



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

200
1822 - 2022

MS ACCESS- Reports

Man Geni Addysg Uwch yng Nghymru
Where Higher Education Began in Wales

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Recap: Activity 2

Create a form with fields EmpID, Firstname, Last name, salary, Hire date, performance rating. bonus amount, Annual increment and New salary are calculated fields and should be included in forms

Note:

- Create a new table Bonuses(bonus amount, bonus date ,employeeid as Foreign key)
- Include a calculated field that shows a 10% increase in salary as a "Projected Salary."
 - Add a textbox field labelled "Annual increment" to the form.
 - Set the Control Source property of the "Annual Increment" field to an expression that calculates a 10% increase in the entered salary.
- New salary is also a calculated field adding Bonus amount and annual increment

Recap Activity: Filtering Data in a Form

Create a form named "EmployeeFilterForm" to allow users to filter employees based on their job titles.

Add a combo box or list box to select job titles and filter the report accordingly.

Reports

A report is a database object that presents data in a structured and organized format for printing or viewing

allow users to generate formatted and customized outputs based on the underlying data.

What can you do with a report?

- Display or distribute a summary of data.
- Archive snapshots of the data.
- Provide details about individual records.
- Create labels.

Parts of a report

Section	How the section is displayed when printed	Where the section can be used
Report Header	At the beginning of the report.	Use the report header for information that might normally appear on a cover page, such as a logo, a title, or a date. When you place a calculated control that uses the Sum aggregate function in the report header, the sum calculated is for the entire report. The report header is printed before the page header.
Page Header	At the top of every page.	Use a page header to repeat the report title on every page.
Group Header	At the beginning of each new group of records.	Use the group header to print the group name. For example, in a report that is grouped by product, use the group header to print the product name. When you place a calculated control that uses the Sum aggregate function in the group header, the sum is for the current group. You can have multiple group header sections on a report, depending on how many grouping levels you have added. For more information about creating group headers and footers, see the section Add grouping, sorting, or totals.

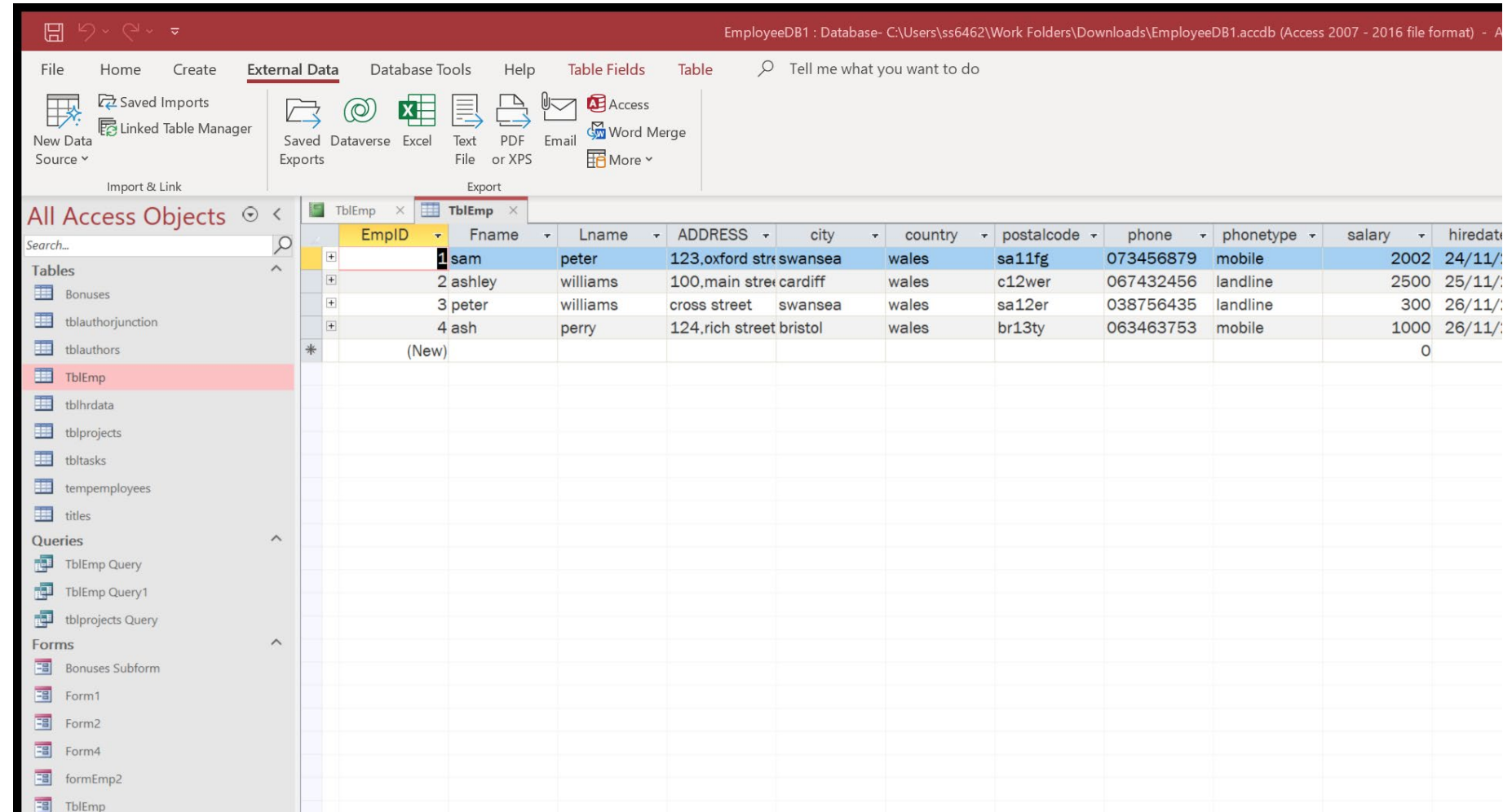
Parts of a report

Section	How the section is displayed when printed	Where the section can be used
Detail	Appears once for every row in the record source.	This is where you place the controls that make up the main body of the report.
Group Footer	At the end of each group of records.	Use a group footer to print summary information for a group. You can have multiple group footer sections on a report, depending on how many grouping levels you have added.
Page Footer	At the end of every page.	Use a page footer to print page numbers or per-page information.
Report Footer	At the end of the report. Note: In Design view, the report footer appears below the page footer. However, in all other views (Layout view, for example, or when the report is printed or previewed), the report footer appears <i>above</i> the page footer, just after the last group footer or detail line on the final page.	Use the report footer to print report totals or other summary information for the entire report.

