Utilizing Microsoft Access Forms and Reports The 2014 SAIR Conference – Workshop #3 October 4th, 2014

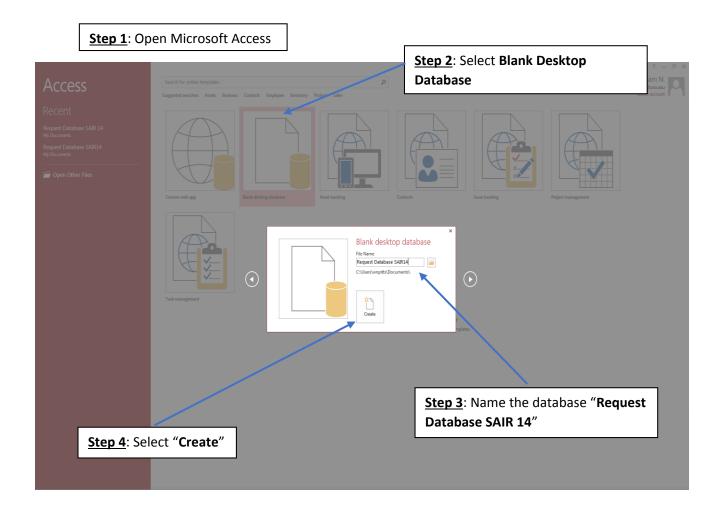


Presented by:

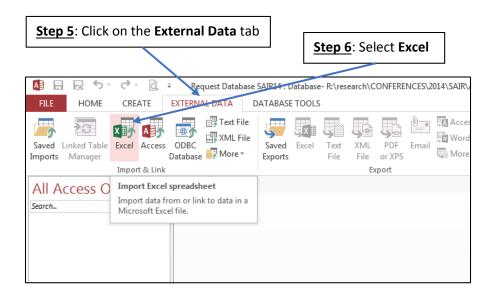
Nathan Pitts (Sr. Research Analyst – The University of North Alabama)

Molly Vaughn (Associate Director of OIRPA – The University of North Alabama)

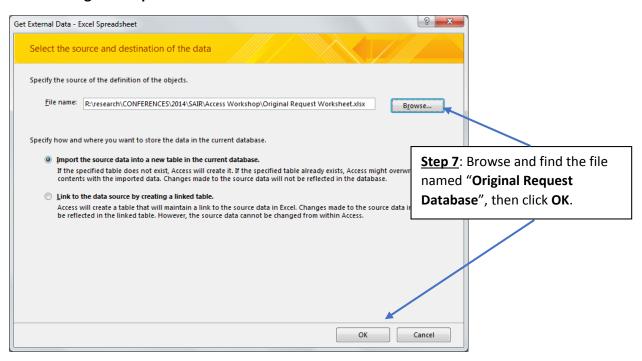
This workshop is designed to give an example of how to utilize Microsoft Access to create a Form that inputs data requests into a table. The workshop will also give a few examples of how to create reports that display selected information within a data request table. We will begin by importing a dummy set of data that we will use as our current request database.



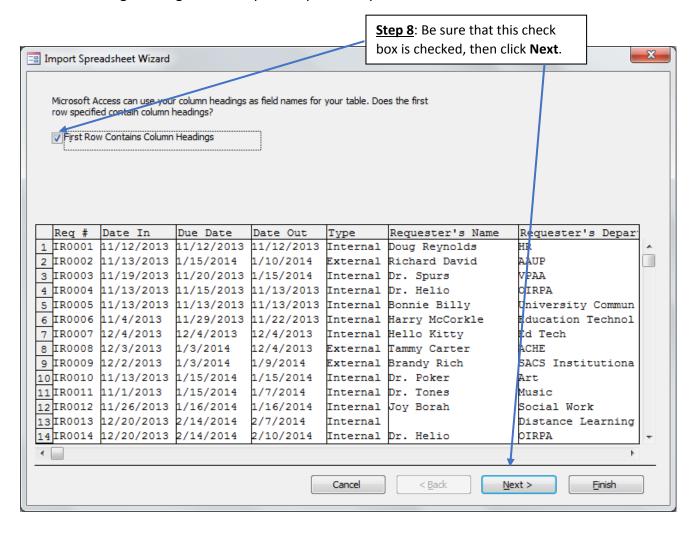
- A new database will be created.
- We will need to import an existing set of data that will serve as our data request log.



• This will bring up a window for you to browse and find your Excel spreadsheet, containing our request log. This document should be **saved** on your desktop and named "**Original Request Database**".

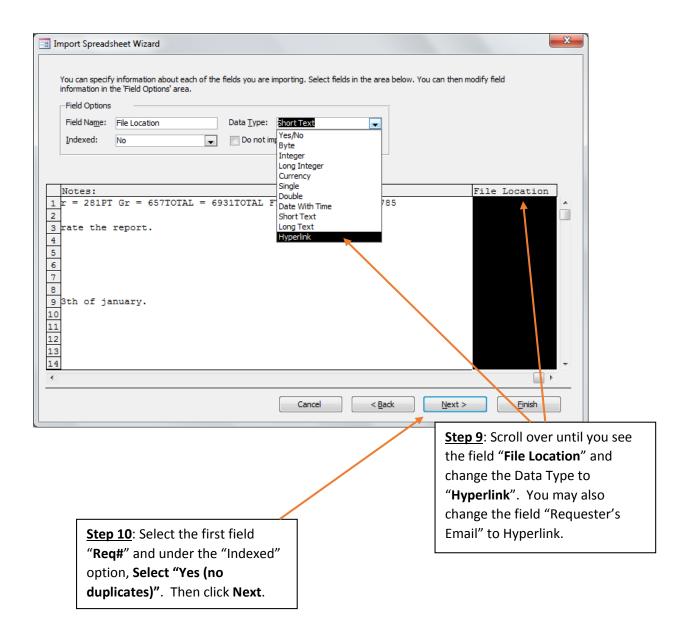


• We will go through a few steps to import the spreadsheet.

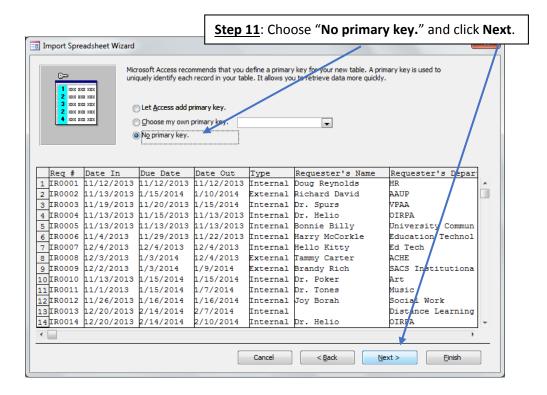


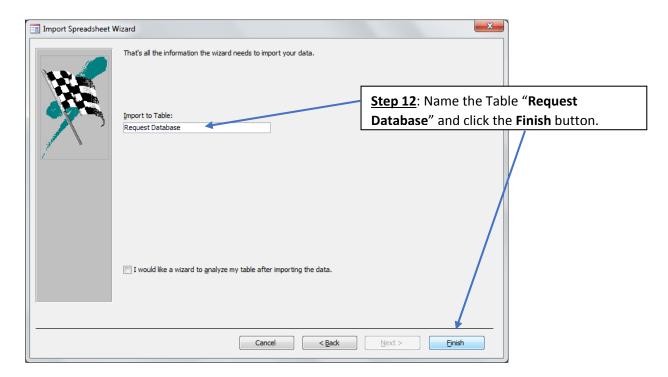
- This step translates the first row of our spreadsheet into Column headers.
- If you are importing a spreadsheet into Access, it is important to ensure that you do not have more than one row of column headers.

• The window below allows us to specify the data type for each field in our dataset, once we import them into access as a table. We will need to change 2 fields' data types.



- We want to index the field "Req#" because that field will be our unique identifier. Also, we do not want any duplicates for this field, for obvious reasons.
- We chose to change the field "File Location" to a hyperlink, because we will link our final report for each request (if possible) from where it is stored on our computer or shared drive to the database.

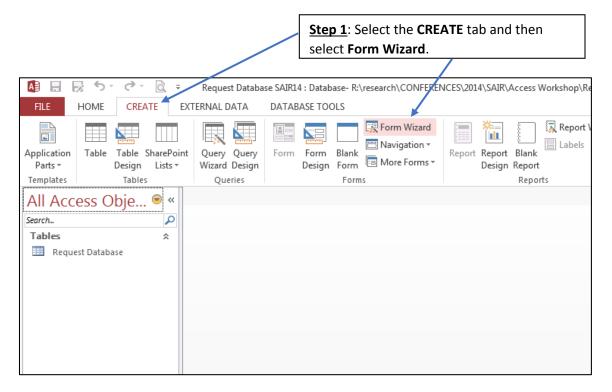




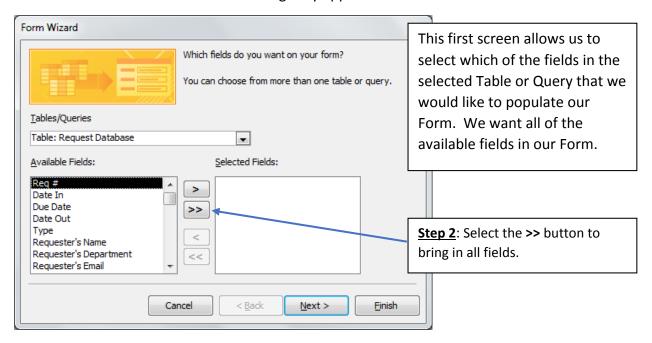
Our dataset should now be imported and ready to use.

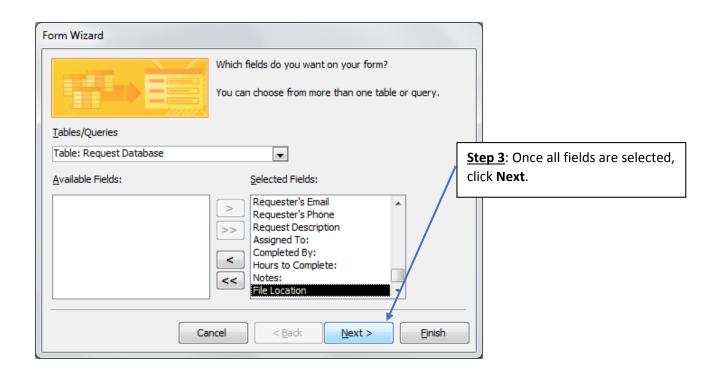
Creating a Form to Enter New Data Requests

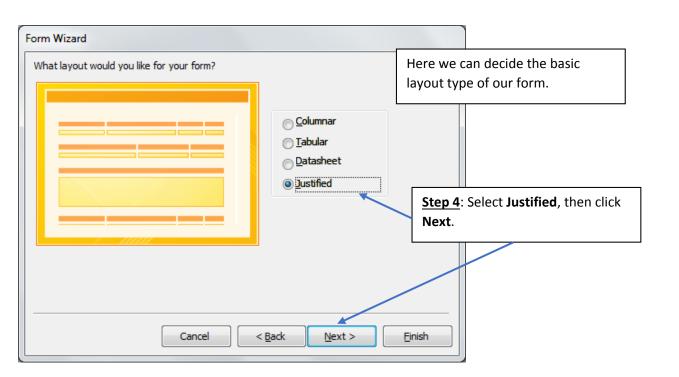
- We need to create a form that will allow us to enter new data requests and edit information regarding all data requests as they are updated and completed.
- We will utilize the Form Wizard to create a Request Database Form.

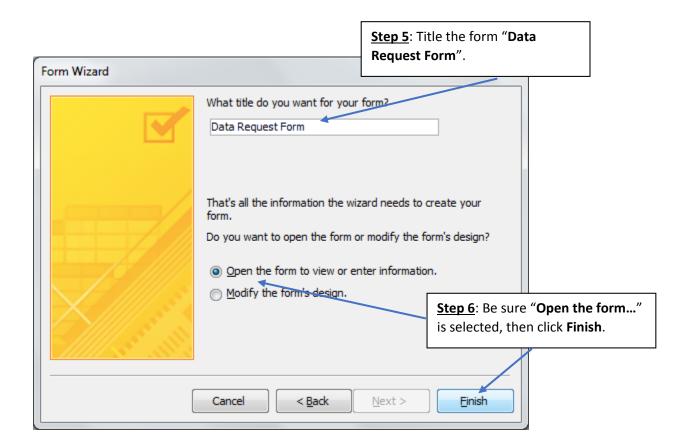


• The Form Wizard window will magically appear.

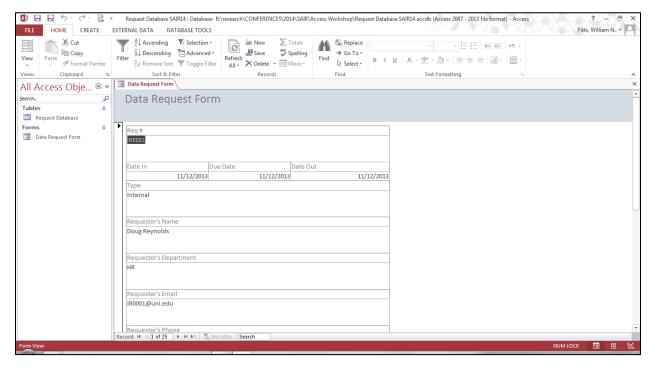




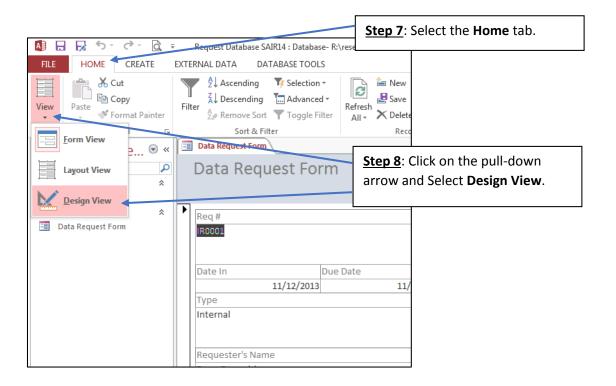




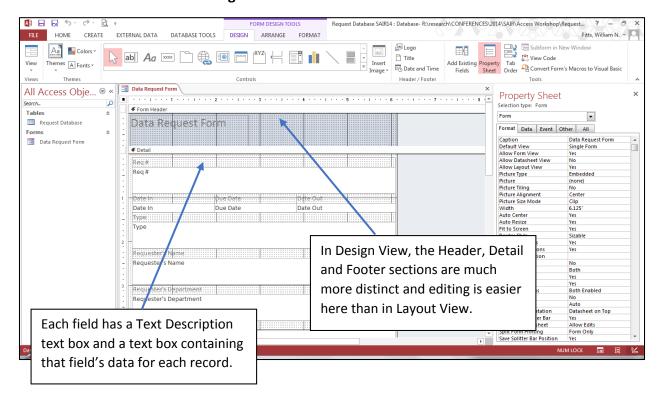
Below is the form we have created. As you can see, there is a lot to be desired in terms
of presentation i.e. formatting.



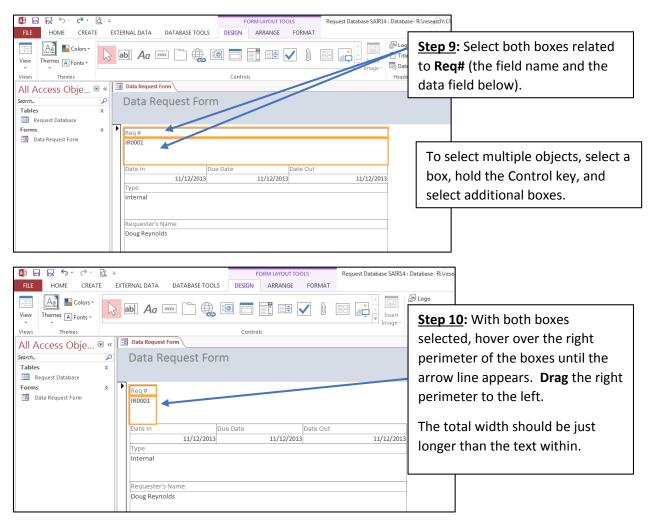
• The Form is currently in "Form View". In order to make edits to the form's design and general layout, we will be switching between these 3 Views.



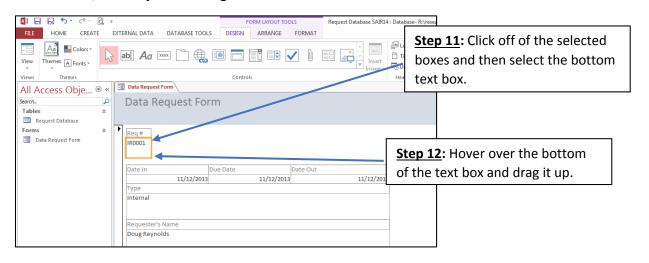
Below is the form in Design View.



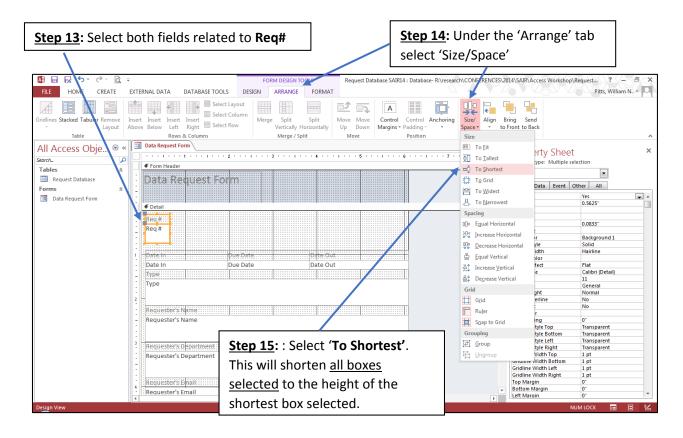
- Switch back to Layout View
- It is easier to adjust the width of text boxes when in the Layout View, since you can actually see an example of the data contained in each box.

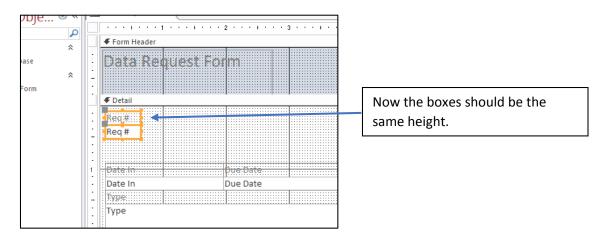


• Next, let's adjust the height of the data text box.

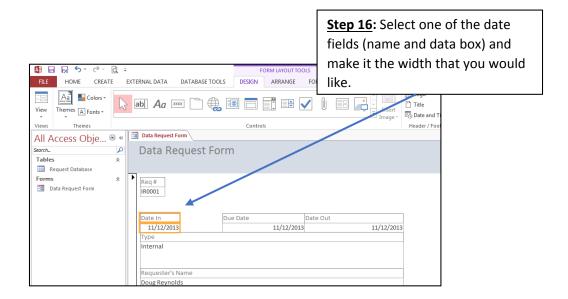


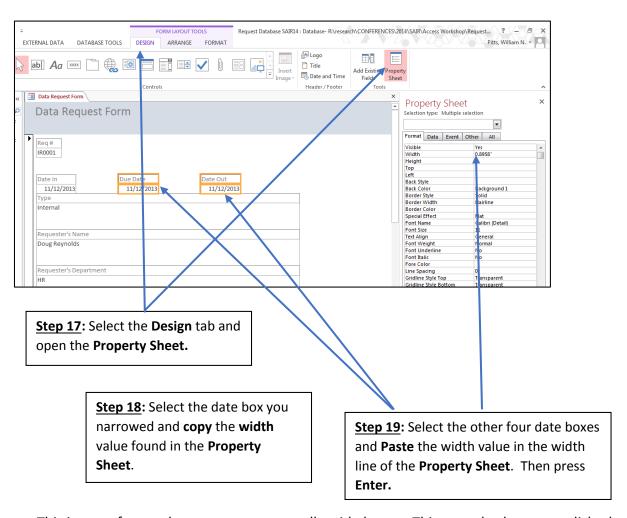
• If we want to make the data box the same height as the description box above it, we should switch over to design view, where there are tools that simplify this.



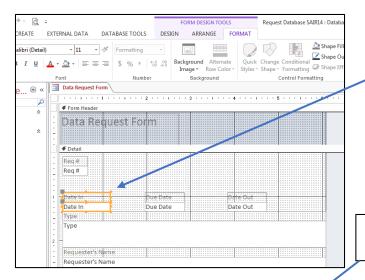


Switch back to Layout View.



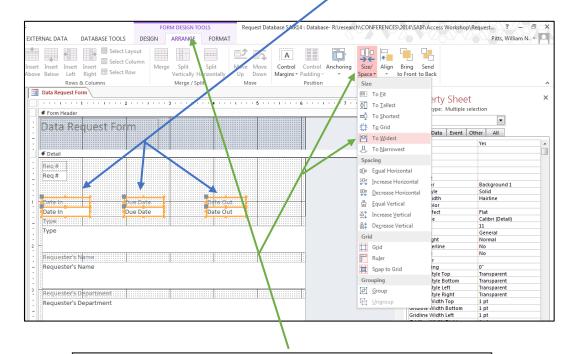


- This is one of several ways to ensure equally wide boxes. This may also be accomplished in the **Design View** by utilizing the **'Size/Space'** commands.
- Let's switch back over to the **Design View** (Home tab→View) to use this option.

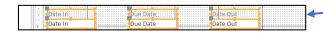


Step 20: Select the field name and the field data boxes for "Date In" and slightly increase their width by dragging their right border slightly to the right.

Step 21: Select all date related fields.

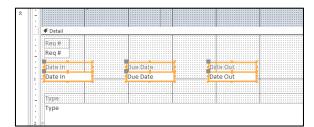


<u>Step 22</u>: Under the <u>Arrange</u> tab, Select <u>Size/Space</u> and then <u>To Widest</u>.



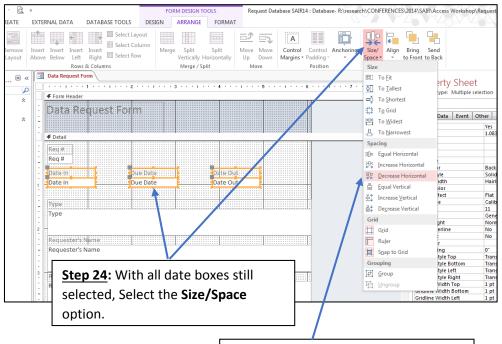
This will, of course, increase the width of the other date boxes to the width of the 'Date In' boxes.

 While they are all selected, we are going to move the date related boxes higher and closer to the Request # field.



<u>Step 23</u>: Left click in one of the boxes (*The double crossed arrows should be visible*), hold down and move boxes up to the desired position.

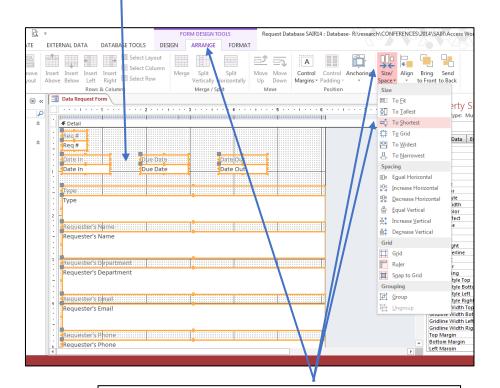
Let's explore some other options within the Size/Space toolbox.



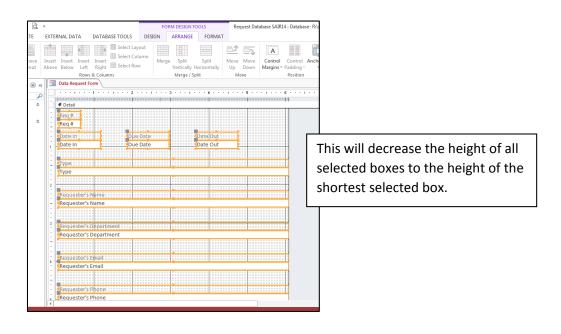
<u>Step 25</u>: Select Decrease Horizontal. This will decrease the horizontal distance between the selected boxes.

Next, we need to decrease the height of several data text boxes.

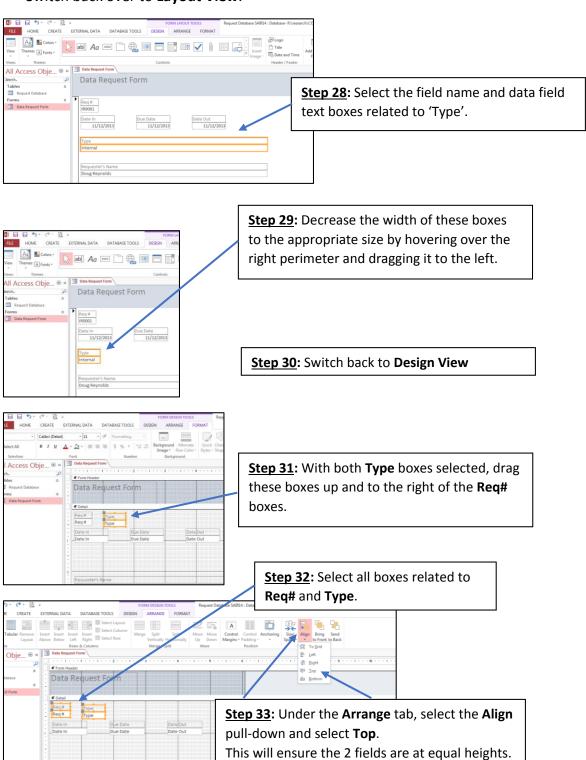
<u>Step 26</u>: Select all boxes in the **Detail** section, except the **Request Description** and **Notes** fields.

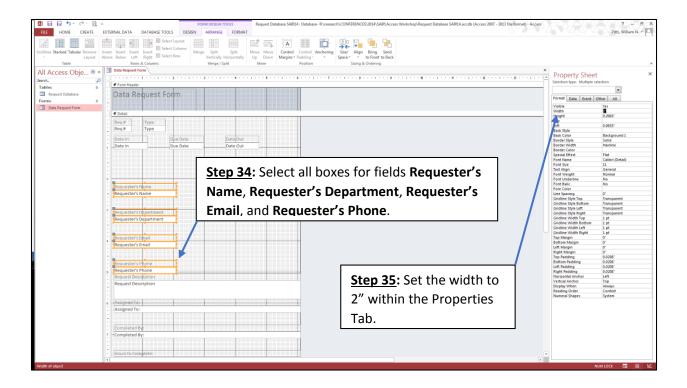


<u>Step 27</u>: Under the **Arrange** tab, select **Size/Space** and then select **To Shortest**.

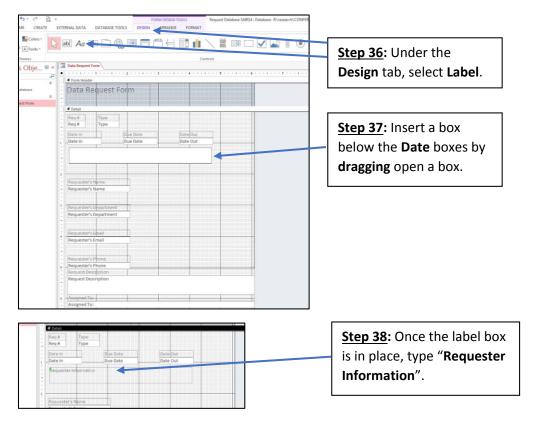


- Next, we need to decrease the width of most of the fields. To ensure we have the proper width for each field, we need to see that data displayed for each field.
- Switch back over to **Layout View**.

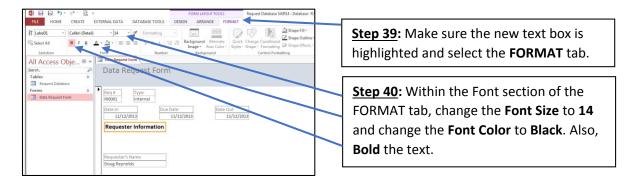




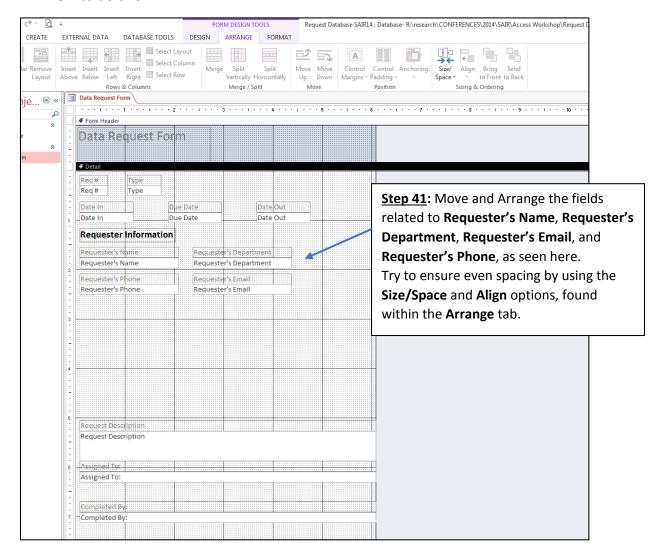
• We would like to add text above the Requester related information and have it read "Requester Information", creatively enough.

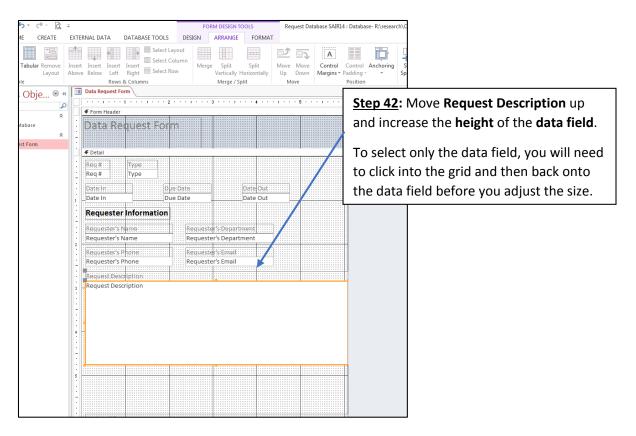


• We need to format the text that we just entered, so let's switch over to the **Layout View**.

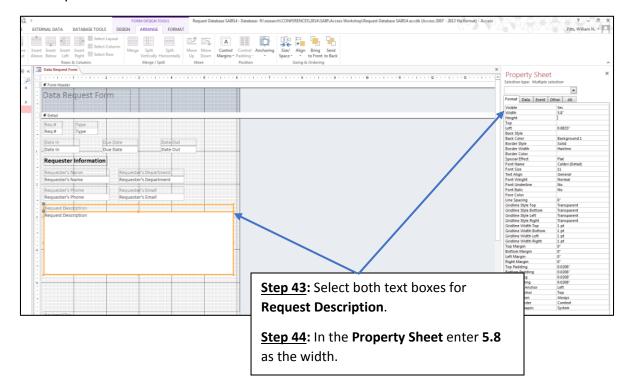


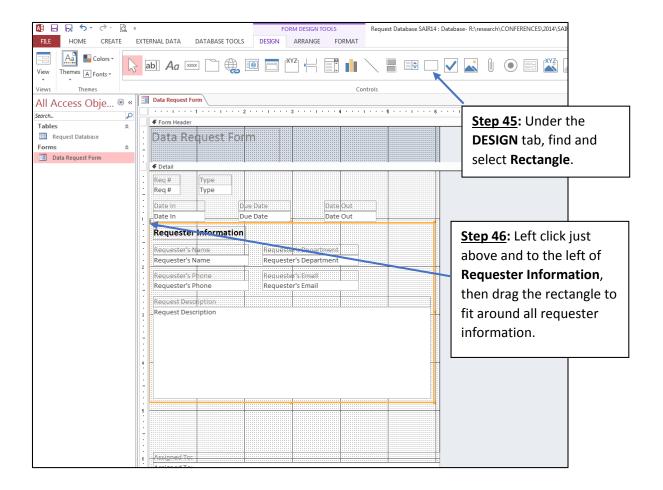
• We need to finish arranging the Request related text boxes. Let's **switch** over to **Design View** to do this.



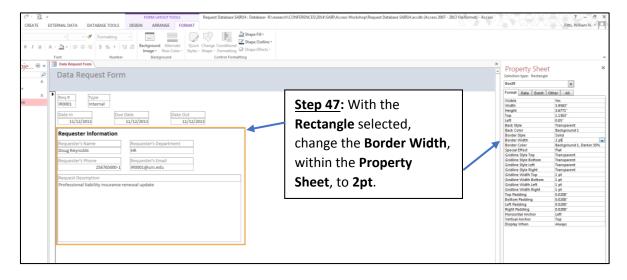


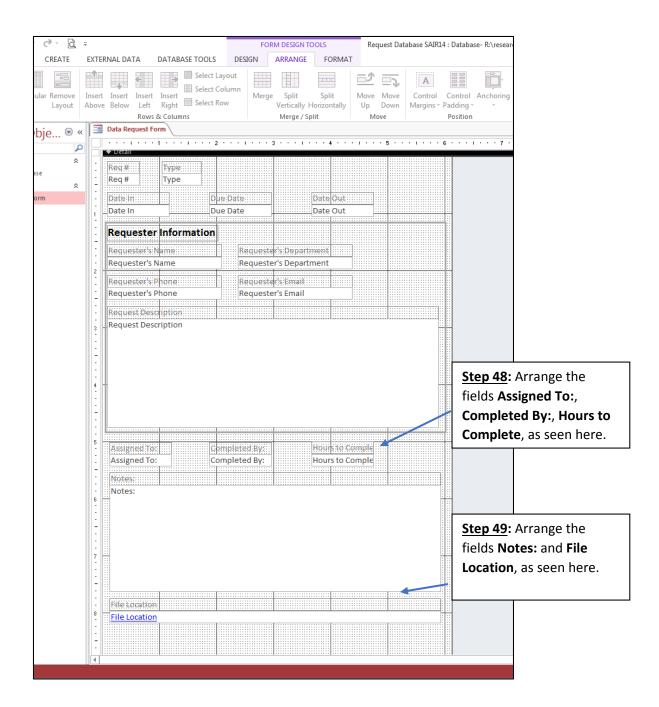
• The text boxes for **Request Description** border the right edge of the page. We need to slightly reduce the width, in order to place a rectangle (in the following step) around all Requester Information.





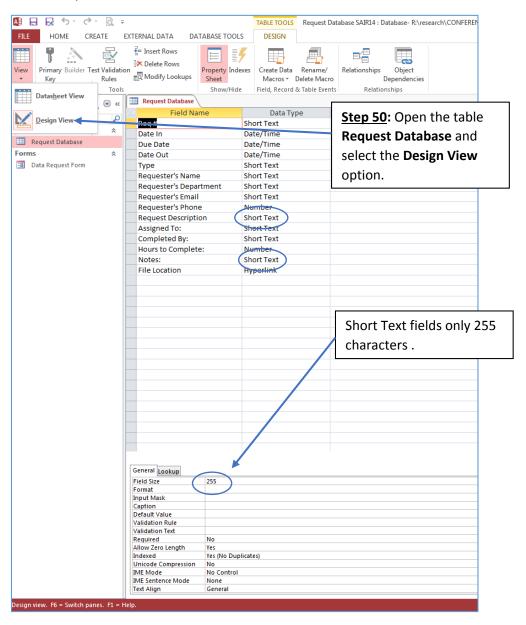
- Let's increase the **Border Width** of the **Rectangle** surrounding the requester's data.
- To do so, let's switch back over to **Layout View**, so that we can get a better perspective of the form's look.

