

Lab 10, Forms and Reports

CS 0131, Software for Personal Computing
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We’ve done a lot of work with tables and queries in Access, but now it’s time to get our data in and out in a more intuitive way. Today, we’ll work on generating forms and reports.

1 Generating a Form

Suppose we want a form where we can enter employee data that automatically calculates each employee’s years of service and raise to help us verify that we’ve entered our data correctly.

1. Download `insurance.accdb` from today’s entry in the “Schedule” page of the course website and open the database.
2. First, notice the data held in each of the three tables, and see how the *Employees Query* combines data from these tables to calculate each employee’s raise based on his or her salary and title.
3. With the *Employees Query* open, create a new default form from that query. Notice that the *HireDate* is a constant value for each employee, but this isn’t very descriptive about how long they’ve been with the company.
 - a. From `Form Layout Tools >> Arrange`, split the row containing the *HireDate* field horizontally to make room for a calculated field in the form table.
 - b. From `Form Layout Tools >> Design`, select a text box control to place in the newly created cell.
 - c. Change the automatically-generated text label for the new field to something like “**Years of Service**”.
 - d. Go to the Property Sheet for the blank control, and set the control source to a formula which will calculate years of service. Remember, you can refer to the current date with `Date()`, and you can refer to the *HireDate* field by using `[HireDate]`.
 - e. Once you’ve calculated the years of service, we want to round it to something useful. In the Property Sheet, set the Format to “0.0”, which indicates that the result should be displayed to one decimal place.
 - f. Lastly, since this field is calculated from the *HireDate*, we don’t want people thinking they can edit this field directly. Go to the `Data` tab in the Property Sheet and change “Enabled” to “No.” Notice how this field is now greyed out. In Form View, we will no longer be able to type into this box directly.
4. We notice that the *2012Raise* field should probably be a dollar amount and that it’s calculated as well.
 - a. Use the Property Sheet to change the Format to “Currency”.
 - b. Use the Property Sheet to disable this field like you did with the years of service field.

5. Finally, change any non-intuitive label names on your form so that they better reflect to the person using the form what the fields refer to. Resize the cells of your table as necessary to accommodate these changes.
6. Save your form with a descriptive name, and close it.

2 Generating a Report

Now, we'd like a clean and concise report that summarizes all of the employees at each of our many locations.

1. With the *Employees* table open, create a new default report from that table.
2. Start by removing the *EmployeeID*, *Gender*, and *Title* fields from this report since they aren't relevant to this report. Remove the columns from the report table as necessary.
3. We want to group our employees by location, so using **Report Layout Tools** » **Design** » **Group & Sort**, add a grouping by *Location*.
4. Underneath that grouping, suppose we want to sort by *Salary* in descending order (that is, largest first). Add that sort to the grouping and sorting.
5. Make the location IDs bold, size 14 font.
6. Notice that the *Location* grouping is done in a very wide column. Resize this column and others to make the data fit better on the page. (**Note:** The right margin of the page is represented by the grey dashed vertical line.)
7. Use **Report Layout Tools** » **Format** » **Conditional Formatting** to highlight Poor performance ratings in red, and Excellent performance ratings in green.
8. Lastly, enter Design View to view the various report sections individually.
 - a. Select a cell in the report's *Page Header*, and use **Report Design Tools** » **Arrange** to insert a row above it.
 - b. Select all cells in the new row (using **↑Shift**) and merge them.
 - c. Add a text label control with the text "Prepared for CS 0131 by YOURNAME", replacing YOURNAME with your actual name.
 - d. Make sure that text label is in the merged cell in the *Page Header*.
9. Save your report with a descriptive name, and close it.
10. Once your database has been checked by the instructor, close it to ensure that all pending changes are saved before submission.

Submission

To receive credit for these exercises, call over the instructor, who will check that you have completed the assignment. Then, log into CourseWeb and use the "Assignment Submission" section to submit your "insurance.accdb" file for **Lab 10**.

You should be able to complete this lab in the allotted class time; however, if you are running low on time, the instructor will give you further instructions for completing the rest of this lab at home.

Your lab must be checked by the instructor BEFORE you leave the room AND you must submit your files to CourseWeb in order to receive credit for the lab! Don't forget!