Create a report in Access

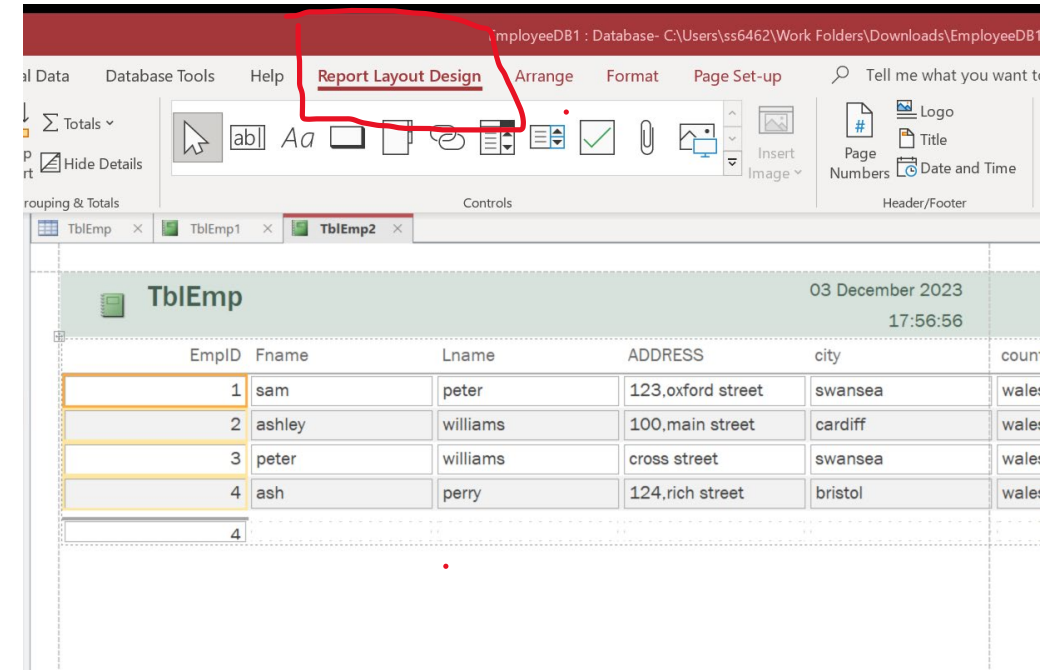
Step 1: Choose a record source

Record Source:
a table, a
named query or
an embedded
query



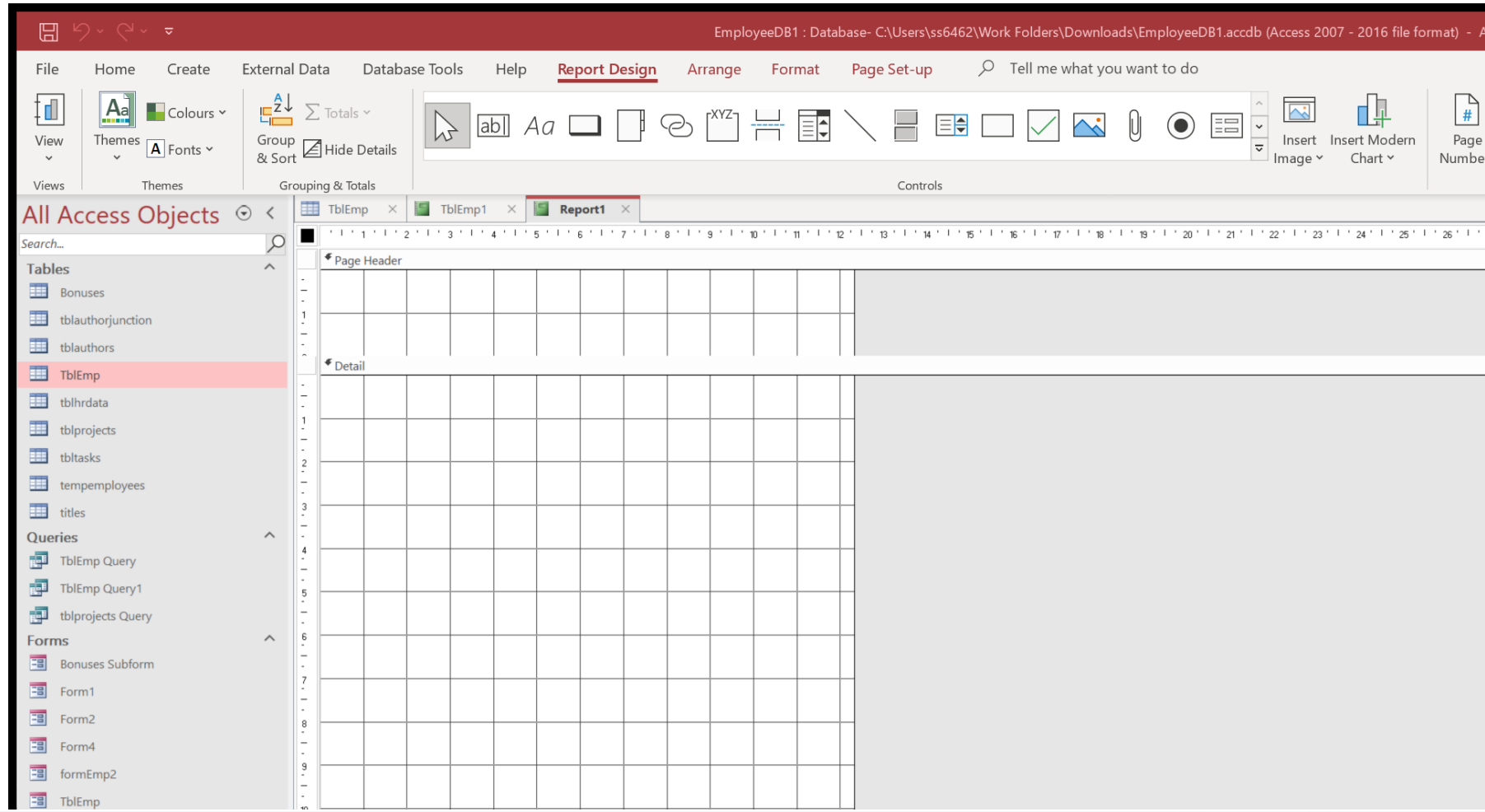
The report tools are located on the **Create** tab of the ribbon, in the **Reports** group.

