

Assignment Number:	INN210.6
Assignment Name:	Access Assignment – Part C
Weighting:	6%
Due Date:	Friday, 30 October 2016 Rather than leaving it to the last minute, you are strongly encouraged to start working on this assignment at a much earlier stage. The relevant material on Microsoft Access is covered in Lectures 7 through 10, and in the related Practicals.
Items to be Submitted:	AccessAssign162_Oly2012.accdb – <i>You must upload this specific file.</i> DO NOT put your database inside a zip file, or inside any other kind of file. If you ignore this requirement, you will receive zero. Make sure that Microsoft Access is CLOSED when you upload your database to Blackboard. Otherwise, your database will very likely be uploaded in a corrupted state. If your uploaded database is corrupted, then you will very likely receive a lower mark.
How to be Submitted:	The assignment must be submitted using Blackboard.

Introduction to Part C

Overview

In this part of the assignment, you are to improve the functionality and appearance of the **MedalWinners** report that you created in Tasks 4 & 5 of **Part A**. That report illustrates both the *strengths and weaknesses* of the **Report Wizard**: it does a lot of the heavy-lifting work for you by automatically putting all the fields on the report – otherwise you would have to do the work of *creating each of them by hand, one at a time* – but the overall visual appearance is *quite rough*. Here, you will improve things.

Like **Part B**, this Part is *more challenging* than **Part A**, because it requires you to do more than just using the **Report Wizard**. However, it is *not harder* than **Part B**. To create the required report, you must add some more fields and directly manipulate the properties of the report – see Lectures 9 & 10.

Key Approach

As stated in **Part A**, when implementing a report, it is important get it working properly *first*, and *then* fix up the appearance.

Do's and Don'ts

See **Part A** of the Access Assignment.

The Database

So that you have a single database which contains all your Access assignment work, use the **AccessAssign162_Oly2012.accdb** database that you completed for **Part B**. However, there is nothing in this Part that depends on **Part B**, so you can use your database from **Part A**, if you have a good reason (e.g. you haven't attempted **Part B**).

In any case, make sure that you *take a safe copy first*, in case you accidentally destroy something. One way to do this is by using **Windows Explorer** to copy your database, and then rename the copy to something like **AccessAssign162_Oly2012_PartB.accdb**. *Don't do this when Access is open.*

(If for some reason, you have not yet done assignment **Part A**, then you must do at least Tasks 1, 4, and 5 in that part, before continuing here.)

Creating an “Advanced” Copy of Your Report

To avoid confusion with the report you created in **Part A**, start by making a copy of that report, as follows.

1. Open the **AccessAssign162_Oly2012.accdb** database that you completed for **Part B** (or **Part A**, if you haven't attempted **Part B**).

2. Use copy-and-paste to create a **MedalWinners Advanced** copy of your report, as follows. In the Navigation Pane, right-click on your **MedalWinners** report and then select **Copy**. Right-click again and select **Paste**. When the **Paste As** dialog box appears, change the name to be **MedalWinners Advanced**, instead of **Copy Of MedalWinners**, and then click **OK**.

By the way, it's safe to use copy-and-paste here because your report is a single object, unlike in **Part B** where your form was really two objects: a main form and a subform. That's why **Part B** used a special procedure.

You *must* use this **Advanced** version, for the rest of this assignment.

Task 9 (The tasks in this Part continue on from those in **Part B**, and are numbered accordingly.)

In this task, you are to modify your **MedalWinners Advanced** report, to make it better visually – see **Figure 9.1** on a following page.

Main requirements for the report:

1. The title of the report, **London Olympics: Medal Winners – Swimming**, is now slightly different and is in the middle of the line (approximately).

This is followed by the Page Header in which the contents of the data columns are labelled. Note that most of these labels are also *slightly different* to those from **Part A**.

[Hint: you should change the **Caption** property of each of the column labels, to make them match the report as shown, e.g. the caption **SumOfGold** becomes **Gold Medals**. But you *should not change the names of each label and its corresponding textbox*. E.g. the *names* of the controls, **SumOfGold_Label** and **SumOfGold**, *should not* be changed.]

2. The columns in the report have been repositioned. The precise positions are unimportant, but leave some space of the right-hand side (for later use), as shown in **Figure 9.1**.
3. As in **Part A**, there is a row of totals is displayed for each country. But this now has a better format. E.g. see the report-line that starts with **Total for Australia**, in **Figure 9.1**.

Note that this is referred to as the **Country Total** row, in the following.

[Hint 1: To make each **Country Total** row, and the **Grand Total** row, stand-out visually, set the **Font Weight** property to **Bold**, for each of the textboxes that are in this row.]

[Hint 2: Each **Text Box** has a **Border Style** property. What does it do?]

4. For each medal-winner, the number of gold, silver and bronze medals won is displayed, as in **Part A**. But now, when the number is zero, *a blank space is shown instead*.

