

MIS 316
SPRING 2020
PROJECT 6

Update Project 5 by 'grabbing' data from a Database

Help? I will have virtual office hours most Monday to Thursday from 9 am to Noon as well as periodic Tuesday/Thursday office hours during our normal class times to help a group of students in MIS 316..

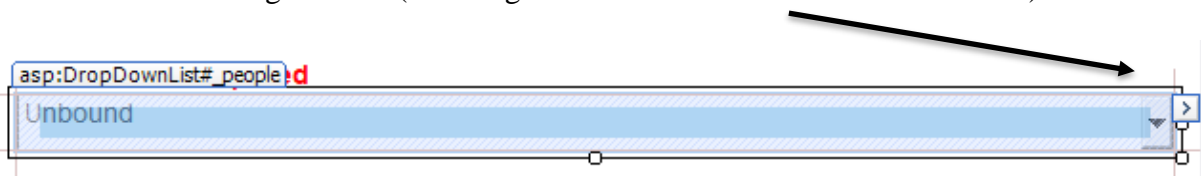
The link to click to get to my 'zoom' room is on the class web site. You might want to send me an email if I don't respond when you get to the zoom room.

1. Either open your project on the MISCapstone server using HORIZON or use VPN and VS on your own machine. See the class website for the PDF on how to use HORIZON.
2. When using Visual Studio, please start by clicking FILE OPEN WEBSITE and point toward at your folder (S20xxx) versus pointing at your .sln file
3. There should be a starting Project6.aspx file in your S20folder, as it will have all of the HTML and error checking complete for this project..
4. Fix any errors on the as noted in Entropy for Projects 5 and **test** any changes.

Project 6

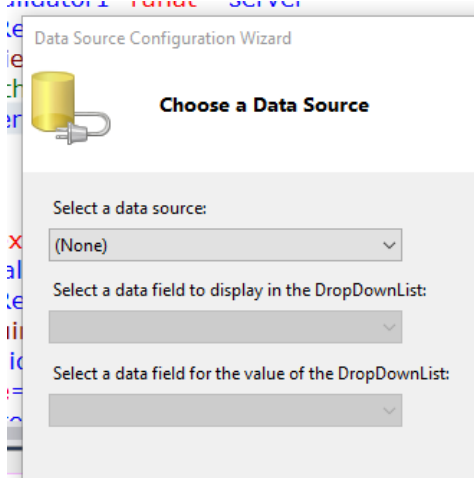
5. Scan the first half of Chapter 11 in your text, it will give you an introduction to binding to a database to retrieve data.
6. Open the Project6.aspx starting file
 - a. Update the title tag – first line
 - b. Update the H tag with your name
 - c. Save
7. Open the site.Master and modify the black navigation bar to direct users to this page
 - a. Open the site.master page
 - b. Look around row 58 where you have them directed to Project 6
 - c. Copy this row and modify the href portion to direct them to Project6 and change the text to be Project 6 (with space)
 - d. Save and Test, when you click Project 6 does it take you to your new page?
8. Close the site.master and have open only the Project6.aspx page

9. In Project 5 you had a text box for the user to enter their role (student, faculty etc.), this may lead to many different spellings or roles that do not exist. Instead we will bind your page to a database table that contains the valid roles for our project.
10. Look in your Project6.aspx page, around line 49, and place a drop down list from the toolbox between the two comments indicating where the drop down should be placed, name (ID) the drop down list as `_role`.
 - a. Modify the CSSClass property to read: form-control
11. At this point you will want to insure that you are either in HORIZON or have VPN turned on, as you will need to connect to the miscapstone server for the database tables.
12. In Split View, click once on the drop down list (most likely reading: Unbound). There should be a right arrow (at the right hand side of the Unbound Grid View)



13. A dialog box should pop up and read Data DropList Tasks
 - a. Select Choose Data Source

14. Then from the 'Select a data source', select NEW



15. The next screen should have SQL Database selected as the default, your only task on this screen is to change the ID of the data source to be `SqlDataRoles`
16. On the Choose your Data Connection screen select: `NewConnection`
17. Now we will tell the program to open a specific database (named: MIS 316) and to enter as user (`mis316`) and also give it a password (`spring2020`) – see next page.
 - a. Change authentication to `SQL Server Authentication`
 - b. Check, `save my password`
 - c. Connect to datebase, if all the above is correct `mis316` should appear in the list

Add Connection ? X

Enter information to connect to the selected data source or click "Change" to choose a different data source and/or provider.

