

Informatics

Database management system - III



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Informatics

Outline of the lecture



- **Form wizard**
 - **Form with subforms**
 - **Report wizard**
 - **Organize report**
 - **Macro**
-

Form



- A form in Access is a database object that you can use to create a user interface for a database application.*
- A "bound" form is one that is directly connected to a data source such as a table or query, and can be used to enter, edit, or display data from that data source.*
- Alternatively, you can create an "unbound" form that does not link directly to a data source, but which still contains command buttons, labels, or other controls that you need to operate your application.*
- You can also add command buttons and other features to a form to automate frequently performed actions.*

Form wizard



- Here are the steps to creating a form:*
 - On the Create form, under the Forms group, click More Forms and click Form Wizard.
 - Follow the directions on the wizard. The directions will have you select which tables and queries you want included on the form. You can take away fields or add fields in this step. When complete, hit Next or Finish.
 - Hit Finish on the last page of the wizard. A number of results can be generated depending on the options you chose.

Form wizard



- **Benefits of Using the Form Wizard:***
 - **Additional options** - Using the wizard opens up new options because you can add new fields and take away ones you don't need. This added flexibility puts the control in your hands.
 - **Save time** - Rather than creating forms from scratch, you can use the Form Wizard and customize it to your liking. This saves time and improves efficiency by allowing you to start working immediately.
 - **User friendly** - The Form Wizard is easy to work with. When you pull up the wizard tool, all you need to do is add the fields you want with a double click.

Form wizard



- The Form Wizard gives you more control over your results than one-click forms do.*
- The wizard lets you make decisions about certain aspects of a form's design and produces a form based on your instructions.*
- To create a form based on a single table using the Form Wizard, follow these nine steps.*
- On the Create tab in the Forms group, click Form Wizard. The wizard starts.*

Form Wizard

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

Tables/Queries
Table: Contacts

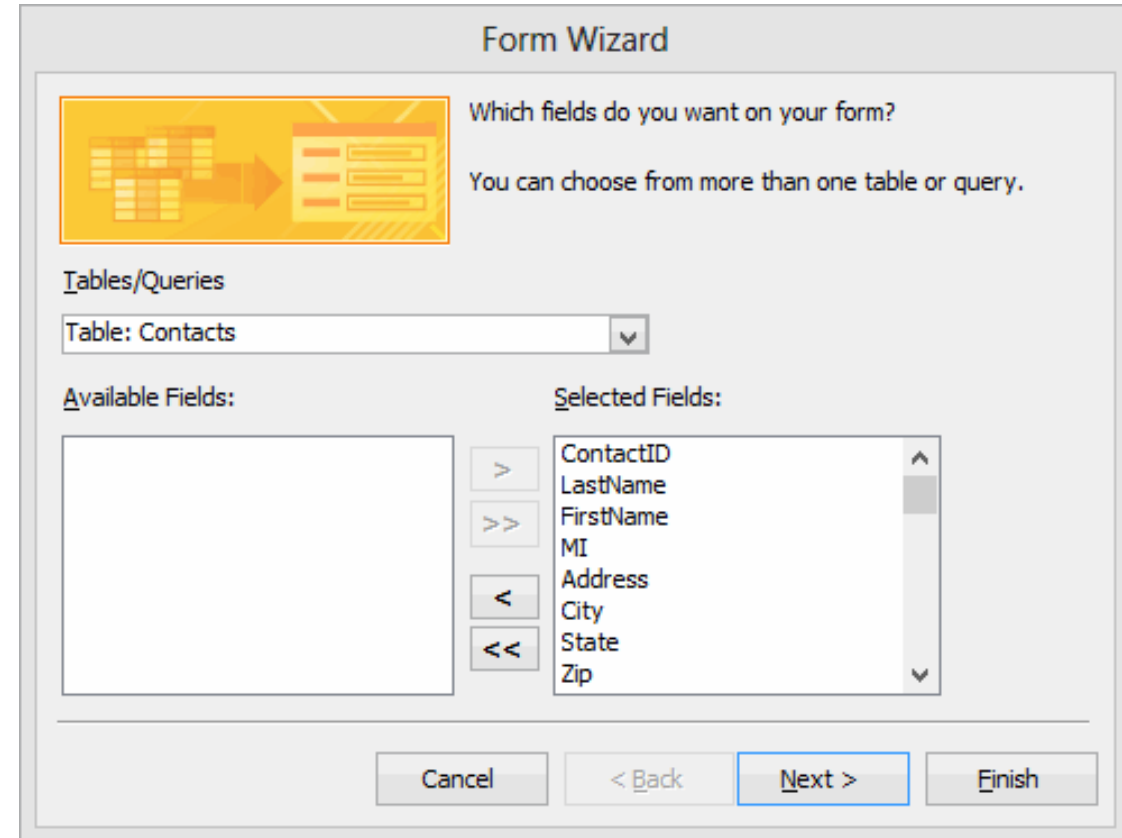
Available Fields:
ContactID
LastName
FirstName
MI
Address
City
State
Zip