Note that each **Country Total** row, and the **Grand Total** row, still displays zeros, not blanks.

[Hint: use the **Text Box's Format** property to affect how the number of medals is displayed.. To get help on this property, do the following.

- In **Design View**, select the **SumOfGold Text Box**, then open its **Property Sheet** and click on the **All** tab. Then click in the **Format** property, and then press the **F1** key (the Help key).
- Access's Help window should open, and one of its suggestions should be **TextBox.Format Property**.
- Click on that, and then click on the **Number and Currency Data Types**. Read the section on **Custom Formats**.]

While a **Custom Format** can have up to four sections – separated by semicolons(;) – only a single section is needed in this particular case. In fact, only a single section containing a single character is needed here, i.e. no semicolons. If you use the **PAT add-in** to check your answer, it expects you to have only a single character.

End-of-hint.]

5. The Report Wizard will have created Text Box *names* for your **Country Total** row totals, such as **SumOfGold Country Total**, **SumOfSilver Country Total**, etc. In preparation for Task 10, change these to the following, simpler names: **TotalGold**, **TotalSilver**, and **TotalBronze**. (Do not use spaces in these names.)
6. Similarly, the Report Wizard will have created Text Box *names* for your **Grand Total row**, such as **SumOfGold Grand Total**, **SumOfSilver Grand Total**, etc. In preparation for Task 10, change these to the following, simpler names: **GrandTotalGold**, **GrandTotalSilver**, and **GrandTotalBronze**. (Do not use spaces in these names.)

Specific Hints and Warnings for this Task:

- (a) The same **Specific Hints and Warnings** given for Task 5 (in **Part A**) apply here, but that shouldn't affect you here, as long as your original report conformed to them. Remember that subreports are not permitted.
- (b) The **Report Wizard** sets the **Alternate Back Color** property for each of these three sections: the **CountryName Group Header**, the **CountryName Group Footer**, and the **Detail**. That doesn't work very well for this kind of report, so set that property to **No Color**, in each case.
- (c) You should *delete* any labels that the **Report Wizard** created in **Part A** but are not required here, rather than just hiding them.
- (d) For the text at the start of the **Country Total** row – such as “Total for Australia” – *use a single Text Box for the entire text message*. I.e. *don't* use a label for the “Total for” part, and a textbox for the country-name part, such as “Australia”. As in **Part B**, remember that you can use an ampersand (&) to do string concatenation. The code automatically generated by the **Report Wizard** (in **Part A**) is a good example of this.

Warning: if for some strange reason, you create your own Text Box – rather than re-using the one that the **Report Wizard** created – *do not* use “CountryName” as *the name* of this Text Box. While “CountryName” *can be used as part of* the **Control Source** value, it *must not* be used for the **Name**. Using the same name can result in a warning icon appearing next to your Text Box (in **Design View**) with the associated tool-tip, **This control has a reference to itself**, and **Circular Reference** appearing in the icon's drop-down list. In Access 2010, a *bound control* can have the same name as the column/field it is bound to (that is what normally happens), but when you create a *calculated control*, its name must be different to any column/field names that are part of its **Control Source** expression.

- (e) While you do not have to place each control in *exactly* the same position as shown in the figure, you should make the appearance of your report close to that shown. Being able to follow a specification is an indication of your ability to communicate effectively with others in professional life. In addition, it will assist the marking of your assignment. For example, using *drastically different fonts* etc can influence the look of your report, (and make it harder to mark). However, you are encouraged to try out your report (and other work) by modifying the data in the database, e.g. adding new rows, changing existing rows etc.

The following screen-snapshot shows the report in **Print Preview** mode. Using different fonts, etc., can influence the layout and number of pages in the report. Also, changing the rows in your copy of the database may make the data on your report differ from that shown here.

Figure 9.1: An Improved Report

London Olympics: Medal Winners - Swimming					
Country	Family Name	Given Name	Gold Medals	Silver Medals	Bronze Medals
Australia	Barratt	Bronte			1
	Coutts	Alicia		1	1
	Magnussen	James		1	
	Seeböhm	Emily		1	
	Sprenger	Christian		1	
	Total for Australia		0	4	2
Belarus	Herasimenia	Aliaksandra		2	
	Total for Belarus		0	2	0
Brazil	Cielo	Cesar			1
	Pereira	Thiago		1	
	Total for Brazil		0	1	1
Canada	Cochrane	Ryan		1	
	Hayden	Brent			1
	Total for Canada		0	1	1
France	Agnel	Yannick	1		
	Manaudou	Florent	1		
	Muffat	Camille	1	1	
	Total for France		3	1	0

Only the top-part of the first page is shown here, to reduce the size of the above figure. I.e., the **Page Footer** is not shown above. It is unchanged from that shown in **Part A**. You must still include the **Page Footer** in your assignment.