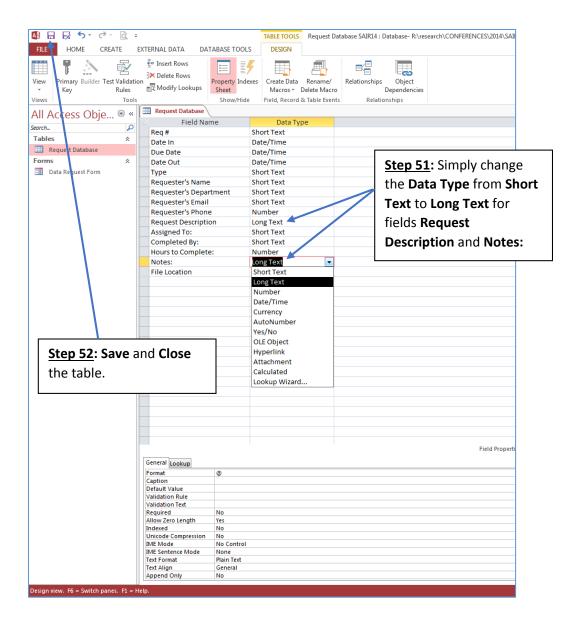




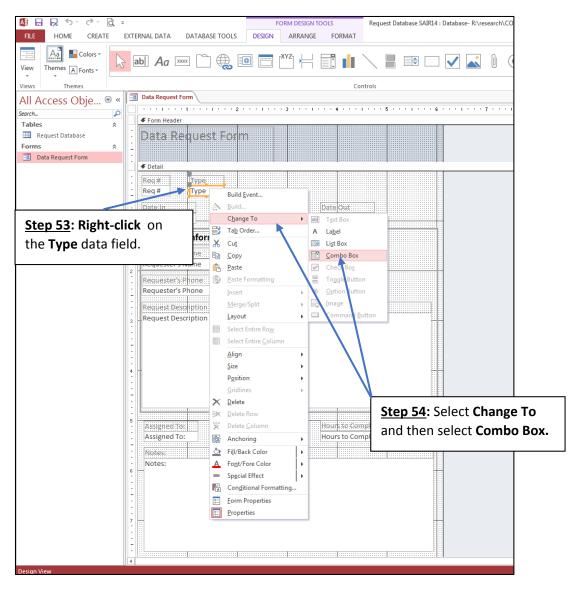
• Save and Close the form.

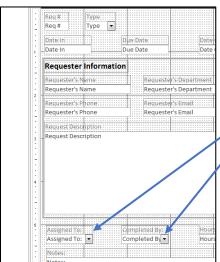
• We need the text boxes for **Request Description** and **Notes** to hold more information than they currently hold. We brought those fields in originally as "Short Text" data types, which only hold a maximum of 255 characters. These are the fields where we may have a lot to enter. We'll need to change their data type to "Long Text", which can hold up to 64,000 characters.





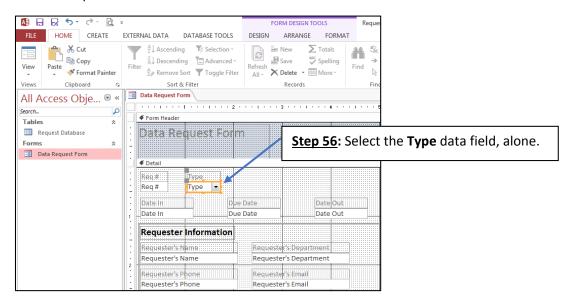
- We want the fields Type, Assigned To:, and Completed By: to be Combo Boxes that use drop
 down choices. This ensures data consistency for these fields. We need to change these fields'
 data boxes from simple text boxes to combo boxes, which will enable the drop-down choices
 feature.
- Let's open our **Data Request Form** and switch over to the **Design View**.

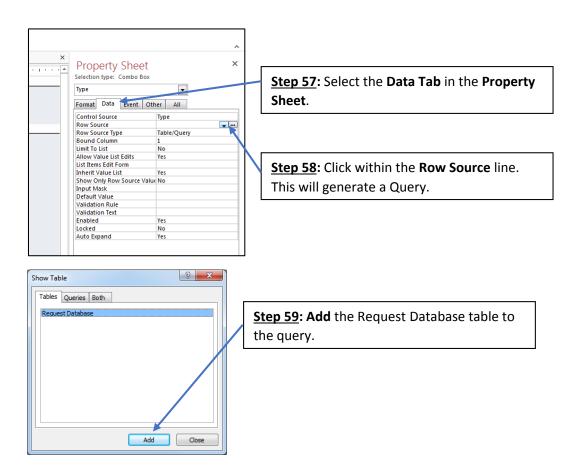


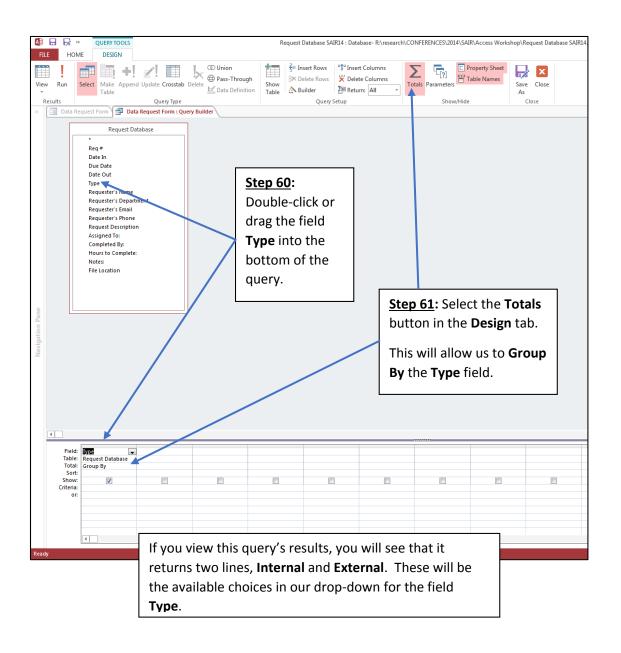


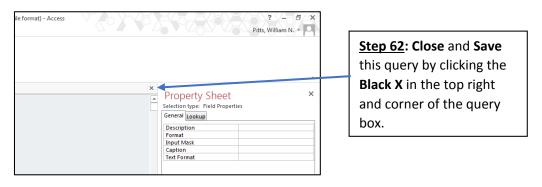
<u>Step 55</u>: Repeat Steps 53 and 54 for the fields **Assigned To** and **Completed By**.

- Now that we have turned these text boxes into combo boxes, we need to populate the dropdown choices with data previously used in these fields.
- To do this we will utilize a query function that groups by these fields' current data.
- Also, as we add new data requests that may be completed by a new person, we will add to the drop-down choices.



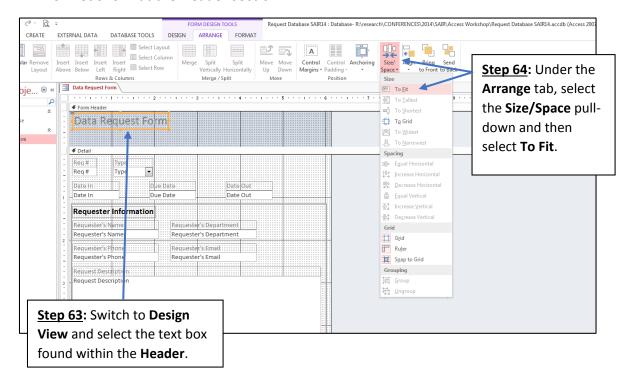




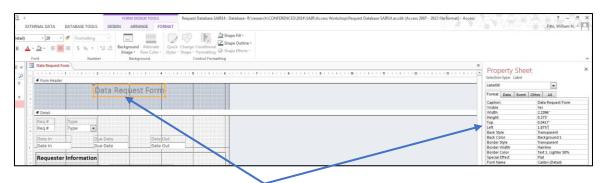


Repeat Step 56 – 62 for the fields Assigned To and Completed By.

• Now let's format the Header section

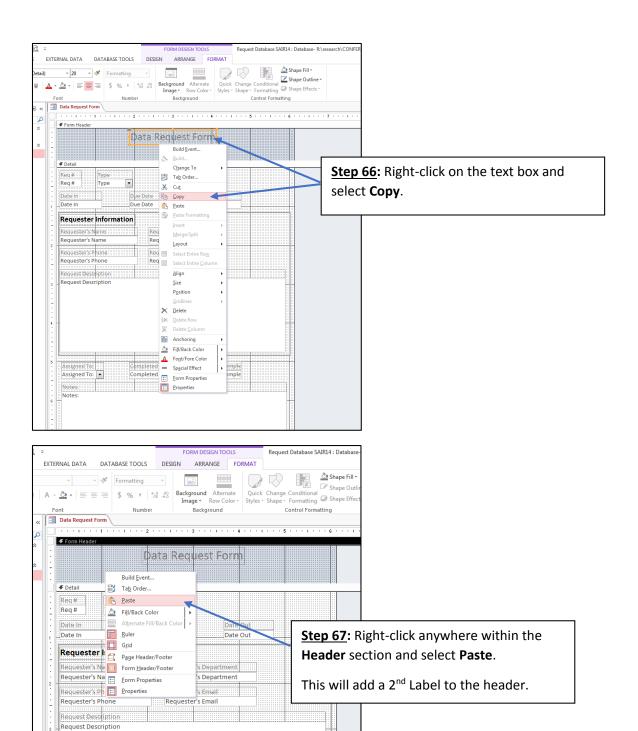


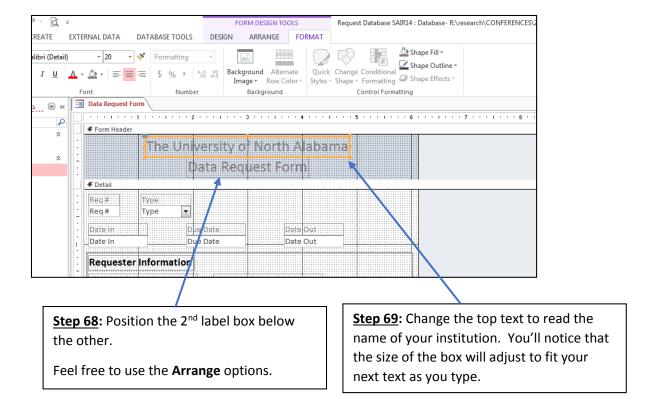
• Using the **To Fit** option fits the size of the text box surrounding the text.



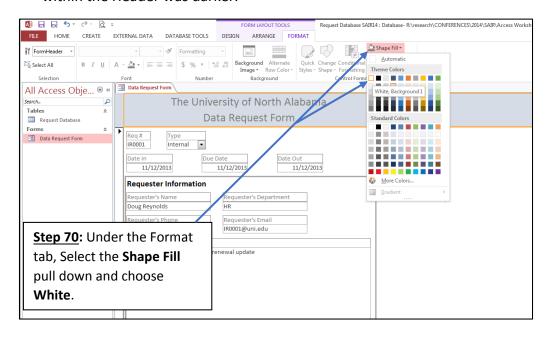
<u>Step 65</u>: Either manually center the text box or center it by entering **1.875** in the **Left** line of the **Property Sheet**.

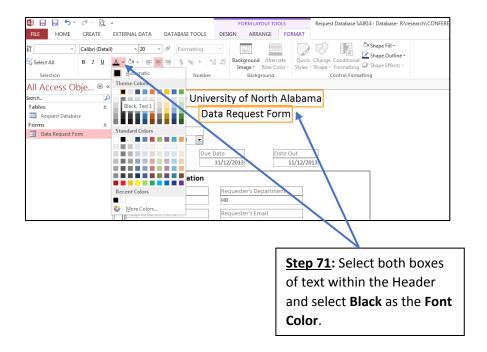
- Next, let's add a 2nd text that will read the name of your institution and have that text box placed above the text that reads **Data Request Form**.
- To do this, the easiest way will be to copy and paste the current text within the Header.
- Then we will place that text below the current text.
- Then we will alter the text on top to read the name of your institution.



