how-to-start-the-report-wizard-in-access-2016/>

Sample Report

Employee Salaries

Last Name	First Name	Salary
Applebee	Joe	75,000.00
French	Tim	30,000.00
Jordan	Jen	86,000.00
Selge	Tam	95,000.00
Logan	Martin	76,000.00
Cortez	Nadia	40,000.00
Freedman	Jon	55,000.00
Siegel	Ben	20,000.00
Johnson	Mitchell	77,000.00
Norton	Tom	77,000.00
Sanchez	Barbara	98,000.00
Williams	Linda	78,000.00
Jones	Pamela	32,000.00
Franklin	Janet	45,000.00
Thompson	Philip	106,000.00
Siegel	Joy	75,000.00
Taylor	George	150,000.00
Nixon	Len	65,000.00

Creating Page Titles and Footers

After the report is in layout or design view, desired document edits can be made by clicking on the buttons such as "Logo", "Header", "Page Number" in the "Header / Footer" tab in the Report Layout / Design Tools Design ribbon. Also, the "Themes" tab on the same ribbon can be used to quickly apply designs.

Grouping Data

We can choose to group the records in order to better organize the data in the report. Click on the "Group and Sort" button on the "Groups and Themes" tab in the Report Layout Tools Design tab. By selecting "Add Group" from the "Grouping, Sorting and Total" section below, the field and fields to be grouped can be selected. Later, sorting criteria fields can be selected from "Add Sort".