Task 10

In this final task, you are asked to improve the report by providing extra totals, beyond those that the **Report Wizard** has been able to provide – see the right-hand side of **Figures 10.1** and **10.2**, on the next pages.

Additional requirements for the report:

1. Add a new **Total Medals** column heading – see top right-hand corner of **Figure 10.1**.
2. In the **Country Total** row, add an additional **Total Medals** Text Box – see **Figure 10.1**.
Use **TotalMedals** for the *name* of this new calculated control.
3. Do similarly for the **Grand Total** row at the end of the entire report – see **Figure 10.2**.
Use **GrandTotalMedals** for the *name* of this new calculated control.

Specific Hints and Warnings for this Task:

- (a) The same **Specific Hints and Warnings** given for Task 9 (and for Task 5 in **Part A**) apply here.
- (b) **Very important:** the **TotalMedals** and **GrandTotalMedals** values must be calculated by the Text Boxes in your report, and not by your database query. *Do not change your query from Part A.*
- (c) Do *not* use the **sum** function in either the **TotalMedals** or **GrandTotalMedals** controls. But, arithmetic operators (+, -, *, /) are allowed.
- (d) Your **Grand Total** row must *not* refer to any of the controls in the **Country Total** row. That is, your **Grand Total** row must still work correctly, even if the **Country Total** row was deleted from the report.
- (e) As before, *all values* in the **Country Total** row and the **Grand Total** row must be displayed in **Bold** format, without boxes around them.
- (f) If you need to, you can force numeric values to be right-justified – i.e. aligned with the right-hand margin of a Text Box – by setting its **Format** property to **General Number**.
- (g) You need to make sure that your report does not allow the possibility of a country's name appearing at the *bottom of one page* with their first competitor appearing *on the next page*. Step 6 on textbook page 383 shows how to prevent this problem.

As before, the following screen-snapshots show the report in **Print Preview** mode. Using different fonts, etc., can influence the layout and number of pages in the report. Also, changing the rows in your copy of the database may make the data on your report differ from that shown here.

Figure 10.1: showing the Total Medals column

London Olympics: Medal Winners - Swimming						
Country	Family Name	Given Name	Gold Medals	Silver Medals	Bronze Medals	Total Medals
Australia	Barratt	Bronte			1	
	Coutts	Alicia		1	1	
	Magnussen	James		1		
	Seeböhm	Emily		1		
	Sprenger	Christian		1		
	Total for Australia		0	4	2	6
Belarus	Herasimenia	Aliaksandra		2		
	Total for Belarus		0	2	0	2
Brazil	Cielo	Cesar			1	
	Pereira	Thiago		1		
	Total for Brazil		0	1	1	2
Canada	Cochrane	Ryan		1		
	Hayden	Brent			1	
	Total for Canada		0	1	1	2

Figure 10.2: showing the Grand Total row

Country	Family Name	Given Name	Gold Medals	Silver Medals	Bronze Medals	Total Medals
	Total for United States of America		12	7	5	24
Grand Total			26	28	24	78

As before, only the top-part of each page is shown here, to reduce the size. You must still include the **Page Footer** in your assignment.

As you can see above, in **Figure 10.2**, the **Total for United States of America**, and the **Grand Total** happened to fall near the top of a page, in this particular screenshot. That is not required! The positions of such totals will vary, according to the size you use for your Detail section, etc. That is, it is fine if your **Grand Total** *appears at any vertical position* on a page.

Reminders: before submitting your assignment:

- (a) Check that you have met all the requirements under the **Do's and Don'ts** listed in **Part A**, and under *each Specific Hints and Warnings for this Task* section above. You don't want to lose marks for things that you think are unimportant, but the marker views differently.

In particular, just because your answer "looks right" on the screen does *not* mean you will get full marks. As a simple example, if you use the wrong name for your report, then you will lose marks.

- (b) Remember to use the **PAT Add-in** to check whether your assignment is correct or not.
- (c) Remember to use **Compact and Repair** just before you submit your database to Blackboard, so that your database is smaller and uploads more quickly. (Click the **File** tab in the Ribbon, make sure that the **Info** tab is selected and then click **Compact & Repair Database**.)

Distribution of Marks

Report Name and Record Source	0.20%
Report/Page Headers and Footers - where required (excluding totalling)	1.00%
Report Group section – visual appearance / controls / data (excluding totalling)	0.70%
Details section – visual appearance / controls / data	1.00%
Country Total	1.60%
Grand Total	1.50%
Total Marks	6.00%

The marks here are allocated to the various components of the completed report, rather than on a task-by-task basis. Part marks will be given for a partly correct solution.

Marks are given for the work required in this Part of the assignment. That is, work that was (or should have been) previously completed in **Part A** will not be rewarded here (again).

A late penalty will be deducted for late assignments, in accord with Faculty policy.