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Step 2: Choose a report tool

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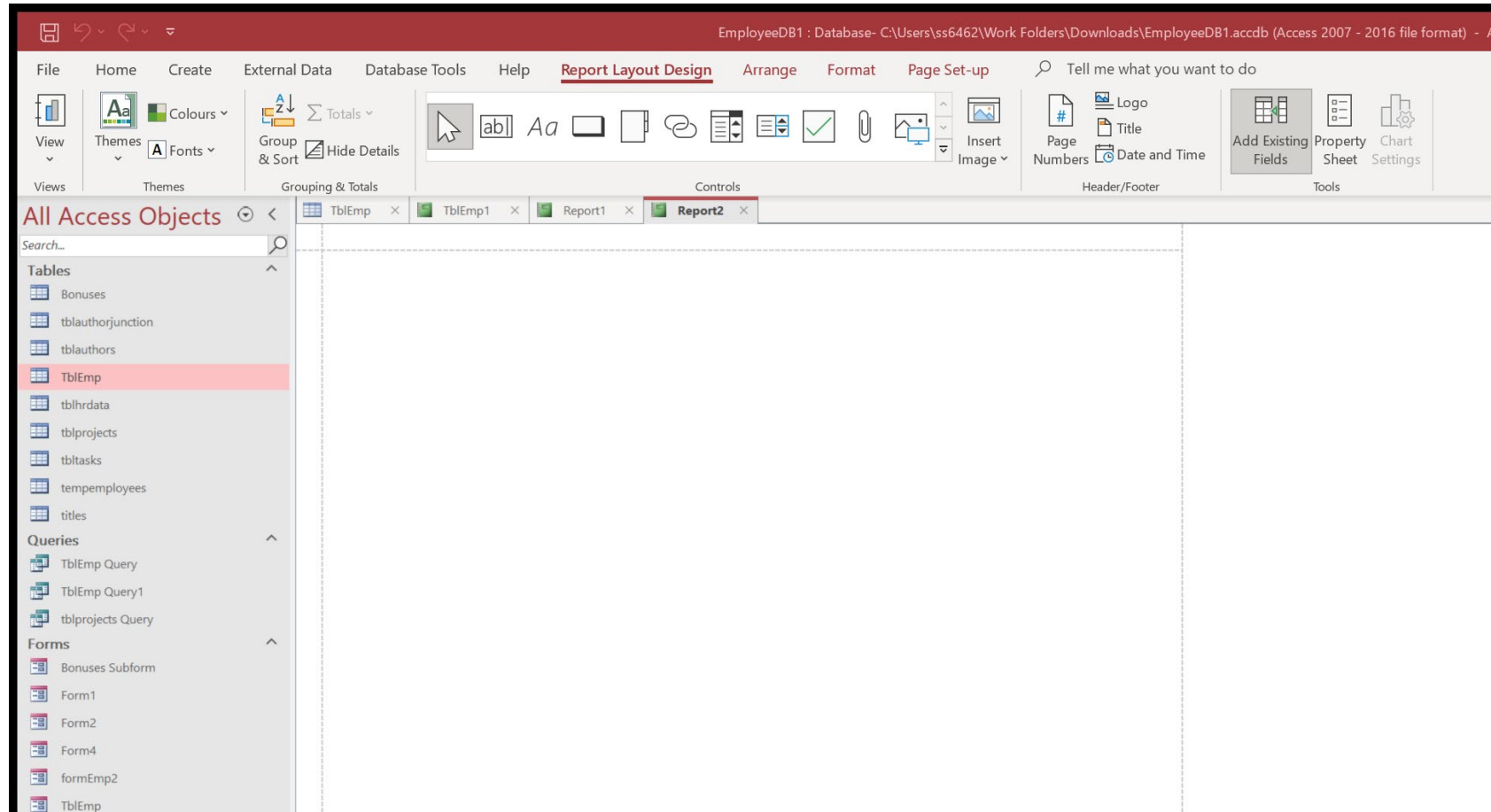
The screenshot shows the Microsoft Access interface with the **Report Layout Design** ribbon selected. The ribbon includes groups for **View**, **Themes**, **Grouping & Totals**, **Controls**, and **Header / Footer**. The **tblhrdata** report is open, displaying a table with the following data:

hr_id	empid	startsalary	hours	hiredate
1	1	10000	40	13/10/2022
2	1	12000	35	17/11/2022
3	2	11000	40	13/10/2021

The report is titled **tblhrdata** and shows the date **04 December 2023** and time **09:20:47**. The page number **Page 1 of 1** is displayed at the bottom.

