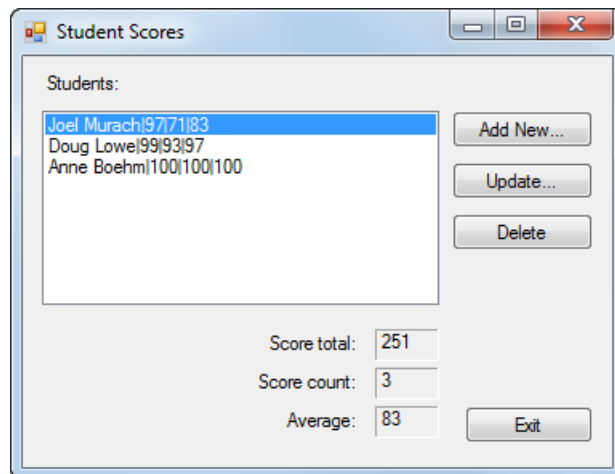


Project 2-2 Maintain student scores

For this project, you'll develop an application that lets the user add students to a list, change the scores for a student in the list, and delete a student from the list. Prerequisites: chapters 1-10.

The design of the Student Scores form

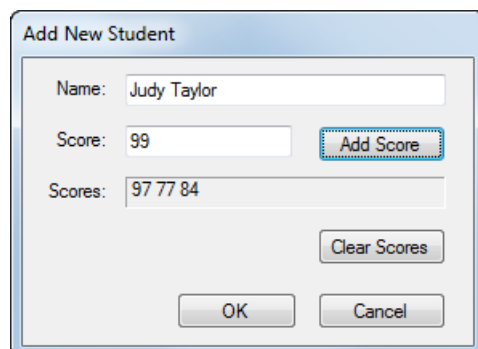


The screenshot shows a window titled "Student Scores". It contains a list box labeled "Students:" with three entries: "Joel Murach|97|71|83", "Doug Lowe|99|93|97", and "Anne Boehm|100|100|100". To the right of the list box are three buttons: "Add New...", "Update...", and "Delete". Below the list box, there are three labels with corresponding text boxes: "Score total:" with "251", "Score count:" with "3", and "Average:" with "83". An "Exit" button is located at the bottom right of the window.

Operation

- To display the total, count, and average for a student, the user selects the student from the list box. If the list box is empty, the total, count, and average labels should be cleared.
- To add a new student, the user clicks the Add New button to display the Add New Student dialog box.
- To update an existing student's scores, the user selects the student in the list box and clicks the Update button to display the Update Student Scores dialog box.
- To delete a student, the user selects the student in the list box and clicks the Delete button.

The design of the Add New Student form



The screenshot shows a dialog box titled "Add New Student". It contains three input fields: "Name:" with "Judy Taylor", "Score:" with "99", and "Scores:" with "97 77 84". There are three buttons: "Add Score" (highlighted with a dashed border), "Clear Scores", and "OK". At the bottom, there are "OK" and "Cancel" buttons.

Operation

- To add a new student, the user enters a student name and, optionally, one or more scores and clicks the OK button.
- To add a score, the user enters a score and clicks the Add Score button. The score is added to the list of scores in the Scores label.
- To remove all scores from the Scores label, the user clicks the Clear Scores button.
- To cancel the add operation, the user clicks the Cancel button.

The design of the Update Student Scores and Add/Update Score forms

The image displays three distinct dialog boxes for managing student scores. The 'Update Student Scores' dialog on the left features a 'Name' field with 'Joel Murach', a 'Scores' list box containing 97, 71, and 83, and buttons for 'Add', 'Update', 'Remove', 'Clear Scores', 'OK', and 'Cancel'. The 'Add Score' dialog on the top right has a 'Score' field with 88 and 'Add' and 'Cancel' buttons. The 'Update Score' dialog on the bottom right has a 'Score' field with 97 and 'Update' and 'Cancel' buttons.

Operation

- To add a score, the user clicks the Add button and enters the score in the Add Score dialog box that's displayed.
- To update a score, the user selects the score, clicks the Update button, and changes the score in the Update Score dialog box that's displayed.
- To remove a score from the Scores list box, the user selects the score and clicks the Remove button.
- To remove all scores from the Scores list box, the user clicks the Clear Scores button.
- To accept all changes, the user clicks the OK button.
- To cancel the update operation, the user clicks the Cancel button.

Specifications

- This application should make sure that the user enters a name for a new student. However, a new student can be added without any scores.
- This application should check all scores entered by the user to make sure that each score is a valid integer from 0 to 100.
- When the application starts, it should load the list box with three sample students.

Hint

- To get the labels that display the score total, score count, and average on the Student Scores form, the scores on the Add New Student form, and the name on the Update Student Scores form to look like the ones shown above, you'll need to set the AutoSize property of the labels to False and the BorderStyle property to Fixed3D.