Data source: Microsoft SQL Server (SqlClient) Change...

Server name: miscapstone Refresh

Log on to the server

Authentication: SQL Server Authentication

User name: mis316

Password: ●●●●●●●● Save my password

Connect to a database

Select or enter a database name: mis316

Attach a database file: Browse...

Logical name:

18. Once complete, it will add a connection string (miscapstone.mis316.dbo) to your Choose your data connection dialog box. You will only need to do the above steps once as it will save all the connection information for you. Hit NEXT

Choose Your Data Connection

Which data connection should your application use to connect to the database?

mis316ConnectionString New Connection...

Connection string

19. Once you see the above screen, hit NEXT again

20. At this point we have a live connection to a database on the miscapstone server, now we will tell it what sql statement we want to execute (see next image)
- Select Specify a custom SQL statement or stored procedure, a stored procedure is a saved SQL statement you will want to execute more than one.



Configure the Select Statement

How would you like to retrieve data from your database?

Specify a custom SQL statement or stored procedure

Specify columns from a table or view

Name:
people

Columns:
[] *

21. Once your screen looks like the above hit NEXT and you will see the screen below. Select Stored Procedure, and then from the drop down list, select validRolesSelectAll and hit NEXT

Configure Data Source - SqlDataSource1

Define Custom Statements or Stored Procedures

Click a tab to create a SQL statement for that operation.

SELECT UPDATE INSERT DELETE

SQL statement:

Stored procedure:
validRolesSelectAll

< Previous Next >

- For those of you familiar with SQL statements (from MIS315) here is the Stored Procedure (saved SQL statement) you are asking the database to execute.

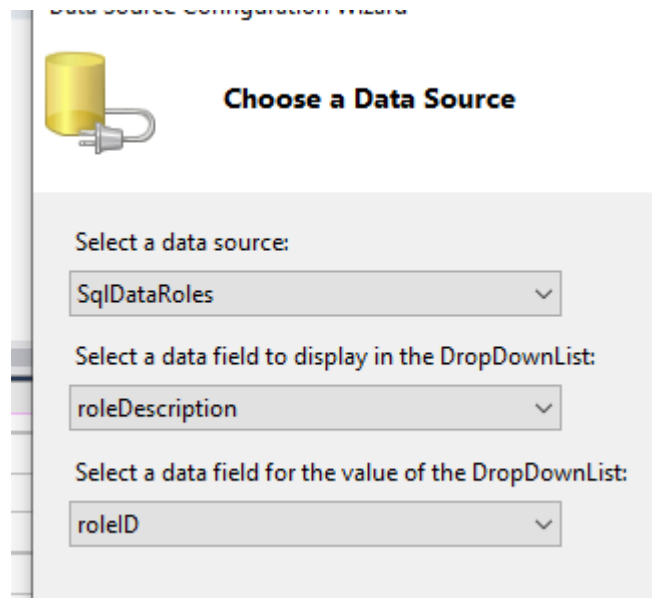
b. `SELECT roleID, roleDescription FROM validRoles ORDER BY roleDescription`

c. And here is the data in the database

1	Student
2	Staff
3	Faculty
4	Administrator
5	Employer
99	System Admin

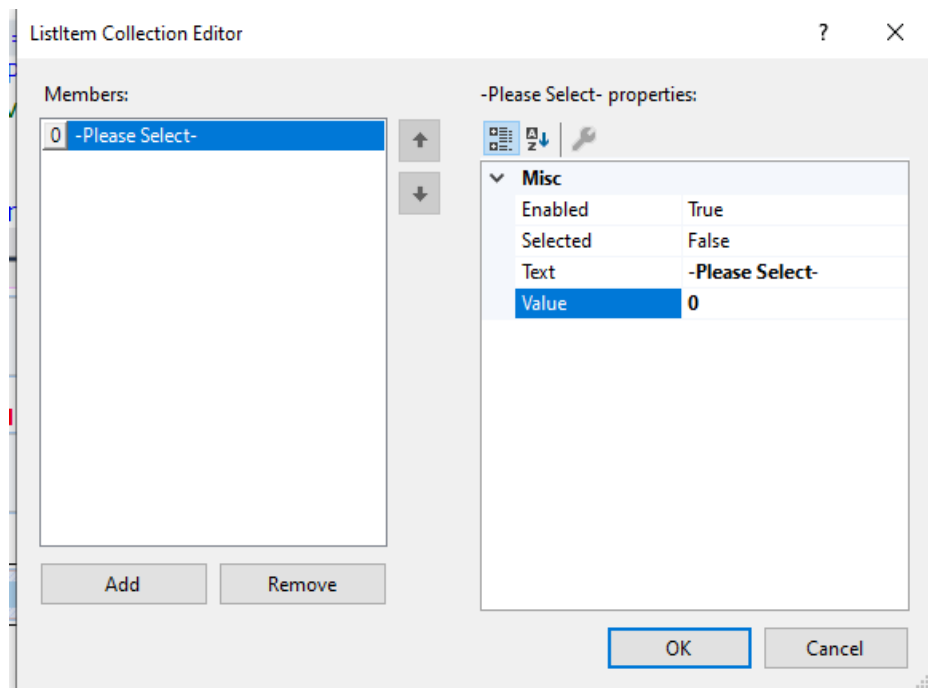
d. Hit Test and then FINISH

22. You will now be back to telling the drop down list what to display to the user, change the data field to display to be the description field, while the value field will be the primary key

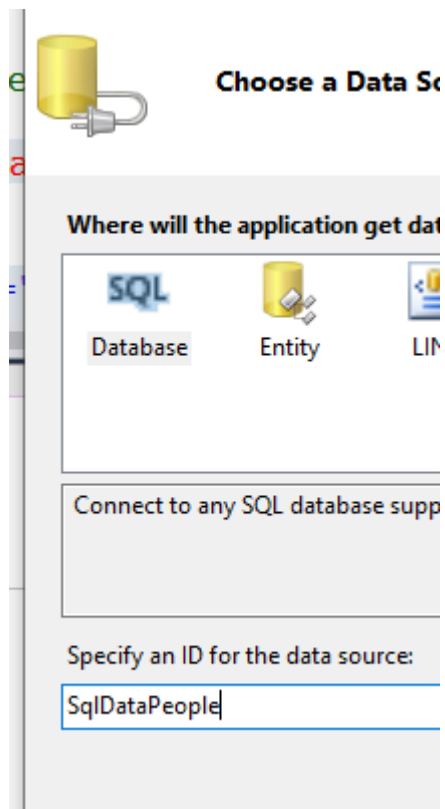


23. Hit Save and then RUN, and you should see a drop down list now populated with the actual valid roles from the database, we have just a few minor changes to make

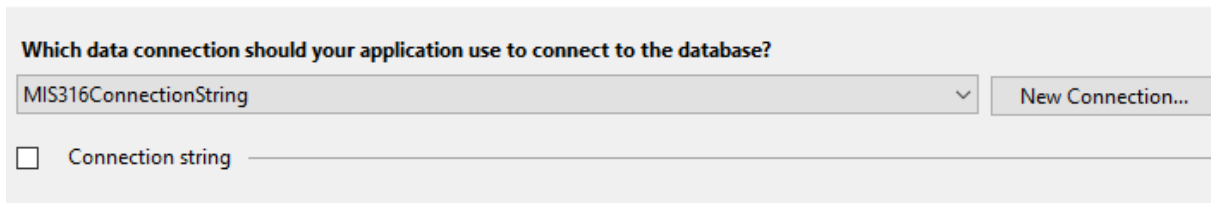
- Note that the drop down list defaults to the first description in the list, we want to add a -Please Select- to the drop down
- Click once on the drop down list in split or design view
- From the property list, find items and hit the three dots
- Click Add on the ListItem Collection Editor and modify the text,value properties as shown in the next image:



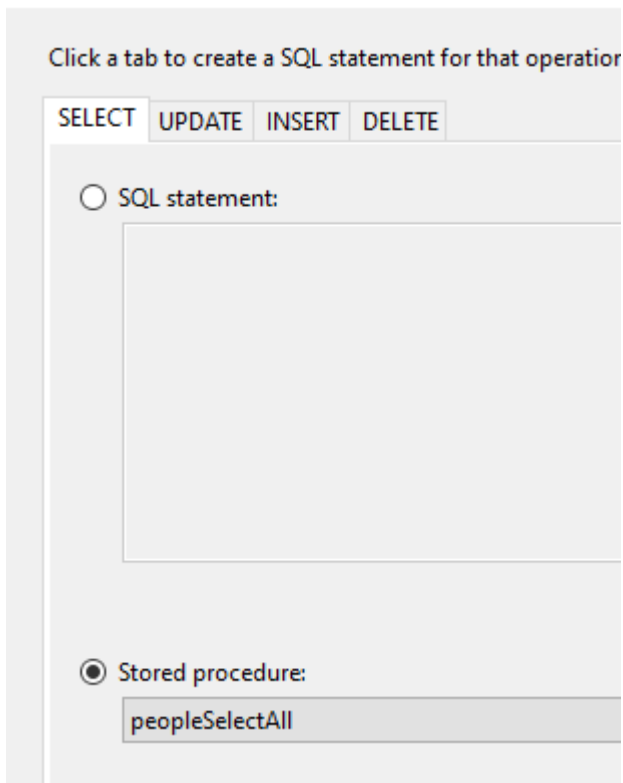
24. Back on the properties for the drop down, change the AppendDataBoundItems to TRUE (this permits database rows to be added to your drop down)
25. Last step, click on the Required Field Validator for the drop down list and update the InitialValue property to 0. This tells the application that if they don't move off the value 0 (which is the Please Select) it will generate an error.
26. Test and down select a role and see if you generate an error.
27. One more step will be to add a grid view to the bottom of the page to display all current people in the database. Again we will bind to the database and a particular SQL statement to retrieve the data from the database.\
28. Around line 74 in your HTML (aspx) view, add a GridView from the ToolBox (it will be in the data section of the ToolBox. Name the gridview (ID) _people.
29. Click once on the GRID, and find the right arrow on the top right of the grid.
30. Select Auto Format and select a color and style you like from the list
31. Return to the Right Arrow off the grid view and select:
Choose Data Source: NEW
32. Change the ID for the data source to be SqlDataPeople



33. Then on the next screen to Choose your Data Connection, it will remember the name of the database, user, and password, so select from the drop down list your mis316onnectionString and then NEXT (do not hit new connection)



34. It might ask you for the password to be entered again, use spring2020
35. On the Configure the Select Command, Select the top option, (Custom SQL statement or Store Procedure)
36. Then select Stored Procedure, named: peopleSelectAll



37. Then TEST and FINISH and note your Grid has been updated with the column headings from the database table, here is the Store Procedure statement you just ran

```
SELECT people.personID, people.firstName, people.lastName, people.email,
people.birthdate, people.roleID, validRoles.roleDescription
FROM people INNER JOIN validRoles ON people.roleID = validRoles.roleID
ORDER BY people.lastName, people.firstName
```