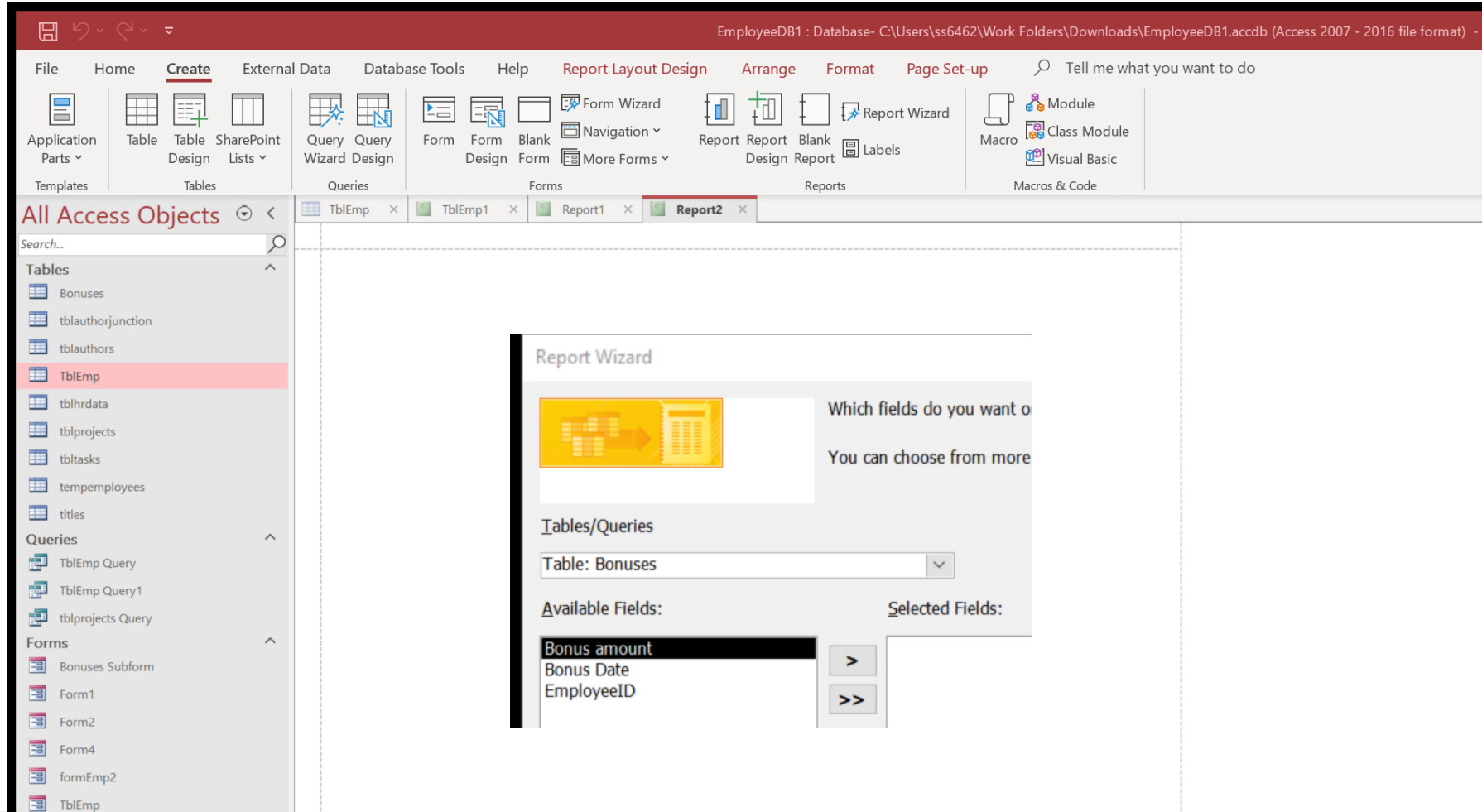
Step 2: Choose a report tool

The report tools are located on the **Create** tab of the ribbon, in the **Reports** group.



Step 2: Choose a report tool

The report tools are located on the **Create** tab of the ribbon, in the **Reports** group-Report Wizard.



Step 3: Create the report

The screenshot shows the Microsoft Access interface with the 'Create' tab selected. The 'All Access Objects' pane on the left lists various objects, with 'TblEmp' highlighted. The main window displays a data table with the following columns: EmpID, Fname, Lname, ADDRESS, city, country, postalcode, phone, phonetype, salary, and hiredate. The data rows are as follows:

EmpID	Fname	Lname	ADDRESS	city	country	postalcode	phone	phonetype	salary	hiredate
1	sam	peter	123,oxford str	swansea	wales	sa11fg	073456879	mobile	2002	24/11/
2	ashley	williams	100,main stre	cardiff	wales	c12wer	067432456	landline	2500	25/11/
3	peter	williams	cross street	swansea	wales	sa12er	038756435	landline	300	26/11/
4	(New					br13ty	063463753	mobile	1000	26/11/
									0	

The 'Report Wizard' dialog box is open, asking 'Which fields do you want o' and 'You can choose from more'. It shows the 'Table: TblEmp' selected. The 'Available Fields' list includes city, country, postalcode, and phone. The 'Selected Fields' list includes EmpID, Fname, Lname, and salary.

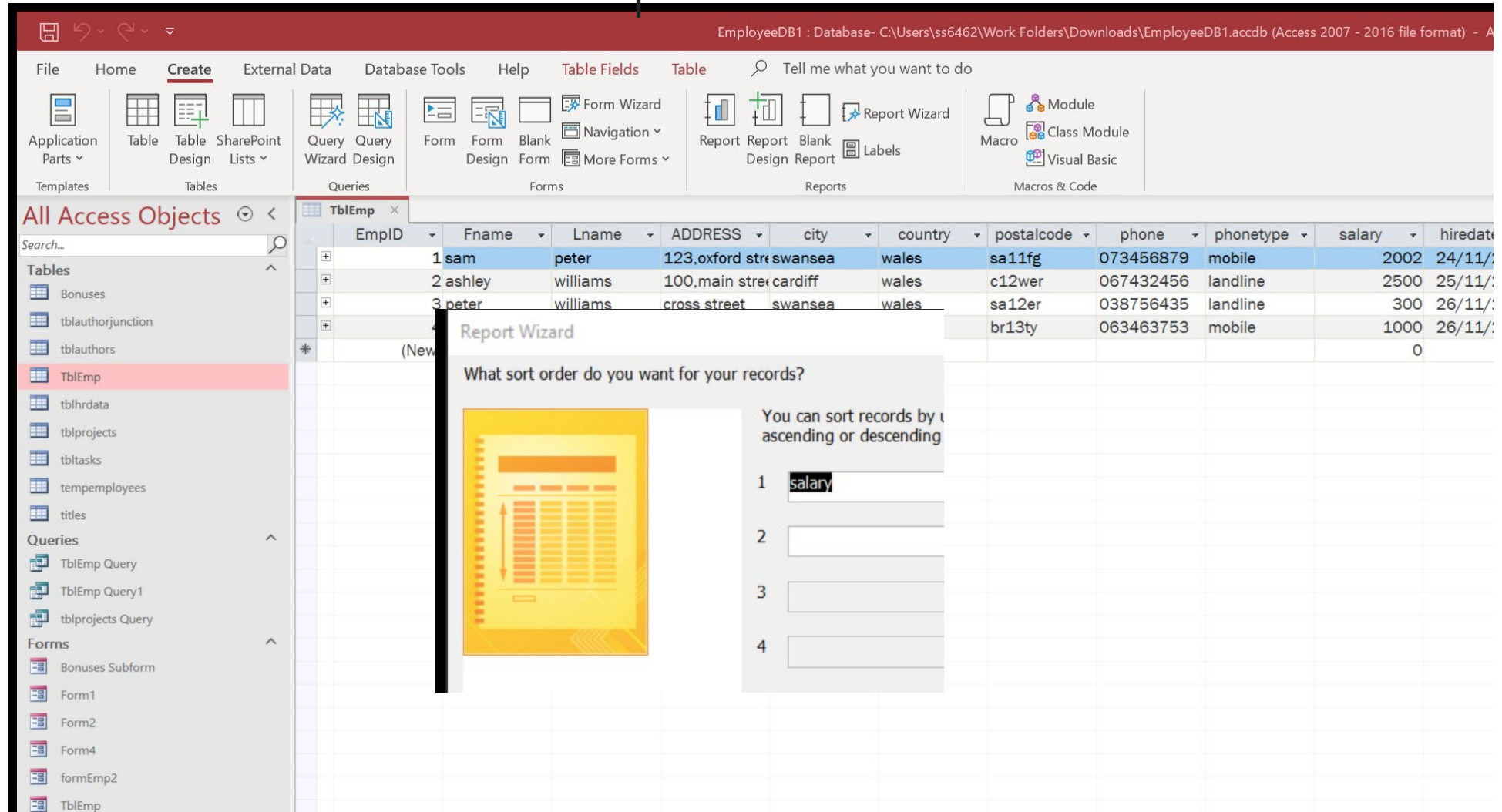
Step 3: Create the report

The screenshot shows the Microsoft Access interface for a database named 'EmployeeDB1'. The 'Create' tab is active in the ribbon, and the 'Report Wizard' is open. The 'All Access Objects' pane on the left shows the 'TblEmp' table selected. The main window displays a table view of the 'TblEmp' table with the following data:

EmpID	Fname	Lname	ADDRESS	city	country	postalcode	phone	phonetype	salary	hiredate
1	sam	peter	123,oxford str	swansea	wales	sa11fg	073456879	mobile	2002	24/11/
2	ashley	williams	100,main stre	cardiff	wales	c12wer	067432456	landline	2500	25/11/
3	peter	williams	cross street	swansea	wales	sa12er	038756435	landline	300	26/11/
4	(New)					br13ty	063463753	mobile	1000	26/11/
									0	

The 'Report Wizard' dialog box is open, asking 'Do you want to add any grouping levels?'. The 'EmpID, Fname, Lnam' fields are selected for grouping. The 'Performance rating' field is selected for the report. The 'Priority' button is visible.