Selected Fields:

Cancel < Back Next > Finish

Form wizard

- From the Tables/Queries drop-down list, select the table (or query) to base the form on.*
- The fields for the selected table load in the Available Fields list box.*
- Move the fields to include on the form from the Available Fields list box to the Selected Fields list box.*
- To do so, double-click a field name to move it or highlight the field name and click >. To move all fields at once, click >>.*



Form Wizard

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

Tables/Queries
Table: Contacts

Available Fields:

Selected Fields:

- ContactID
- LastName
- FirstName
- MI
- Address
- City
- State
- Zip

Cancel < Back Next > Finish

Form wizard



- Select the layout for the form. Your options are "Columnar", "Tabular", "Datasheet", and "Justified".*
- Enter a title for the form.*

The screenshot shows the 'Form Wizard' dialog box in Microsoft Access. The title bar reads 'Form Wizard'. The main area contains the question 'What title do you want for your form?' with a text box containing the word 'Contacts'. Below this, it says 'That's all the information the wizard needs to create your form.' and asks 'Do you want to open the form or modify the form's design?'. There are two radio button options: 'Open the form to view or enter information.' (which is selected) and 'Modify the form's design.'. On the left side, there is a yellow graphic with a checkmark and a grid pattern. At the bottom, there are four buttons: 'Cancel', '< Back', 'Next >', and 'Finish'.

The screenshot shows the 'Form Wizard' dialog box in Microsoft Access, at the second step. The title bar reads 'Form Wizard'. The main area contains the question 'What layout would you like for your form?'. On the left, there is a preview window showing a columnar form layout with orange and yellow elements. On the right, there are four radio button options: 'Columnar' (selected), 'Tabular', 'Datasheet', and 'Justified'. At the bottom, there are four buttons: 'Cancel', '< Back', 'Next >', and 'Finish'.

Form wizard

- Select an option for the view you want to open the form in. Your options are:
 - Open the form to view or enter information (opens in Form view).
 - Modify the form's design (opens in Design view).
- Click Finish. The form loads in the view you selected.*

Contacts - Form Wizard

Contact ID:

Last Name:

First Name:

MI:

Address:

City:

State:

Zip:

Cell:

Birthdate:

Relative:

Record: 1 of 5 | No Filter | Search

Form view

Contacts - Form Wizard

Form Header

Detail

Contact ID	ContactID
Last Name	LastName
First Name	FirstName
MI	MI
Address	Address
City	City
State	State
Zip	Zip
Cell	Cell
Birthdate	Birthdate
Relative	<input checked="" type="checkbox"/>