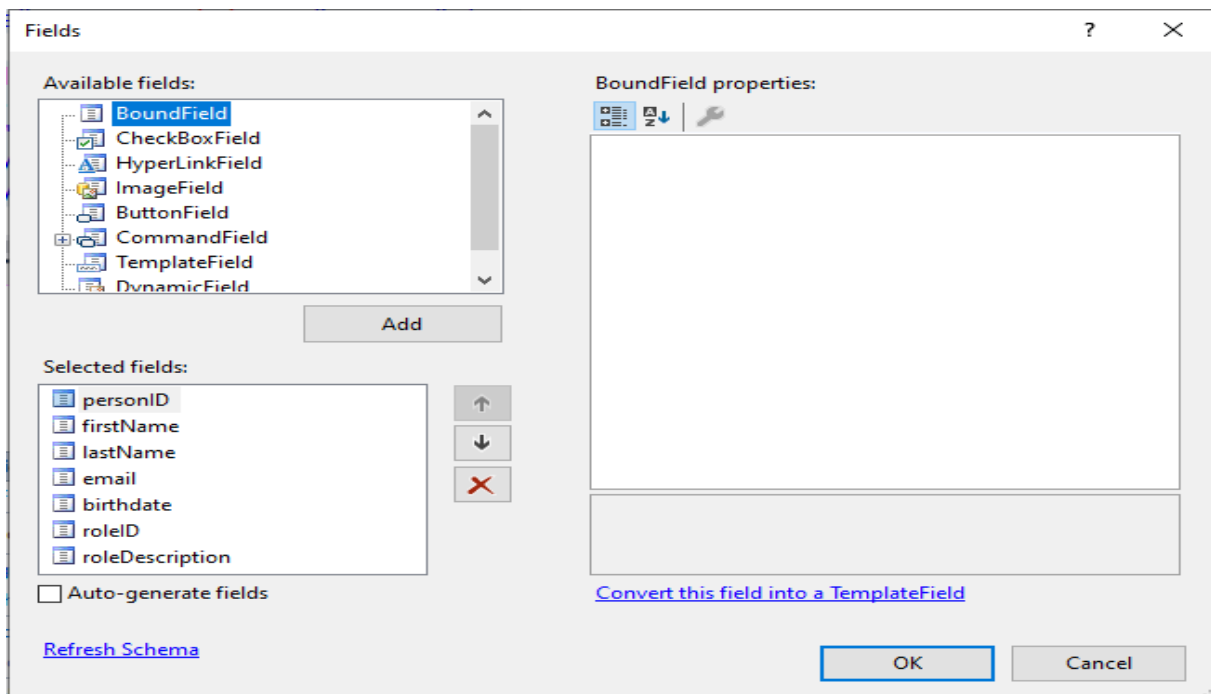
38. Here is the grid as it should appear (if you hit run) and we want to fix the heading and also remove the time from the birthdate.

personID	firstName	lastName	email	birthdate	roleID	roleDescription
3	Katie	Burgess	burgessk@uncw.edu	3/1/1990 12:00:00 AM	2	Staff
1	Rob	Burrus	burrusr@uncw.edu	1/1/1980 12:00:00 AM	4	Administrator
2	Cem	Canel	canelc@uncw.edu	12/31/1960 12:00:00 AM	3	Faculty
4	Jill	Carrot	carrotj@gmail.com	5/22/2005 12:00:00 AM	1	Student
5	System	Nerd	nerd@gmail.com	8/15/1983 12:00:00 AM	99	System Admin
6	Hire	Person	person@employer.com	10/22/1977 12:00:00 AM	5	Employer

39. Return to the Split/Design Screen and click the right arrow on the top right of the grid. Then select Edit Columns (see next image)