Step 3: Create the report



EmployeeDB1 : Database- C:\Users\ss6462\Work Folders\Downloads\EmployeeDB1.accdb (Access 2007 - 2016 file format) - A

File Home Create External Data Database Tools Help Table Fields Table Tell me what you want to do

Application Parts Table Table Design SharePoint Lists Query Wizard Query Design Form Form Design Blank Form Navigation More Forms Report Wizard Report Design Blank Report Labels Macro Module Class Module Visual Basic Macros & Code

All Access Objects

Search...

Tables

- Bonuses
- tblauthorjunction
- tblauthors
- TblEmp**
- tblhrdata
- tblprojects
- tbltasks
- tempemployees
- titles

Queries

- TblEmp Query
- TblEmp Query1
- tblprojects Query

Forms

- Bonuses Subform
- Form1
- Form2
- Form4
- formEmp2
- TblEmp

TblEmp

EmpID	Fname	Lname	ADDRESS	city	country	postalcode	phone	phonetype	salary	hiredate
1	sam	peter	123,oxford str	swansea	wales	sa11fg	073456879	mobile	2002	24/11/
2	ashley	williams	100,main stre	cardiff	wales	c12wer	067432456	landline	2500	25/11/
3	peter	williams	cross street	swansea	wales	sa12er	038756435	landline	300	26/11/
4	(New)					br13ty	063463753	mobile	1000	26/11/
									0	

Report Wizard

What sort order do you want for your records?

You can sort records by ascending or descending

- 1 salary
- 2
- 3
- 4

Step 3: Create the report

The screenshot shows the Microsoft Access interface with the 'Create' tab selected. The ribbon includes options for Application Parts, Tables, Queries, Forms, Reports, and Macros & Code. The 'All Access Objects' pane on the left shows a list of tables, queries, and forms. The 'TblEmp' table is selected, and its data is displayed in a grid. The 'Report Wizard' dialog box is open, asking 'How would you like to lay out your report?'. The 'Layout' section has three radio buttons: 'Columnar', 'Tabular' (which is selected), and 'Justified'.

EmpID	Fname	Lname	ADDRESS	city	country	postalcode	phone	phonetype	salary	hiredate
1	sam	peter	123,oxford str	swansea	wales	sa11fg	073456879	mobile	2002	24/11/
2	ashley	williams	100,main stre	cardiff	wales	c12wer	067432456	landline	2500	25/11/
3	peter	williams	cross street	swansea	wales	sa12er	038756435	landline	300	26/11/
4						br13ty	063463753	mobile	1000	26/11/
									0	

Step 3: Create the report

The screenshot shows the Microsoft Access interface for a database named 'EmployeeDB1'. The 'Table Fields' ribbon is active, and the 'Table' tab is selected. The 'All Access Objects' pane on the left shows the 'TblEmp' table selected. The 'Table' view of 'TblEmp' is displayed, showing columns: EmpID, FName, Lname, ADDRESS, city, country, postalcode, phone, phonetype, salary, and hiredate. The data includes three employees: sam peter, ashley williams, and peter williams. A 'Report Wizard' dialog box is open, asking for a title for the report. The title 'TblEmp1' is entered. The dialog also asks if the user wants to preview the report design, with 'Preview the report' selected.

EmpID	FName	Lname	ADDRESS	city	country	postalcode	phone	phonetype	salary	hiredate
1	sam	peter	123,oxford str	swansea	wales	sa11fg	073456879	mobile	2002	24/11/
2	ashley	williams	100,main stre	cardiff	wales	c12wer	067432456	landline	2500	25/11/
3	peter	williams	cross street	swansea	wales	sa12er	038756435	landline	300	26/11/
4						br13ty	063463753	mobile	1000	26/11/
									0	

Step 3: Create the report

EmployeeDB1 : Database- C:\Users\ss6462\Work Folders\Downloads\EmployeeDB1.accdb (Access 2007 - 2016 file format) - A

File **Print Preview** Tell me what you want to do

Print Size Margins Show Margins Print Data Only Portrait Landscape Columns Page Set-up Zoom One Page Two Pages More Pages Refresh All Excel Text File PDF or XPS Email More Close Print Preview Close Preview

All Access Objects

Search...

Tables

- Bonuses
- tblauthorjunction
- tblauthors
- TblEmp**
- tblhrdata
- tblprojects
- tbltasks
- tempemployees
- titles

