

# Programming Exercise for Bridge Week

## Automated Tester

### C# Step by Step

This exercise asks you to implement a multiple choice test. You may generate your own test, there is no restriction. However, to save you this effort, the file in the current directory named `pres-test.csv` is available if you choose to use it. This file is in comma separated value (CSV) format. The first record in each line contains the question, the second record contains the correct answer, and the next three records contain distractors, which are incorrect answers. Each line contains five records in all, separated by commas and delimited by double quotes. If you generate your own test, you should follow this format.

Here are the requirements:

1. The program will first read in the test bank (CSV file) and put the data into some appropriate data structure. This part of the exercise requires you to learn how to open a file, read each line, and parse the records in each line. The data structure is the *test bank*.
2. When invoked, the program will ask the user to enter an integer between 1 and the number of questions in the test bank. This represents the number of questions that the test will contain.
3. The program will read the input from the user into a variable named `numberOfQuestions`.
4. The program will select `numberOfQuestions` questions(s) from the test bank *at random*. Questions will not be repeated.
5. The program will present the questions to the user one at a time, along with the answer choices. The answer choices (both correct and incorrect) will be presented randomly. In the test bank, the first answer is the correct answer, so the choices presented to the user must be random.
6. The program will ask the user for his choice, test the user input against the correct answer, and record the number of correct responses. If the user answers the question correctly, the program will reinforce the correct response with positive feedback. If the user answers the question incorrectly, the program will display the correct answer.
7. When the test is concluded, the program will report the numerical score to the user.

Optionally, your program may present to the user a choice of different test banks. If you write your program correctly, it will work regardless of the subject matter of the test bank.