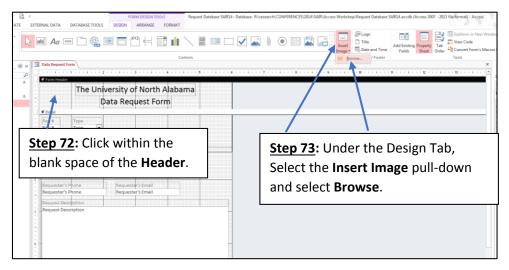


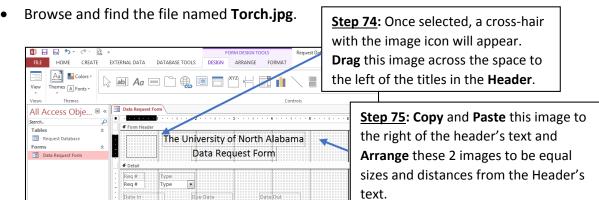
- Let's switch back to Layout View to see how our changes look.
- I believe it would look better if the Header's background color was white and if the text within the Header was darker.



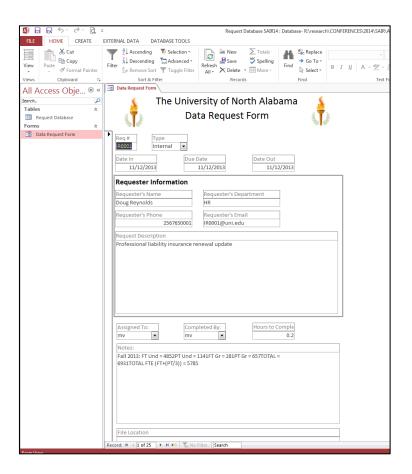


Now let's spruce up this Header by adding a couple of images on both sides of the text.
 To do this, we'll need to switch back over to Design View.

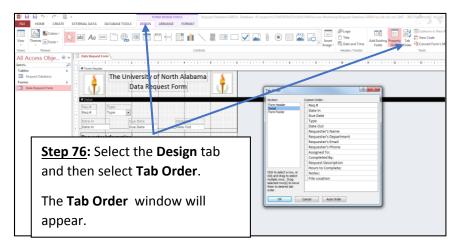


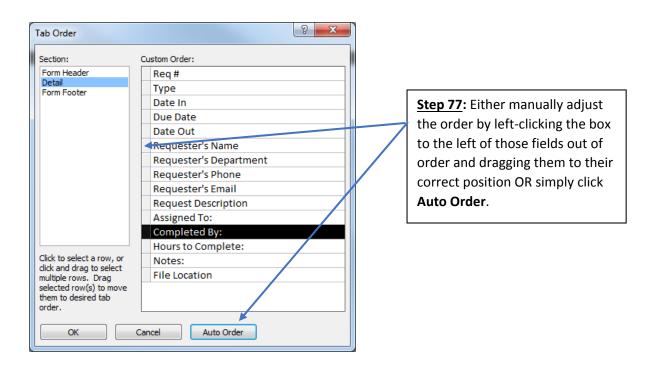


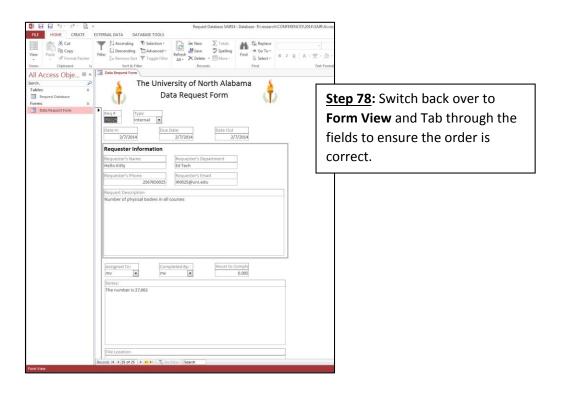
• Switch back over to **Form View** to see the changes we have made to the form.



- If you click within the Req# data field and then TAB through you'll notice that the order is somewhat off.
- We can easily change the order that the form TABs through.
- Let's **switch** back over to **Design View** to make these **Tab Order** changes.

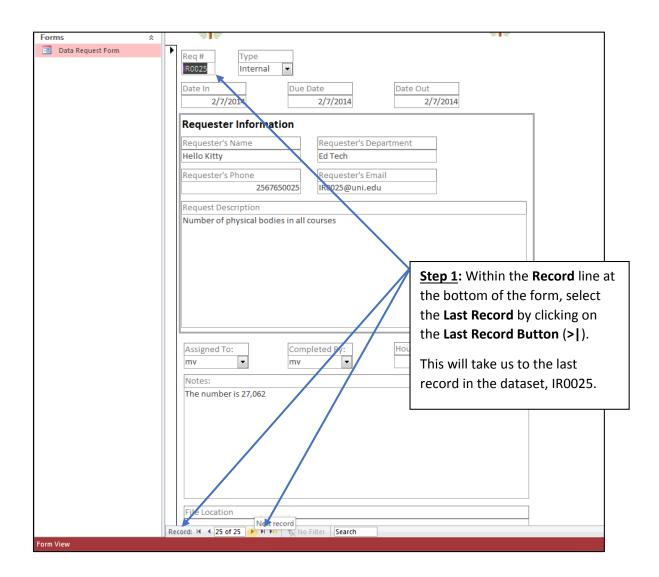




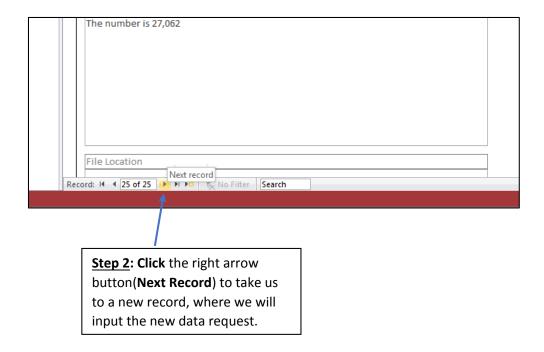


ADDING A NEW DATA REQUEST

- Now that the Data Request Form is complete, let's go through the steps of adding a new data request.
- When we add the new request, this process will add a new record to the **Request Database** table.



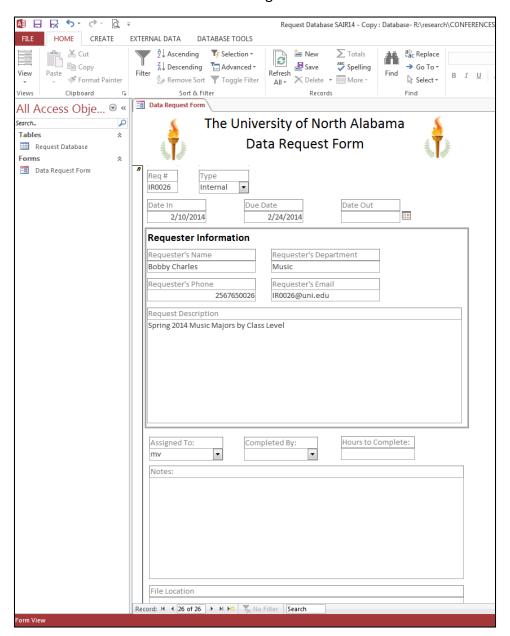
• We want to keep the request numbers in Alpha-numeric order. Our next data request ID should be "IR0026".



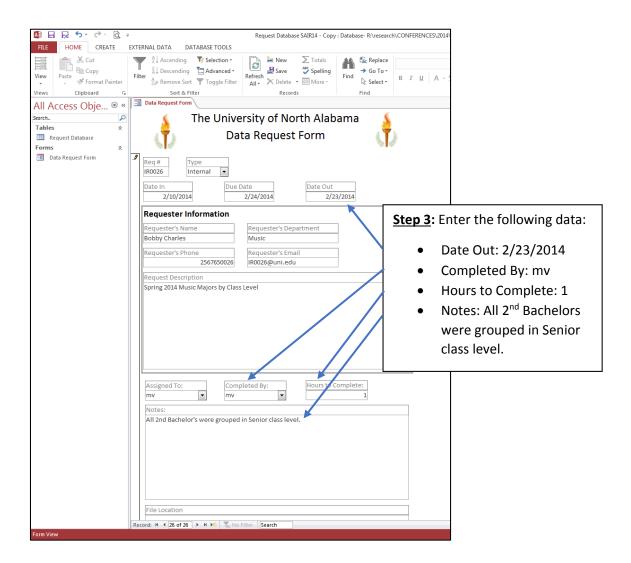
• Enter the following data into the blank record:

Field	Information to Input		
Req#	IR0026		
Туре	Internal		
Date In	2/10/2014		
Due Date	2/24/2014		
Date Out	Leave Null		
Requester's Name	Bobby Charles		
Requester's Department	Music		
Requester's Phone	2567650026		
Requester's Email	IR0026@uni.edu		
Request Description	Spring 2014 Music Majors by Class Level		
Assigned To:	mv		
Completed By:	Leave Null		
Hours to Complete	Leave Null		
Notes:	Leave Null		
File Location	Leave Null		

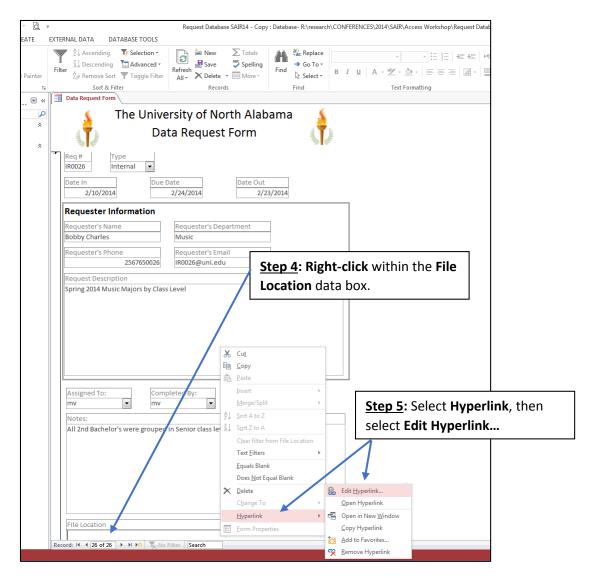
• The record should look like the image below:



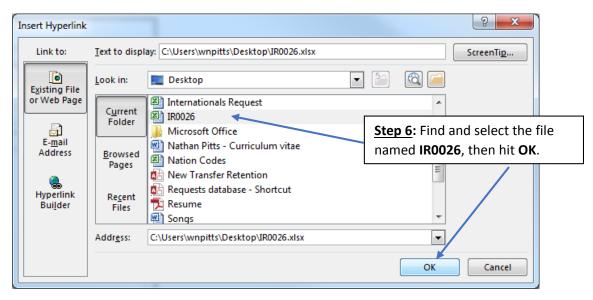
- Now we have entered a new data request and this request and that information is now saved in our **Data Request** table.
- Let's move forward in time, to the time when we have completed the request, so that we can go through the steps involved in logging out the request and mapping the final file serving as the completed request.

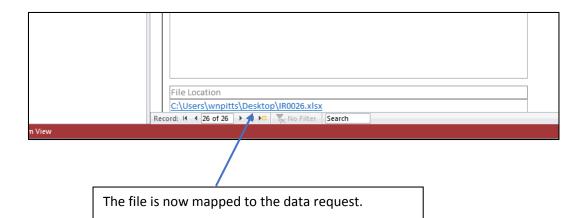


- Lastly, we need to map the completed file, within the **File Location** section.
- There is a file named IR0026 (check your desktop) that we will use as our completed request.



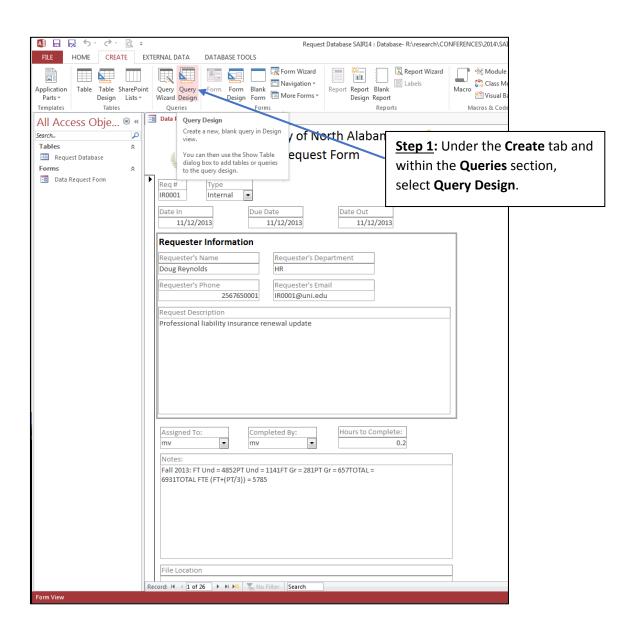
A browse window will appear.

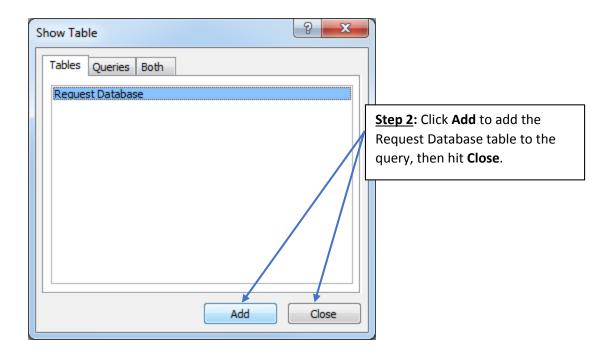


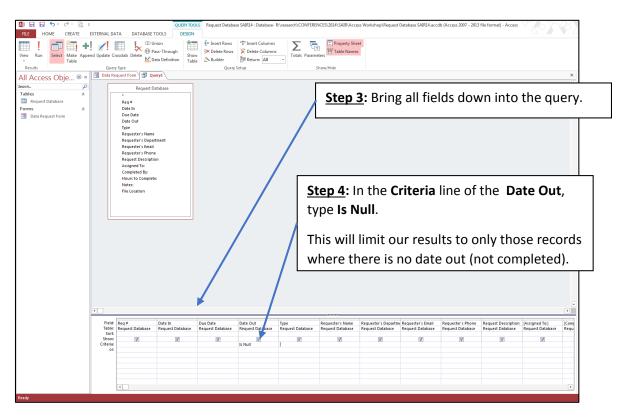


CREATING REPORTS TO ANALYZE OUR DATA REQUESTS

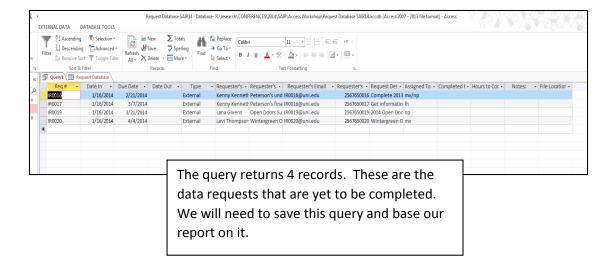
- Being able to create reports based on our Request Database table is a great tool. One very
 useful report is an Outstanding Data Requests report, which will allow you to view what data
 requests that have yet to be completed.
- You can also create reports that allow you to see what reports have been completed within certain time frames (i.e. within the past 2 weeks) or what reports have been completed by specific individuals.
- We will begin by creating the Outstanding Data Requests report.
- Reports may be built on Tables or Queries. Since we need to limit our report to only those
 requests that are outstanding, we will need to create a query that displays all of the data for
 only those requests yet to be fulfilled.



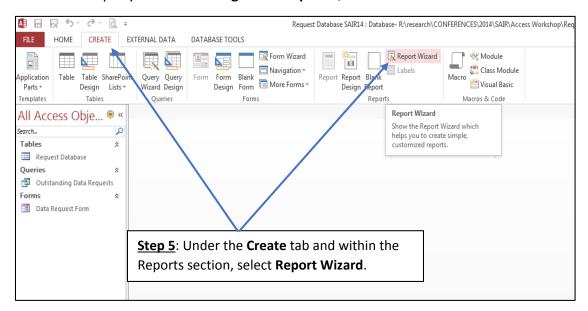




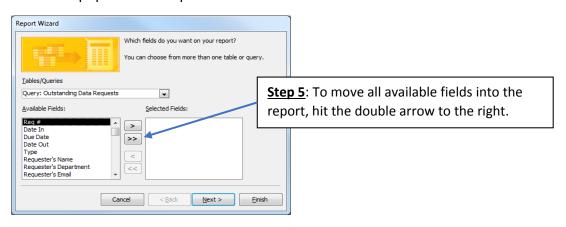
Now run the query.

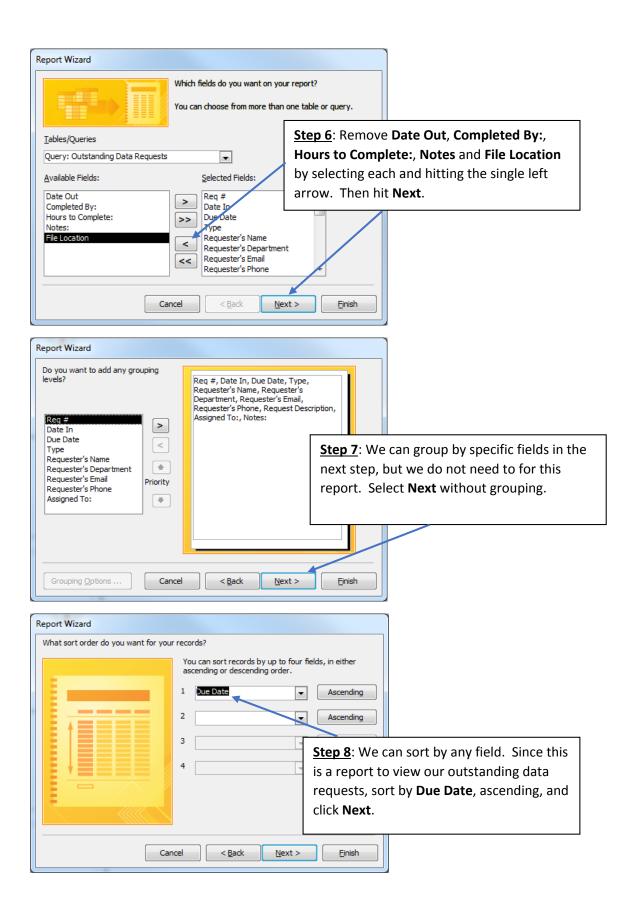


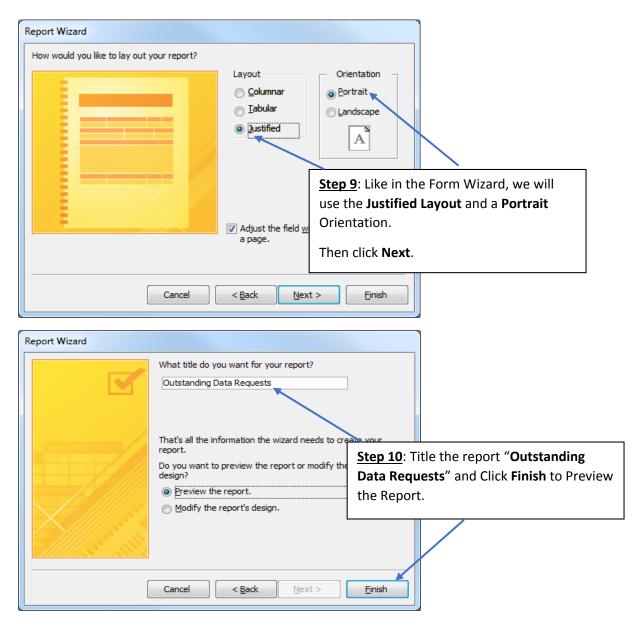
• Save the guery as Outstanding Data Requests, then close it.



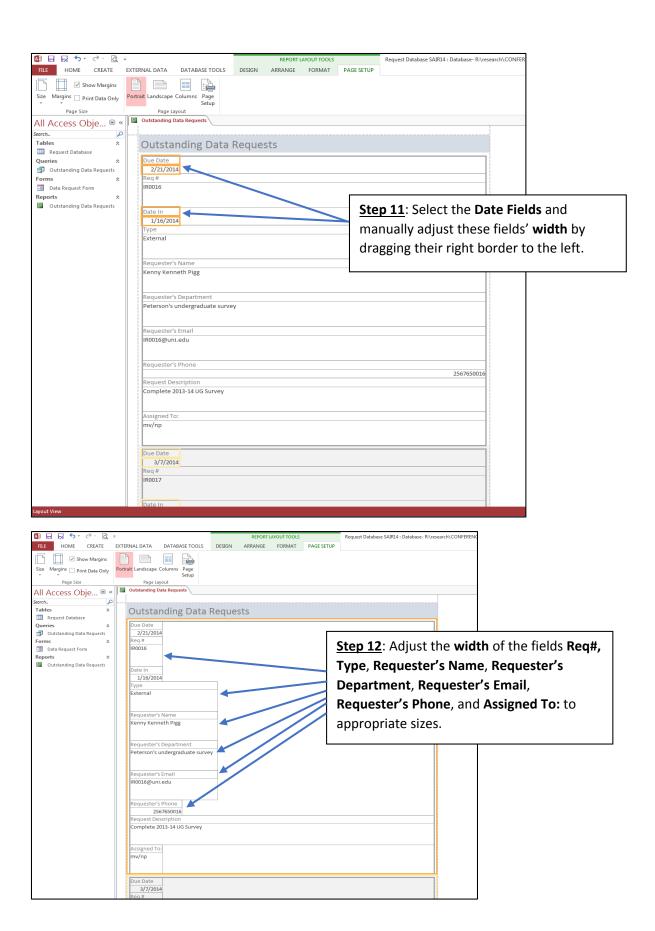
 This will open the Report Wizard window. Here we can select which fields we would like to populate the report.

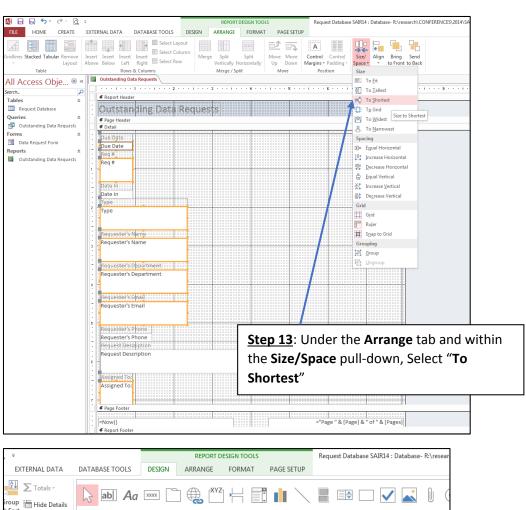


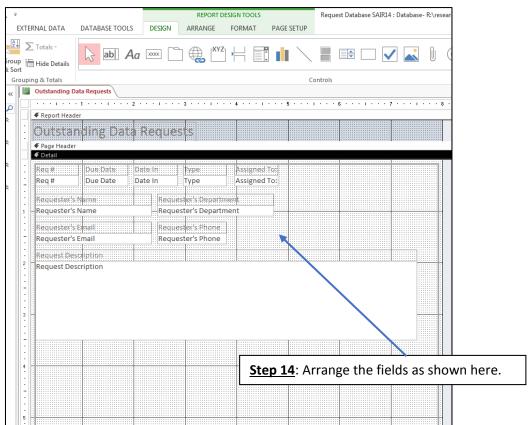


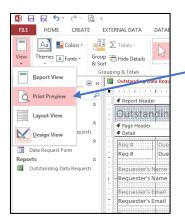


- There is a lot of wasted space in the report.
- We will need to format this report, like we formatted the Data Request Form.
- We will first adjust the width of the fields to the appropriate size.
- We will utilize the **Layout View** to do this, so let's switch over to that view.