Form Footer

Design view



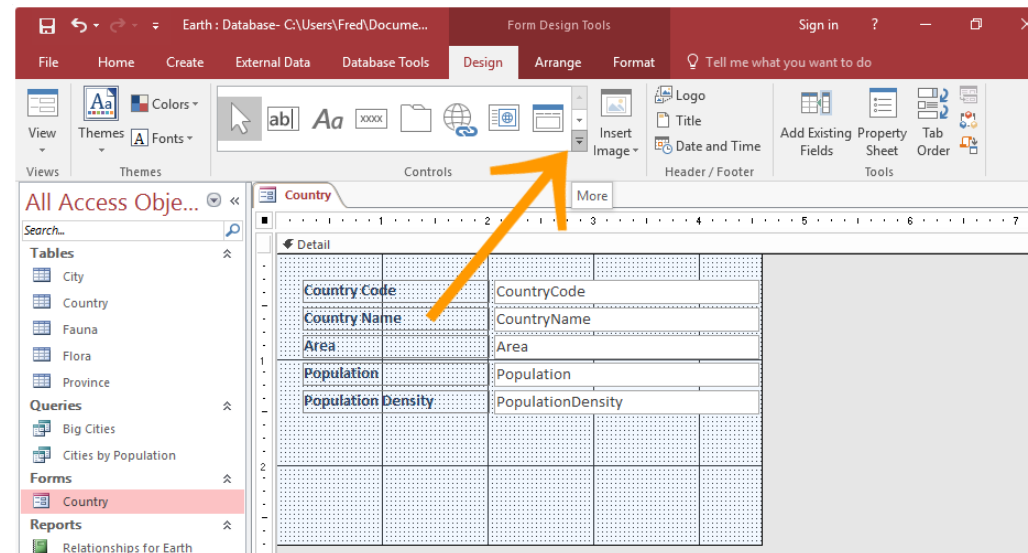
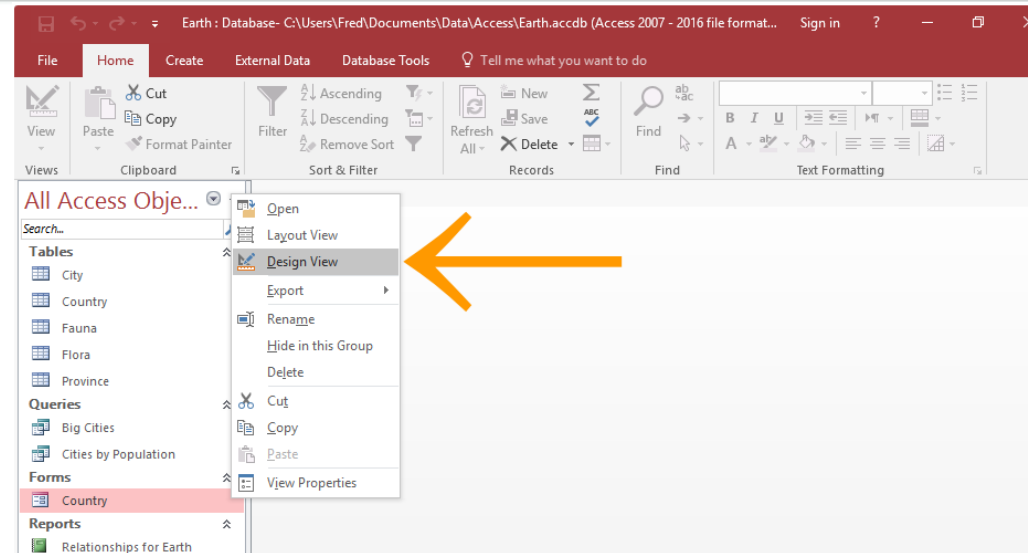
Form wizard



- <https://support.office.com/en-us/article/create-a-form-by-using-the-form-wizard-2786d31a-7241-4c11-9747-1ecf88b4d04b>
 - <https://www.webucator.com/how-to/how-create-form-with-the-form-wizard-microsoft-access.cfm>
 - <https://www.dummies.com/software/microsoft-office/access/how-to-generate-forms-in-access-2016/>
 - https://www.quackit.com/microsoft_access/microsoft_access_2016/tutorial/create_a_form_in_microsoft_access.cfm
-

