For this assignment you will develop the "Professor Juarez" application. The application allows a teacher to select a letter grade from a "Grade:" list box and click the Display button. When this is done, a list of students with that grade are shown in a "Students:" list box and the total number of students with that grade are shown in a label under "Number of students:"

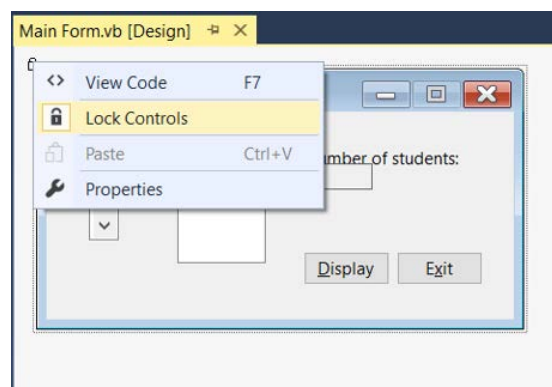Some screen shots of the form are presented below.





For this assignment you have the choice of creating the Form yourself or beginning with a solution in the student data files that already contains a partially completed version of the form (it does not include the File menu). The student data file solution can be found within the folder "VB2017\Chap08\Professor Juarez" under the location where you downloaded the student data files.

Whether you use the partially completed solution or create your own Windows Form application, please note the following when creating your solution:

1. Use "Professor Juarez" for the project name and "Professor Juarez" for the solution name.
2. The Windows Forms application should include the following form-related items including:
    - The form's file name should be "Main Form.vb"

- The form's Name should be "frmMain"
- The form's start position should be center screen (StartPosition property).
- The form should have an appropriate form title (Text property).
- Set/verify the name of the startup form to "frmMain"

3. The grades should be presented in a "Grade:" list box that includes options for choosing the letters, A, B, C, D and F. The "SelectionMode" of the list box should be "One" so that only one item can be selected.
4. The "Students:" list box is used to present the names of the students with the selected grade. The "SelectionMode" should be "None" since this list box is for display purposes only.
5. The Number of Students should be displayed with a label.
6. You should add a **File menu** item with at least one entry, **Exit**, that exits the application. (For this assignment you must add the File->Exit menu item and code the event procedure. The Exit **button** is optional, so if you're using the student data files solution as a starting point, you can delete it if you wish.)

   Note: If you're using the student data files as a starting point you need to unlock the Professor Juarez Form in order to add the File->Exit menu item. You do this by right-clicking on the little icon that looks like a lock in the upper-right portion of the form and selecting "Lock Controls". Though it says "Lock Controls" this option both locks and unlocks the form so you can add/remove new controls (like a menu item)



7. Use appropriate names for any controls you add, including the appropriate 3-letter ID prefixes.
8. When the form is first loaded, please make sure the first grade in the list box, 'A', is preselected. You can do this by setting the SelectedIndex of this listbox to 0 within the form's Load event procedure. (See page 204 of your textbook.)
9. Please be sure to clear the "Students:" list box and the "Number of Students:" label whenever a new letter grade is selected from the "Grades:" list box. This prevents the user/teacher from seeing incorrect values is he/she selects a new letter grade but has not hit the Display button yet.
10. Code the "Display" button. That is, code the "Display" button's Click event procedure.

The data for the student names and student grades is contained within initialized arrays as follows:

```
Dim strNames() As String = {"Helen", "Peter", "Yolanda", "Carl", "Jennifer",
"Charles", "Addison", "Aiden", "Treyson", "Sydney", "Jacob", "Nancy", "George",
"Ursula", "Jack"}

Dim strGrades() As String = {"A", "B", "B", "A", "D", "F", "A", "B", "A", "B", "F",
"C", "C", "B", "D"}
```

If you use the student data set as a starting point these arrays are already declared in the solution. If you create your own Windows Form Application, you can add the arrays as shown above.

When the user/teacher selects a letter grade from the "Grade:" list and clicks Display, your code should traverse the strGrades() array above and, whenever a matching letter grade is found in the strGrades() array, you should add the corresponding name from the strNames() array into the "Students:" list box and increment a counter that will count the total number of students with this grade. When you're done traversing the loop, the total number of students with this grade should be assigned to the "Number of Students:" label.

Note: you can read the currently selected value from a listbox and convert it to a string using the following syntax:

```
strGrade = lstGrades.SelectedItem.ToString
```

11. Code the **Exit menu**. (If you include an Exit **button**, code this as well. If you use the solution from the student data files the Exit button is already coded.)
12. Establish appropriate Access Keys and Tab order.
13. Add an appropriate comment header to your program and any other appropriate comments in the code.
14. Test your program. Make sure to test the Access Keys, Tab order, Exit Menu (and button, if appropriate) and "Display" Buttons.