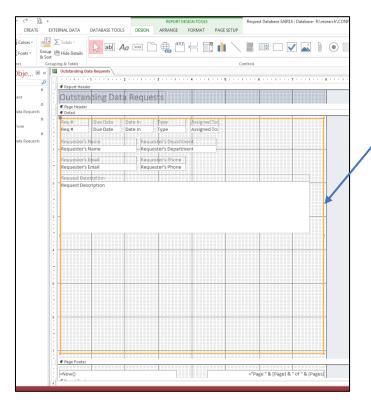


<u>Step 15</u>: Switch over to **Print Preview** to see the report as is.

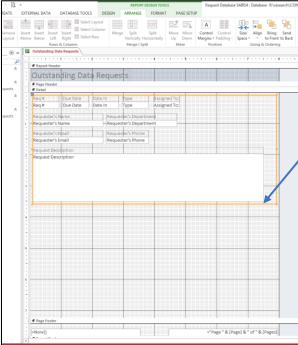


- There is still several areas that need formatting.
- To begin, we would like to have more than one outstanding request to be shown per page.
- Also, the header could be formatted to look better.
- We will work on this next. Close the Print Preview.

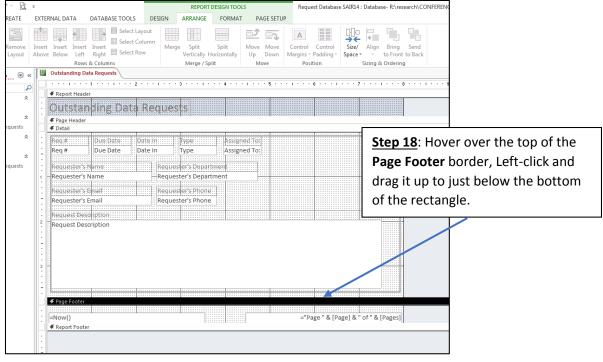
• To allow more than one request to display per page, we will need to reduce the size of the **Detail** section.

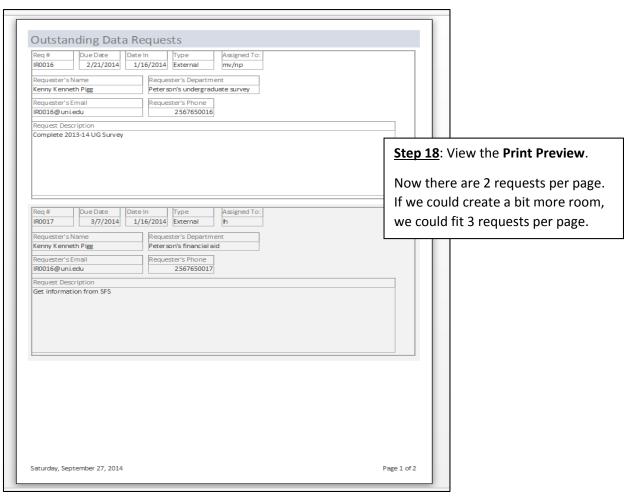


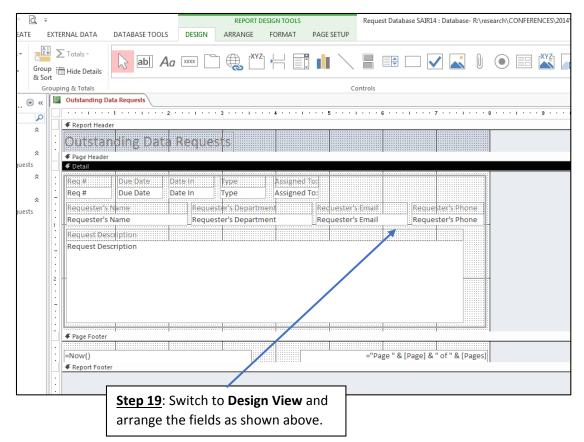
Step 16: Click on the **Rectangle** surrounding the detail fields.



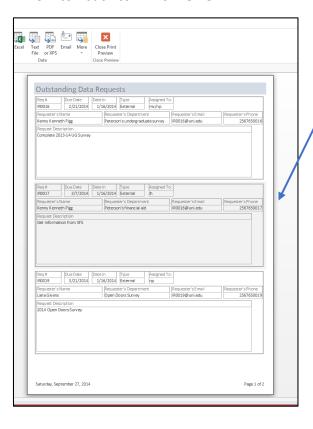
<u>Step 17</u>: Pull up the bottom of the rectangle until it is close to the bottom of the **Request Description**.





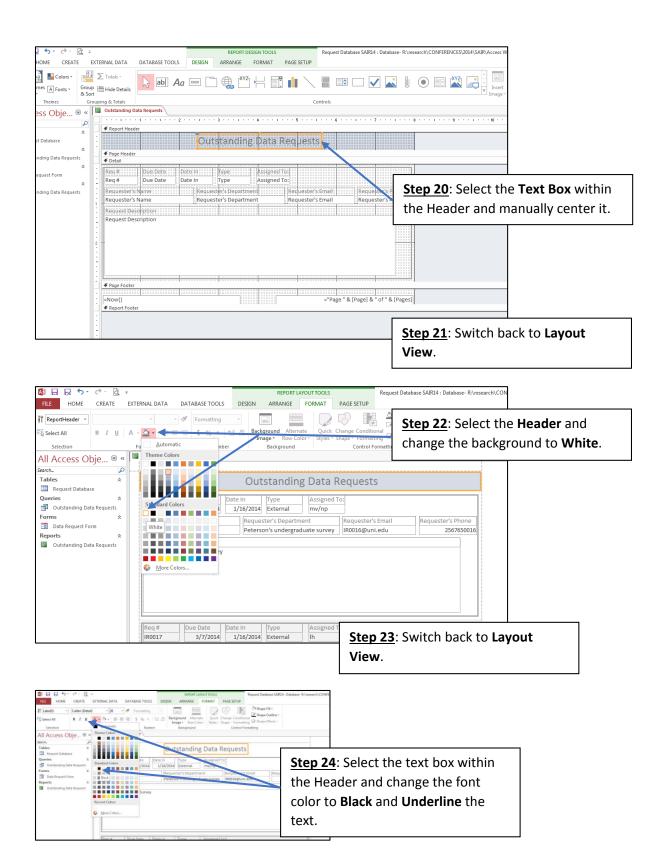


Switch back to Print Preview

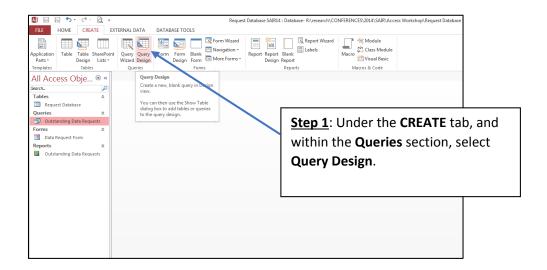


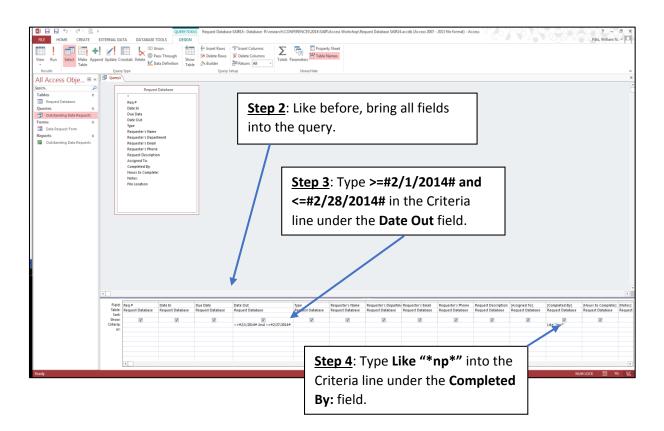
We now have 3 requests on page 1 and 1 remaining request on page 2.

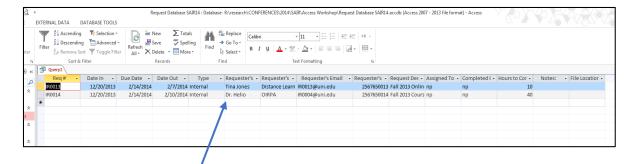
• We now need to format the **Header**, so switch back to **Design View** again.



- Creating additional reports similar to the Outstanding Data Requests report is very simple.
- Let's say that we want to create a report that looks at all of the reports completed by a certain user, labeled as "np", within the month of February of this year.
- We can create a query with these parameters and modify the existing report to pull from that query.
- First, let's create the query.

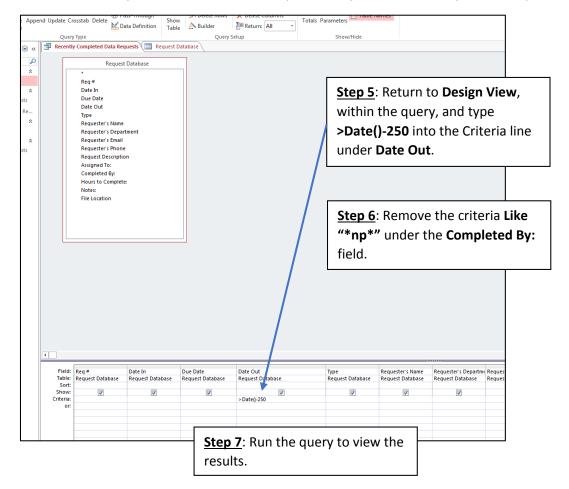


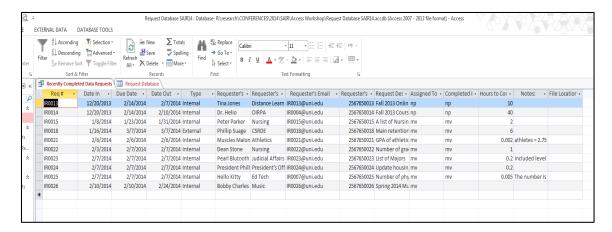




When you run the query, you'll see that there were 2 reports completed by "np" within the month of February.

- This may be interesting data, however a more useful report may be to look at all reports completed in the past X number of days.
- We could create a report that looked at all requests completed in the past 30 days, for example.
 However, since our data set's dates out are between Nov. 2013 and February 2014, that query would return zero records.
- We will modify the formula to look at requests completed within the past 250 days.



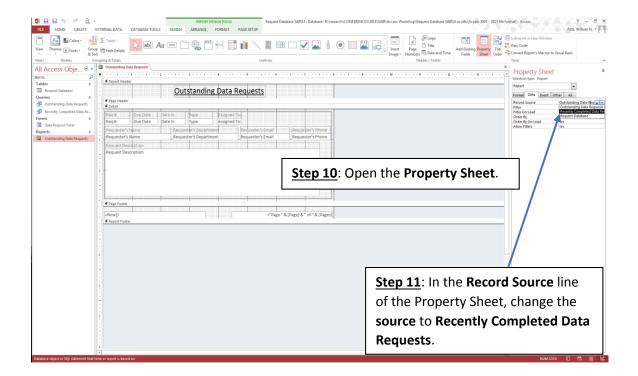


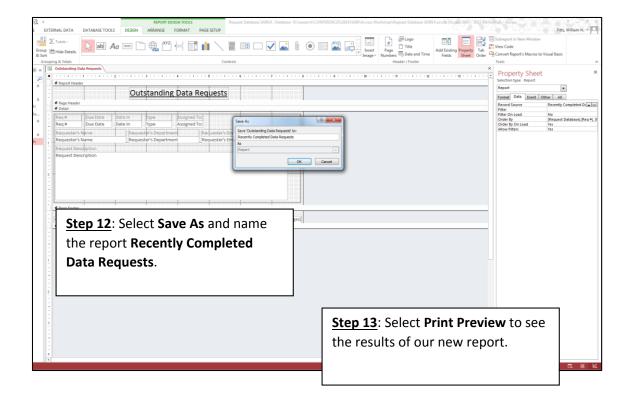
- All requests completed within the past 250 days are displayed.
- We should save this guery and create a report based on this data.
- Keep in mind that if you utilized this query at your institution and wanted to look at the requests completed in the past 30 days, simply replace 250 with 30 in the formula above.

Step 8: Save the query as Recently Completed Data Requests and close the query.