Form with subform

- In the left Navigation Pane, right-click on the form and select Design View from the contextual menu.*
- Locate the Controls group on the Design tab in the Ribbon.*
- Click the little down-arrow to expand the list of available form controls.*



Form with subform



- Click the Subform/Subreport icon to select it.*
- Then click in the form, in the location that you'd like the subform to be displayed.*
- This launches the SubForm Wizard.*
- You have the option of basing your subform on a table or query, or on an existing form.*
- In this example, we'll select Use existing Tables and Queries.*
- Once you've selected the option, click Next >.*

Form with subform



The screenshot shows the Microsoft Access Design view of a form. The ribbon is set to 'Design'. In the 'Form Design Tools' group, the 'Subform/Subreport' icon is highlighted with an orange arrow. The form design grid shows a table with columns for 'CountryName', 'Area', 'Population', and 'PopulationDensity'. The 'CountryName' column is currently selected.

SubForm Wizard

The SubForm Wizard dialog box is shown. It contains the following text and options:

You can use an existing form to create your subform or subreport, or create your own using tables and/or queries.

What data would you like to use for your subform or subreport?

Use existing Tables and Queries

Use an existing form

Buttons at the bottom: Cancel, < Back, Next >, Finish

Form with subform



- If you selected Use existing Tables and Queries, you will now be asked to select the fields to use in the subform.*
- Select the table or query from the drop-down list.*
- On the left pane, select each field that you need on the subform, then click the little > button to move it across to the right pane.*
- You can select fields from more than one table or query. Simply select another table/query from the drop-down when you're done with the first one.
- Once done, click Next >.*

SubForm Wizard

Which fields would you like to include on the subform or subreport?

You can choose fields from more than one table and/or query.

Tables/Queries

Table: City

Available Fields:

CityId
CountryCode

Selected Fields:

CityName
Population
Longitude
Latitude

Cancel < Back Next > Finish

Form with subform



- There needs to be a field that links the main form and its subform. This is typically an ID field or similar.*
- If you've previously set up a relationship for the tables, then Access will guess which field to use based on the primary key and foreign key of the relationship.*
- At this part of the wizard, Access gives you the opportunity to choose your own field or select another one from the list provided.*
- For this example we leave it at the field that Access guessed.*
- Once you've selected a field, click Next >.*

Form with subform



SubForm Wizard

Would you like to define which fields link your main form to this subform yourself, or choose from the list below?

Choose from a list. Define my own.

Show City for each record in <SQL Statement> using CountryCode
Show City for each record in <SQL Statement> using Population
None

Show City for each record in <SQL Statement> using CountryCode

Cancel < Back **Next >** Finish

SubForm Wizard

What name would you like for your subform or subreport?

City subform

Those are all the answers the wizard needs to create your subform or subreport.

Cancel < Back Next > **Finish**

Form with subform



- https://www.quackit.com/microsoft_access/microsoft_access_2016/howto/how_to_add_a_subform_to_a_form_in_access_2016.cfm
 - <https://support.office.com/en-us/article/create-a-form-that-contains-a-subform-a-one-to-many-form-ddf3822f-8aba-49cb-831a-1e74d6f5f06b>
 - <https://access-programmers.com/main-form-and-subform-concepts>
 - <https://www.microassist.com/software-tips/creating-access-subforms/>
-

