

Input Validation: Do not accept test scores less than 0 or greater than 100.

13. Grade Book Modification

Modify the grade book application in Programming Challenge 12 so it drops each student's lowest score when determining the test score averages and letter grades.

14. Lottery Application

Write a program that simulates a lottery. The program should have an array of five integers named `lottery` and should generate a random number in the range of 0 through 9 for each element in the array. The user should enter five digits, which should be stored in an integer array named `user`. The program is to compare the corresponding elements in the two arrays and keep a count of the digits that match. For example, the following shows the `lottery` array and the `user` array with sample numbers stored in each. There are two matching digits (elements 2 and 4).

Lottery array:

| | | | | |
|---|---|---|---|---|
| 7 | 4 | 9 | 1 | 3 |
|---|---|---|---|---|

User array:

| | | | | |
|---|---|---|---|---|
| 4 | 2 | 9 | 7 | 3 |
|---|---|---|---|---|

The program should display the random numbers stored in the `lottery` array and the number of matching digits. If all of the digits match, display a message proclaiming the user as a grand prize winner.

15. vector Modification

Modify the National Commerce Bank case study presented in Program 7-23 so `pin1`, `pin2`, and `pin3` are vectors instead of arrays. You must also modify the `testPIN` function to accept a vector instead of an array.

16. World Series Champions

If you have downloaded this book's source code, you will find the following files in this chapter's folder:

