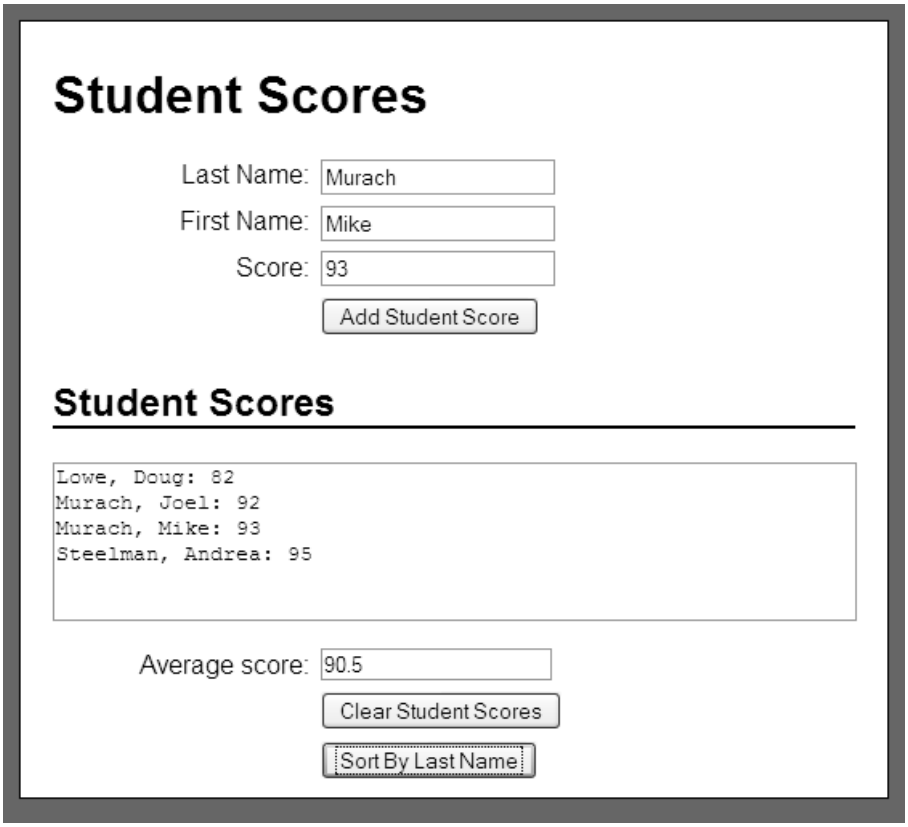
Project 2: Student Scores / Grades

User interface



Operation

- This application stores the last name, first name, and score for one or more students and it calculates the average score for all of the scores that have been entered.
- When the user clicks on the Clear button, this application clears the score data from this application.
- When the user clicks on the Sort button, this application sorts the data in alphabetical order by last name.

Specifications

- The program should use one or more arrays to store the data.
- Do not assume that the user will enter valid numerical data. Assume scores should be between 0.0 and 100.0
- ***BONUS – Not required. Display the following along with the average***
  - ***Standard deviation:***
  - $$s = \sqrt{\frac{\sum(x - \overline{x})^2}{N - 1}}$$
    - $where$
    - $s = the\ standard\ deviation$

- $x = each\ value\ in the\ sample$
- $\overline{x} = the\ mean\ of\ the\ values$
- $N = the\ number\ of\ values\ (the\ sample\ size)$

- ***Variance:***
  - $$S^2 = \frac{\sum_{k=1}^{n} (x_k - \overline{x})^2}{n-1}$$
- **Example – From the values entered above**
  - **Average is 90.5**
  - **Standard Deviation is 5.8023**
  - **Variance is 33.66667**