Report

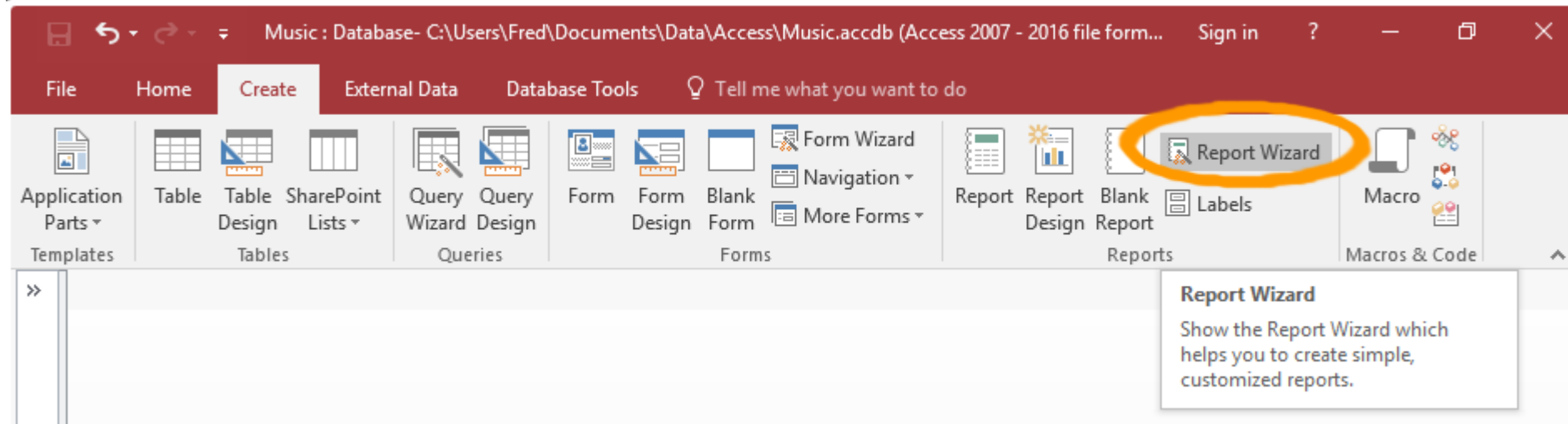


- Reports offer a way to view, format, and summarize the information in your Microsoft Access database.*
- For example, you can create a simple report of phone numbers for all your contacts, or a summary report on the total sales across different regions and time periods.*
- The design of a report is divided into sections that you can view in the Design view.*
- Understanding how each section works can help you create better reports.*
- For example, the section in which you choose to place a calculated control determines how Access calculates the results.*

Report wizard



- A grouped report (also known as a summary report), is a report where one or more fields are used to group the other fields.*
- This can be handy if one field has lots of repeating values, as you can display the value once, then display all records that belong to that group.*
- Click Report Wizard on the Ribbon (from the Create tab).*



Report wizard

- Access now gives you the opportunity to specify more grouping levels if required.*
- In our example, we'll leave it as it is (at one grouping level).
- Click Next >.*
- You can specify fields to sort the report details by. This sorts the fields within each group (not the grouped fields).*
- Once done, click Next >.*



Report Wizard

Do you want to add any grouping levels?

AlbumName
ReleaseDate
Genre

ArtistName
AlbumName, ReleaseDate, Genre

Grouping Options ... Cancel < Back Next > Finish

Report Wizard

What sort order do you want for detail records?

You can sort records by up to four fields, in either ascending or descending order.

1	ReleaseDate	Ascending
2		Ascending
3		Ascending
4		Ascending

Cancel < Back Next > Finish

Report wizard



Report Wizard

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

Tables/Queries
Table: Artists

Available Fields:
ArtistId

Selected Fields:
AlbumName
ReleaseDate
Genre
ArtistName

Cancel < Back Next > Finish

Report Wizard

How do you want to view your data?