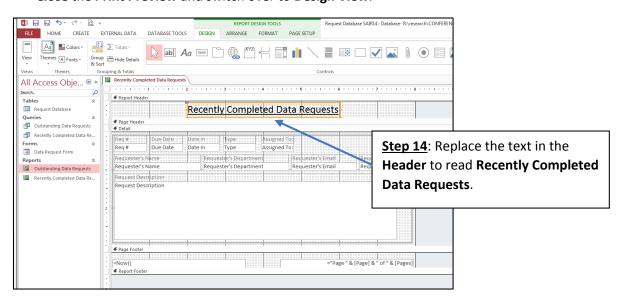
• Instead of creating a report from scratch, as we did before, let's modify the existing report to display our recently completed requests.

Step 9: Open the report Outstanding Data Requests in design view.

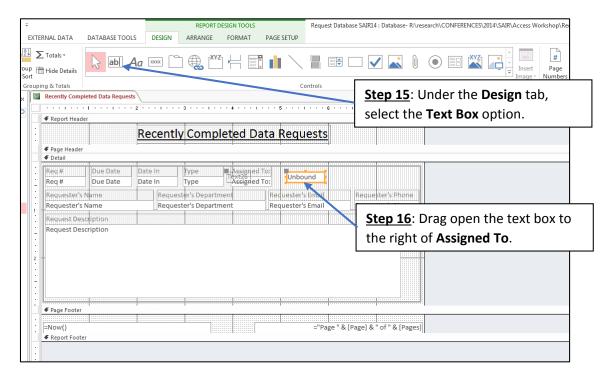




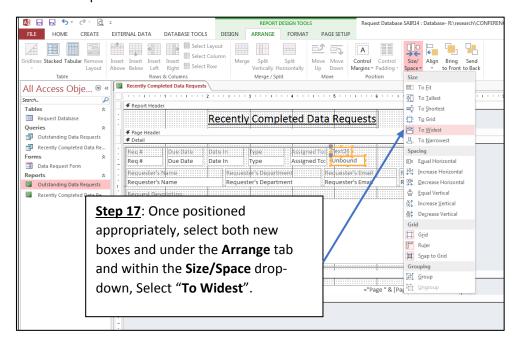
- There are a couple of changes that need to be made to the report, though most of the work is done.
- Of course, we need to change the **title** in the **Header**.
- We also need to include a couple of fields that were omitted from the Outstanding Data Requests report.
 - We need to include the fields Completed By: and Hours to Complete. We could also include the Notes field and File Location fields, if we would like.
- Close the Print Preview and switch over to Design View.

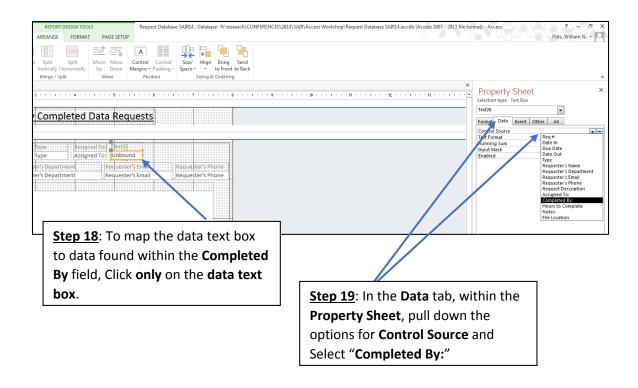


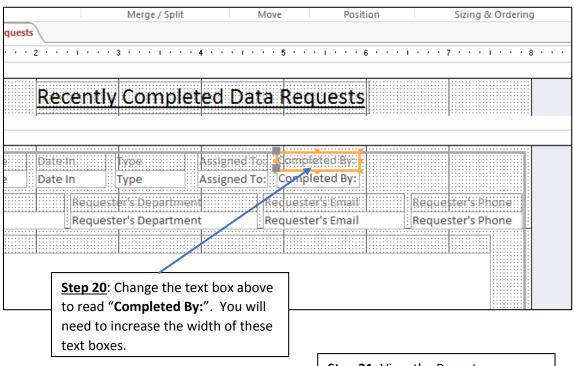
• To add the fields **Completed By** and **Hours to Complete**, follow the steps below.



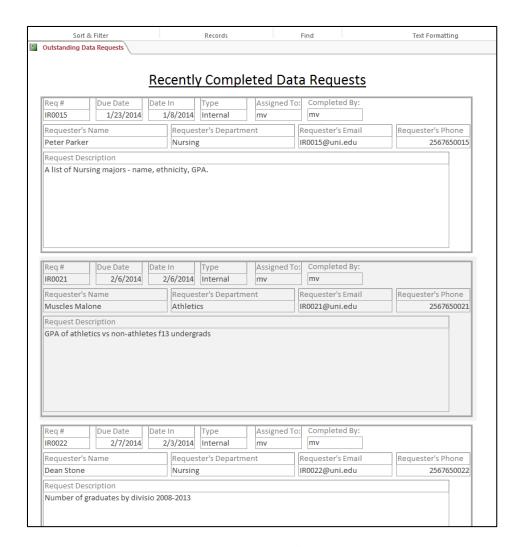
• You'll notice that the text box that reads "Text26" is to the left of the data text box you just created. To place the text box above the data box, grab the box in the top left corner of the text box and pull the text box over and above the data text box.



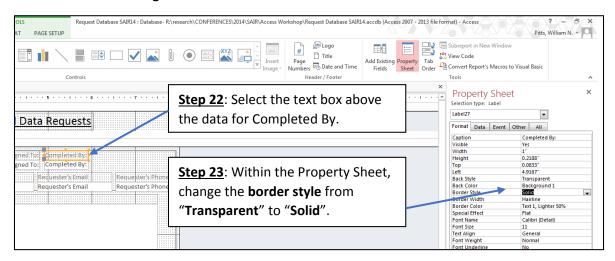




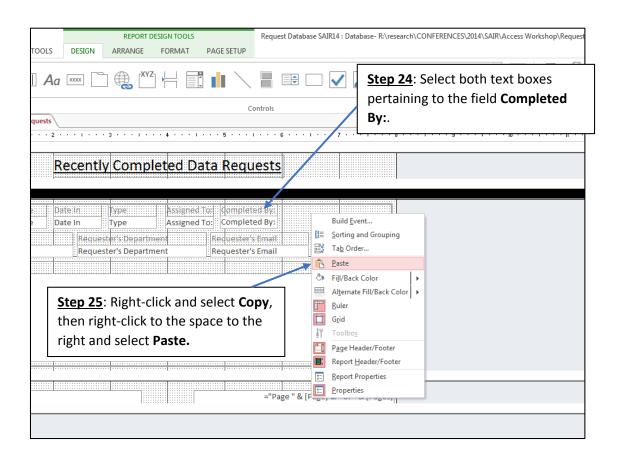
Step 21: View the Report

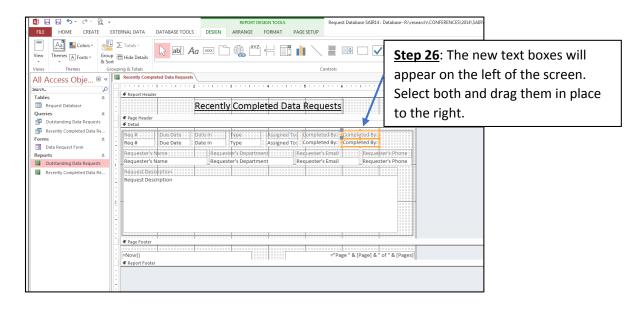


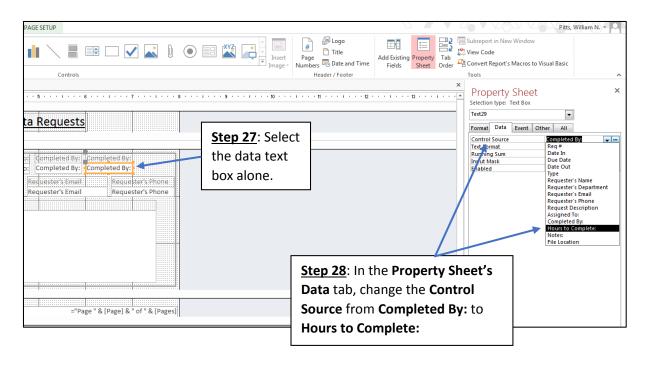
- We now see that the report contains the field displaying the person that completed the request.
 However, the text box above does not have a border surrounding it. We can change this in that text box's property sheet.
- Switch back to Design View.

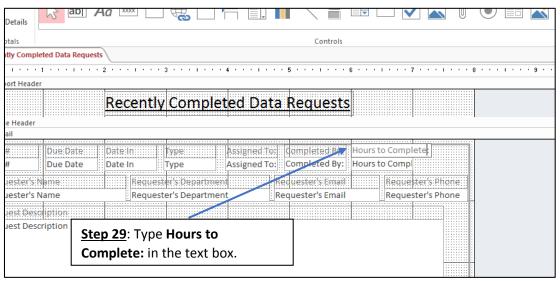


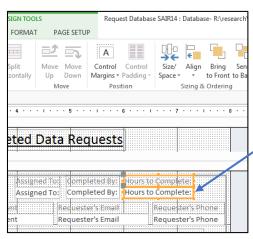
- When you view the report now, the border for the text box will be visible.
- Lastly, we need to add a text box displaying the information for the field Hours to Complete.
- We will use another method to add this box.











<u>Step 30</u>: Increase the **Width** of the data text box to equal the text box above it.

• Save the report and view it in **Print Preview.**

t PDF e or XPS Data	Email More	Close Print Preview Close Preview					
		Recently	/ Compl	eted Dat	ta Requests	<u>5</u>	
Req#	Due Date	Date In	Туре	Assigned To:		Hours to Complete:	$\neg \neg \mid$
IR0015	1/23/2014	1/8/2014	Internal	mv	mv	2	
Requester's I Peter Parker		Request Nursing	er's Departm	ent	Requester's Email IR0015@uni.edu	Requester's P	Phone 7650015
Request Des		wursing			mooto@uni.cuu	2307	030013
	sing majors - name	e, ethnicity, GPA	١.				-
Req#	Due Date	Date In	Туре	Assigned To:	Completed By:	Hours to Complete:	
IR0021	2/6/2014	2/6/2014	Internal	mv	mv	0.002	
_							
			er's Departm	ent	Requester's Email	Requester's P	
Requester's I Muscles Mal Request Des GPA of athle	lone	Athletic	s	ent			Phone 7650021
Muscles Mal Request Des GPA of athle	ione cription tics vs non-athlete	Athletic	s ds		Requester's Email IR0021@ uni.edu	2567	
Muscles Mal Request Des GPA of athle	lone cription	Athletic	s	Assigned To:	Requester's Email IR0021@ uni.edu		
Muscles Mal Request Des GPA of athle	lone cription tics vs non-athlete Due Date	Athletic es f13 undergra Date In 2/3/2014	s ds	Assigned To:	Requester's Email IR0021@uni.edu Completed By: mv Requester's Email	2567	7650021
Muscles Mal Request Des GPA of athle Req # IR0022 Requester's I Dean Stone	Due Date 2/7/2014	Athletic es f13 undergra Date In 2/3/2014	ds Type Internal	Assigned To:	Requester's Email IR0021@uni.edu Completed By: mv	Hours to Complete: 1 Requester's R	7650021
Muscles Mal Request Des GPA of athle Req # IR0022 Requester's I Dean Stone Request Des	lone cription tics vs non-athlete Due Date 2/7/2014 Name cription	Date In 2/3/2014 Request Nursing	ds Type Internal	Assigned To:	Requester's Email IR0021@uni.edu Completed By: mv Requester's Email	Hours to Complete: 1 Requester's R	7650021
Muscles Mal Request Des GPA of athle Req # IR0022 Requester's I Dean Stone Request Des	Due Date 2/7/2014	Date In 2/3/2014 Request Nursing	ds Type Internal	Assigned To:	Requester's Email IR0021@uni.edu Completed By: mv Requester's Email	Hours to Complete: 1 Requester's R	7650021

Thank you for attending. If you need any additional information or help, please feel free to contact either of us:

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