Queries

- TblEmp Query
- TblEmp Query1
- tblprojects Query

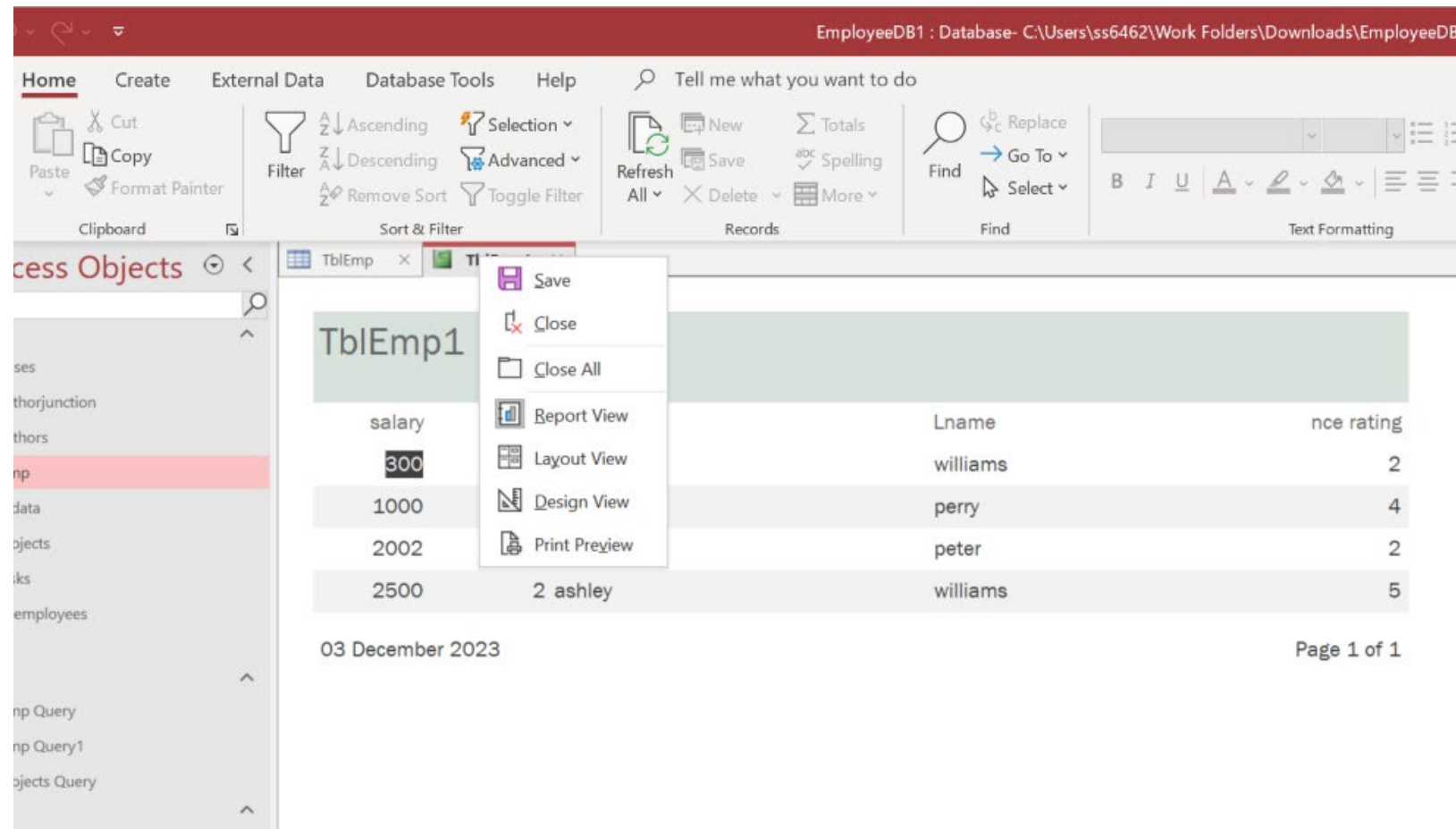
Forms

- Bonuses Subform
- Form1
- Form2
- Form4
- formEmp2
- TblEmp

TblEmp1

salary	EmpID	Fname	Lname	nce rating
300	3	peter	williams	2
1000	4	ash	perry	4
2002	1	sam	peter	2
2500	2	ashley	williams	5

Highlight data with conditional formatting



Right-click the report in the Navigation Pane and click **Layout View** for conditional formatting

salary

Franklin Gothic Book (Det 11

Background Image
 Alternative Row Colour

Quick Styles
 Change Shape
 Conditional Formatting
 Shape Fill
 Shape Outline
 Shape Effects

Select All

B *I* U A

%

Selection

Font

Number

Background

Control Formatting

All Access Objects

Search...

Tables

- Bonuses
- tblauthorjunction
- tblauthors
- TblEmp**
- tblhrdata
- tblprojects
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- titles

Queries

- TblEmp Query
- TblEmp Query1
- tblprojects Query

Forms

- Bonuses Subform
- Form1
- Form2
- Form4
- formEmp2
- TblEmp

TblEmp1				
salary	EmpID	Fname	Lname	nce rating
300	3	peter		2
1000	4	ash		4
2002	1	sam		2
2500	2	ashley		5
03 December 2023				

Conditional Formatting Rules Manager

Show formatting rules for: salary

New Rule
 Edit Rule
 Delete Rule

Rule (applied in order shown)

Highlight data with conditional formatting

EmployeeDB1 : Database- C:\Users\ss6462\Work Folders\Downloads\EmployeeDB1.accdb (Access 2007 - 2016 file format) - A

File Home Create External Data Database Tools Help Report Layout Design Arrange **Format** Page Set-up Tell me what you want to do

salary Franklin Gothic Book (Det 11 Select All B I U A % , .00 .00 Background Image Alternative Row Colour Quick Change Conditional Shape Fill Shape Outline Shape Effects Styles Shape Formatting Shape Effects

All Access Objects Search... Tables Bonuses tblauthorjunction tblauthors **TblEmp** tblhrdata tblprojects tbltasks tempemployees titles Queries TblEmp Query TblEmp Query1 tblprojects Query Forms Bonuses Subform Form1 Form2 Form4 formEmp2 TblEmp

TblEmp1

salary	nce rating
300	2
1000	4
2002	2
2500	5

03 December 2

Page 1 of 1

New Formatting Rule

Select a rule type:

Check values in the current record or use an expression
Compare to other records

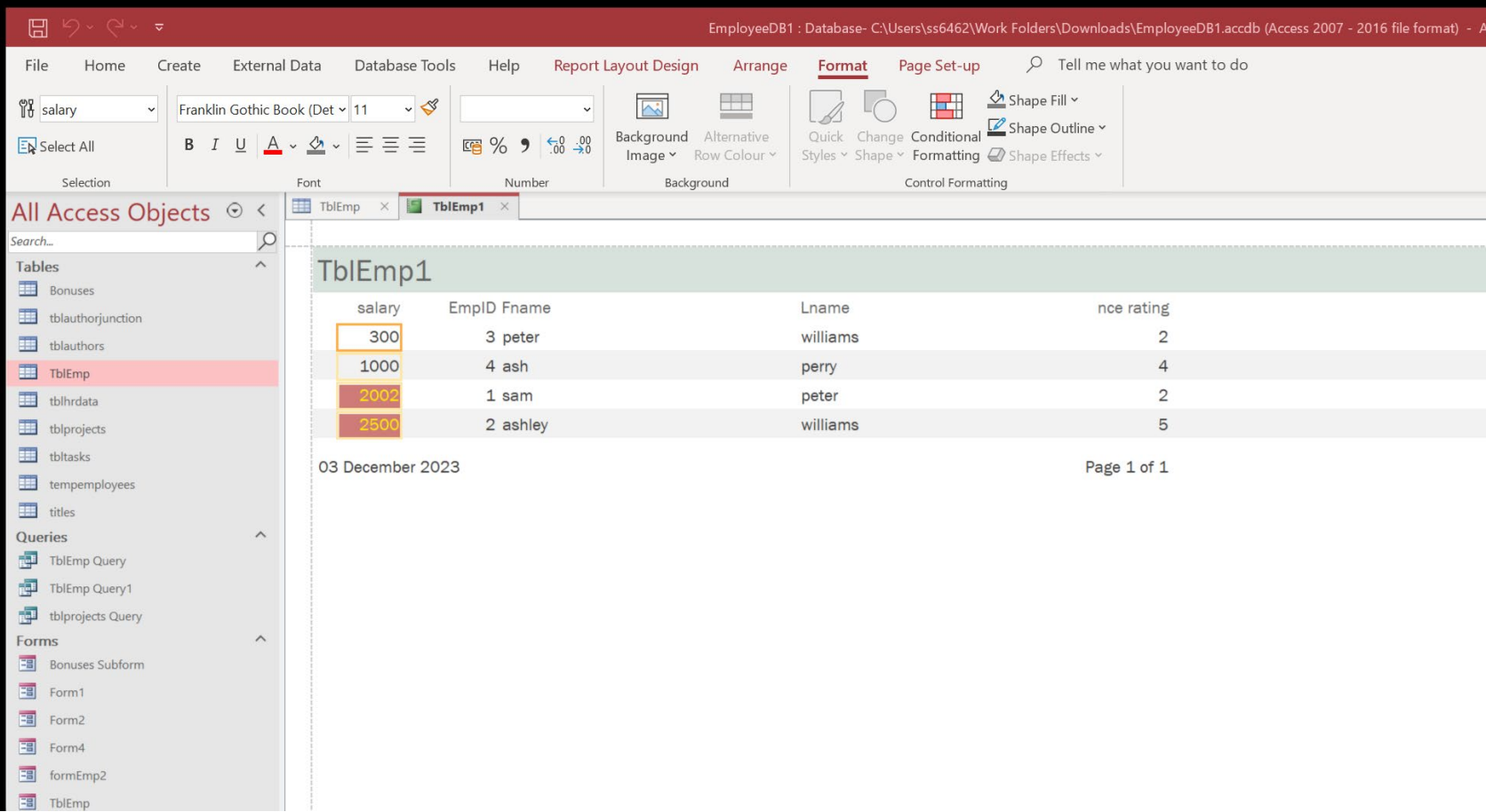
Edit the rule description:

Format only cells where the:

Field Value Is greater than 1000

Preview: AaBbCcYyZz B I U A

Highlight data with conditional formatting

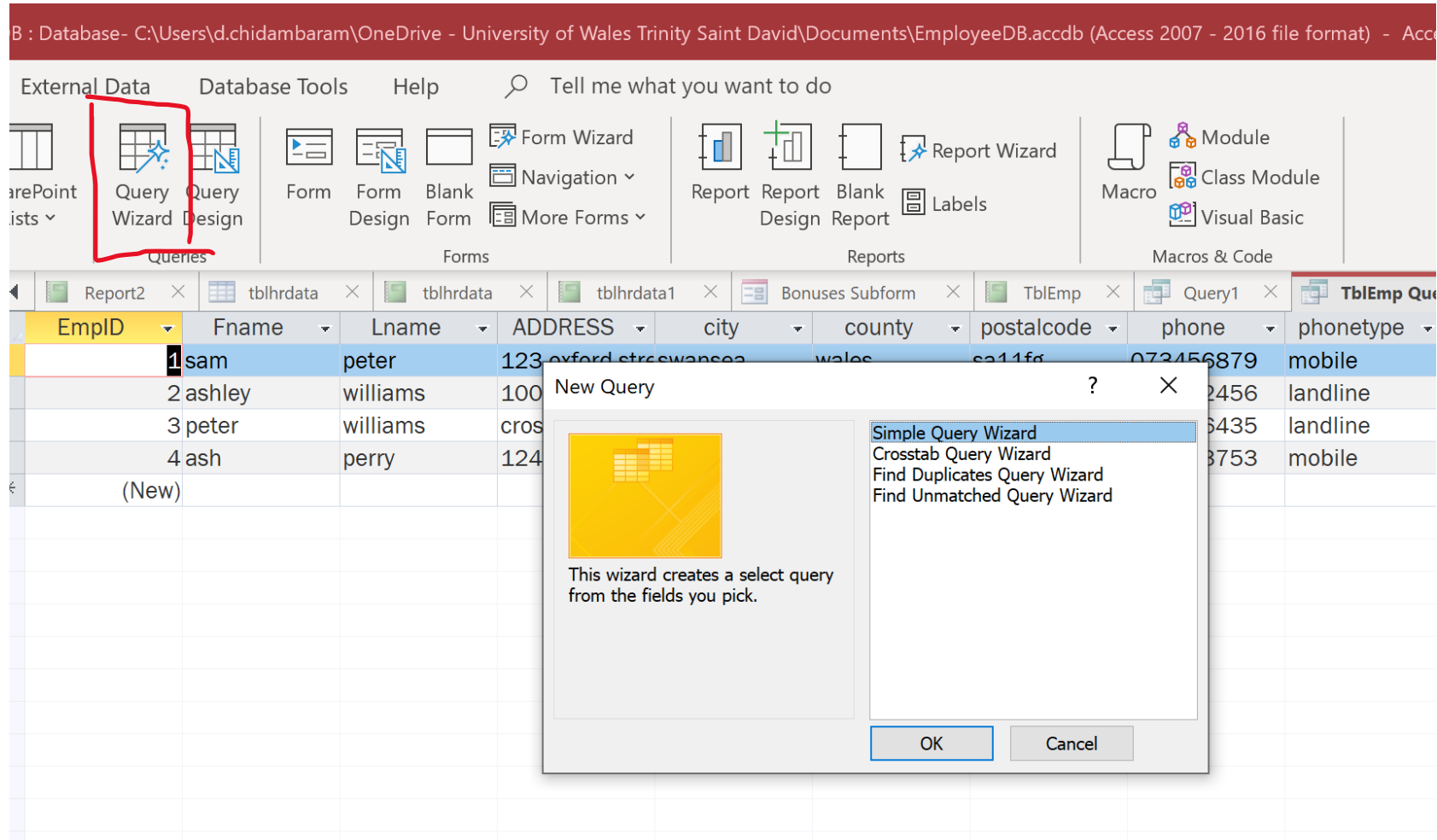


The screenshot shows the Microsoft Access interface with the 'Format' ribbon selected. The 'All Access Objects' pane on the left lists various tables and queries, with 'TblEmp' highlighted. The main window displays the 'TblEmp1' table with the following data:

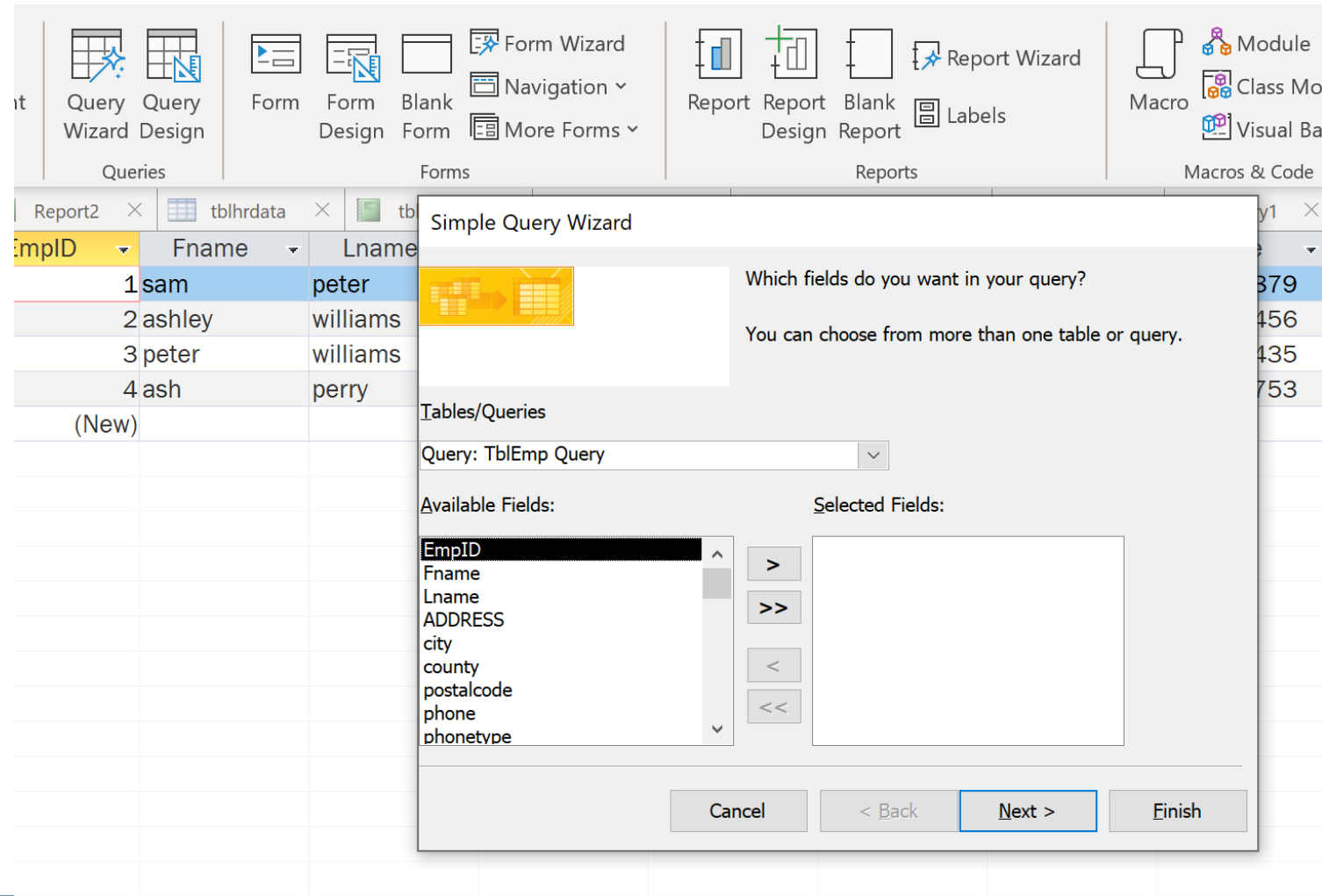
salary	EmpID	Fname	Lname	nce rating
300	3	peter	williams	2
1000	4	ash	perry	4
2002	1	sam	peter	2
2500	2	ashley	williams	5

The 'salary' column is highlighted with a yellow background for the values 300, 1000, 2002, and 2500. The date '03 December 2023' and 'Page 1 of 1' are displayed at the bottom of the table view.

Query Design



Choose the fields for the Query Wizard



File **Home** Create External Data Database Tools Help Tell me what you want to do

View Paste Cut Copy Format Painter Filter Ascending Descending Remove Sort Selection Advanced Toggle Filter Refresh Save Delete More Find Replace Go To Select

Views Clipboard Sort & Filter Records Find

All Access ...

Search...

- tblauthorjunction
- tblauthors
- TblEmp
- tblhrdata
- tblprojects

tblhrdata	tblhrdata1	Bonuses Subform	TblEmp	Query1
EmpID	Fname	Lname	ADDRESS	city
1	sam	peter	123,oxford street	swansea
3	peter	williams	cross street	swansea
(New)				

Activity: Creating a Query

1. Create a new query named "HighPerformers" to find employees with a performance rating greater than 3.
2. Include the following fields in the query result:
 1. EmpID
 2. Fname
 3. Lname
 4. Titles
 5. Performance

Activity : Designing a Report

1. Create a new report named "EmployeeReport" based on the EmployeeData table.
2. Include the following fields in the report:

EmpID	phone
Fname	phonetype
Lname	salary
ADDRESS	hiredate
city	Empcode
Country	Titles
postalcode	Performance

Activity: Adding Grouping and Sorting in Report

1. Group the report by the "Titles" field to show employees grouped by their job titles.
2. Sort the report by the "Performance" field in descending order within each group.

Activity: Calculated Fields in Report

1. Add a calculated field in the report to calculate the total salary for each employee.
2. Display the calculated field in the report.

Activity: Formatting and Styling Report

1. Apply appropriate formatting to enhance the visual appeal of the report.
2. Experiment with different font styles, colors, and alignment.

Activity : Adding Subtotals

1. Open the "EmployeeReport" in Design View.
Add a group header for the "Titles" field.
In the group header, add a calculated field to display the subtotal of the "salary" for each job title group.

Activity: Conditional Formatting

- Open the "EmployeeReport" in Design View.
Apply conditional formatting to the "Performance" field to highlight high performers (e.g., Performance greater than 3) with a different background color or font style.

Activity: Adding Page Numbers

- Open the "EmployeeReport" in Design View.
Add a page number control to the report footer to display the current page number and total pages.

Activity: Using Expressions

- Open the "EmployeeReport" in Design View.
Create a calculated field that concatenates the "Fname" and "Lname" fields to display the full name of each employee.

Activity: Grouping by Year in Hire Date

- Open the "EmployeeReport" in Design View.
Group the report by the year of the "hiredate" field to show a summary of new hires each year.

Activity: Exporting to PDF

Open the "EmployeeReport."

Use the "Export" feature to save the report as a PDF file. Explore different PDF options, such as setting security settings or including/excluding certain elements.

- Next Session
 - Assignment discussion
 - Recap