by Artists
by Albums

Show me more information

ArtistName
AlbumName, ReleaseDate, Genre

Cancel < Back Next > Finish

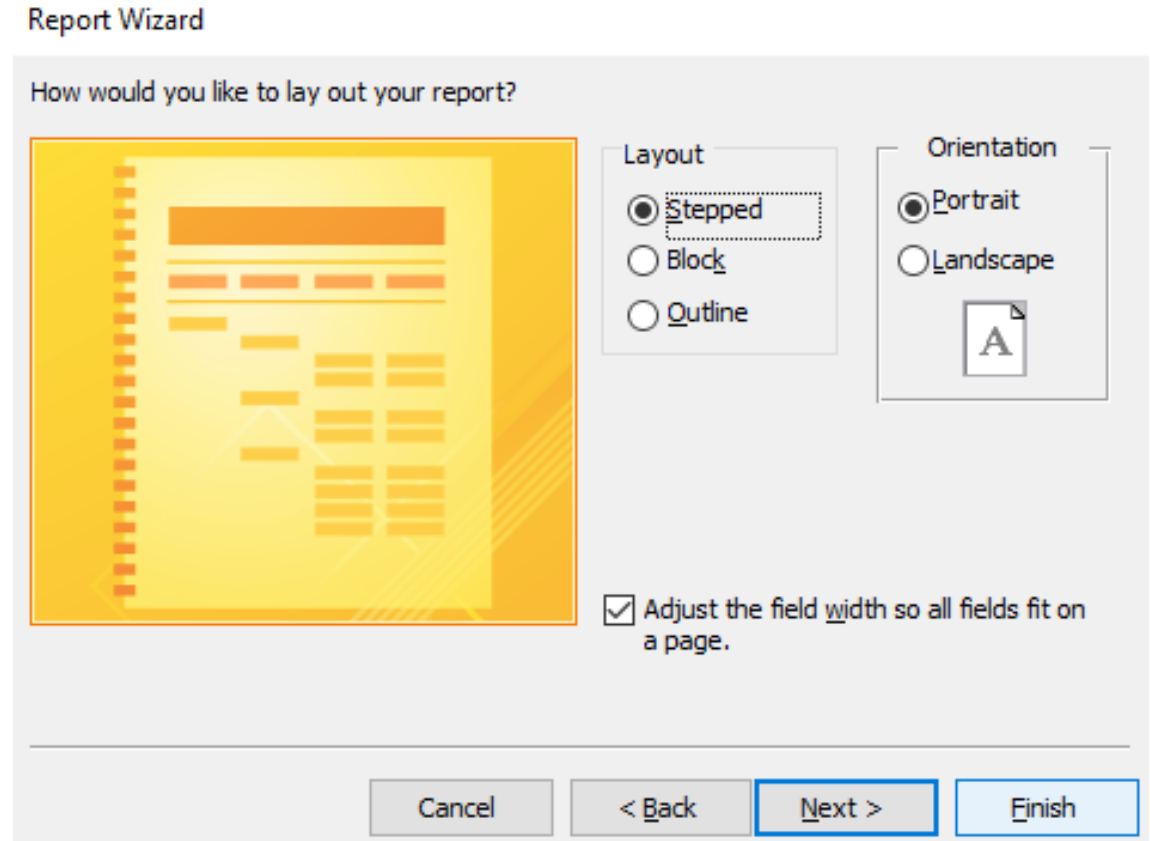
Report wizard



- Select one of the preset layouts for the report.*
- The preview will update when you select an item. Feel free to select each one to see how it affects the layout.*
- You can also change the orientation to Landscape if required.*
- For our example, we'll leave the report with a Stepped layout and a Portrait orientation.*

Report Wizard

How would you like to lay out your report?



The dialog box shows a preview of a report on the left, which is a yellow document with a spiral binding and a grid of data. To the right of the preview are two sections: 'Layout' and 'Orientation'. The 'Layout' section has three radio buttons: 'Stepped' (selected), 'Block', and 'Outline'. The 'Orientation' section has two radio buttons: 'Portrait' (selected) and 'Landscape'. Below these sections is a checkbox labeled 'Adjust the field width so all fields fit on a page.' which is checked. At the bottom of the dialog are four buttons: 'Cancel', '< Back', 'Next >', and 'Finish'.