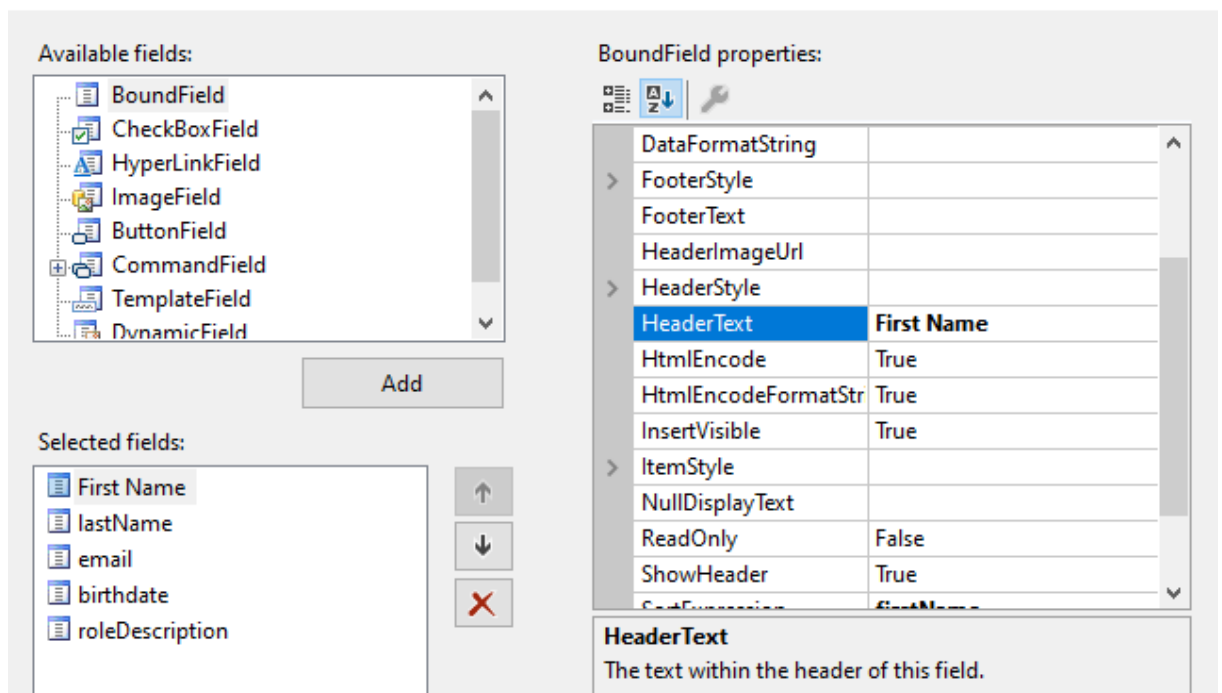
40. We do not want to show the primary key as it is useless data to the user, In the Selected Fields box, click once on personID and then click the Red X

41. Likewise we do not want to show the roleID, delete it from the grid view, using the same process as the previous step



42. Now fix the column headings, select the firstName field in the Select Fields box,

43. Then a new right column of options should appear, sort them A to Z (at top) and find the HeaderText property, and change it to First Name (with a space to make it easier to read)



44. Likewise, update the Header Text property for Last Name, Email, Role Description

45. Let's make sure we don't display the time as part of the birthdate., click on the birthdate field in the left selected fields option, and find the Data Format String property and make it {0:d}, this is similar to currency, but here we are implying show as date (d).
46. One last step, let's center the grid, click on the grid, then properties, and find the Horizontal property and center the grid
47. Save and RUN, it should all work!
48. You should be able to copy your code from the CS page for Project5.aspx.cs and paste into Project6.aspx.cs
49. The only two lines that would need to change under the submit button, is since you have a drop down list, you do not use the TEXT property for the role attribute, where you had:
 - a. `person.role = strRole` (or `_role.Text`), replace with:
 - b. `person.role = _role.SelectedItem.Text` (implies the text property for the one selected)
 - c. Change the `Response.Redirect("Project6-2.aspx")`
50. The only line that would need to change under the Clear Data button would be to reset the drop down list to the top of the list, or:
 - a. `_role.SelectedIndex = 0;` (where 0 is the first item in the list of entries)

Page 6-2.aspx

51. Open your Project6-2 and update the title and name items.
52. For the Project6-2.aspx.cs page the code should be identical to the code from Project5-2.aspx.cs.

Test and Email for Grading

53. TEST your results please, you must start with the Project6 page first and populate the text boxes and hit submit.
54. When complete send me an email for me to grade, please put MIS 316 – Grade Project 6 in the subject line.