Layout

Stepped

Block

Outline

Orientation

Portrait

Landscape

Adjust the field width so all fields fit on a page.


Cancel < Back Next > Finish

Report wizard



- Enter a name for the report.*
- You also have the option of either previewing the report or modifying its design once the wizard has finished creating it.*
- For our example, we'll leave it at Preview the report.*
- Click Finish to generate the report.*

Report Wizard



What title do you want for your report?

That's all the information the wizard needs to create your report.

Do you want to preview the report or modify the report's design?

Preview the report.

Modify the report's design.

Cancel < Back Next > Finish

Report wizard – organize the report



- Click Next when you are satisfied with the basic organization of your data.*
- If you're not satisfied with the way your data is organized, you can now modify the grouping levels.*
- Select a field from the list, and click the right arrow to add it as a new level.*

The screenshot shows the 'Report Wizard' dialog box. The title bar reads 'Report Wizard'. The main question is 'Do you want to add any grouping levels?'. On the left, there is a list of fields: 'Products Table.Product Name', 'Description', 'Sales Unit.Product Name', and 'Price'. The 'Sales Unit.Product Name' field is selected and highlighted. To the right of this list are four buttons: a blue button with a right-pointing arrow (which is being clicked by a mouse cursor), a grey button with an up-pointing arrow, a grey button with a down-pointing arrow, and a grey button labeled 'Priority'. On the right side of the dialog, there is a large text area containing the following text: 'Product Types', 'Products Table_Product Name, Description', and 'Sales Unit_Product Name, Price'. At the bottom of the dialog, there are five buttons: 'Grouping Options ...', 'Cancel', '< Back', 'Next >', and 'Finish'. The 'Next >' button is highlighted with a blue border.

Report wizard – organize the report



- If necessary, modify the order of your grouped fields by selecting a field and clicking the up or down Priority arrow to move it up or down a level.*
- Once you are satisfied with the organization of your report, click Next.*

A screenshot of the 'Report Wizard' dialog box. The title bar reads 'Report Wizard'. The main text asks 'Do you want to add any grouping levels?'. On the left, a list box contains 'Products Table.Product Name' and 'Description'. To its right are four buttons: a right-pointing arrow (>), a left-pointing arrow (<), an up-pointing arrow (↑) labeled 'Priority', and a down-pointing arrow (↓). A mouse cursor is hovering over the 'Priority' button. On the right, a larger list box contains 'Product Types', 'Products Table_Product Name, Description', 'Sales Unit_Product Name' (highlighted in blue), and 'Price'. A yellow rectangular box highlights the right-hand list box. At the bottom, there are five buttons: 'Grouping Options ...', 'Cancel', '< Back', 'Next >', and 'Finish'.

*<https://edu.gcfglobal.org/en/access2016/advanced-report-options/1/>

Report wizard



- <https://www.dummies.com/software/microsoft-office/access/how-to-start-the-report-wizard-in-access-2016/>
 - <https://www.webucator.com/how-to/how-create-report-with-the-report-wizard-microsoft-access.cfm>
 - <https://support.office.com/en-us/article/create-a-grouped-or-summary-report-f23301a1-3e0a-4243-9002-4a23ac0fdbf3>
 - <https://edu.gcfglobal.org/en/access2016/advanced-report-options/1/>
-

Macros



- https://www.quackit.com/microsoft_access/microsoft_access_2016/tutorial/create_a_macro_in_microsoft_access.cfm
 - <https://support.office.com/en-us/article/create-a-user-interface-ui-macro-12590d3b-b326-4207-bfe5-19234f53f08b>
 - <https://database.guide/how-to-create-a-macro-in-access/>
 - https://www.tutorialspoint.com/ms_access/ms_access_macros.htm
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The end



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Thank you for your attention!
Any questions?
