CIS1280 C# /.NET I

Lottery game

Objective: Write a simple class using a random number generator

# Program Requirements:

1. **3 pts** Write your name, email address and file name at the top of your source code in a comment.
2. **5 pts.** Use Console.Write() or Console.WriteLine() statements to write your name, program title, and program objective to the screen so that it is the first thing I see when your program runs. This is your header.
3. **5 pts** Use good C# programming style and formatting for your program.
4. **5 pts** Use appropriate comments to explain what you are doing.

Create a console-based lottery game application for the C# lottery. In Main, first display your header. Open a do-while play loop. Use the Random class to generate three random numbers, each between 1 and 4. Read msdn documentation on random class <https://msdn.microsoft.com/en-us/library/system.random(v=vs.110).aspx>. Note, in C# we have to instantiate classes using the new operator.

Ask the user to guess three numbers. Compare each of the user’s guesses to the three random numbers and display a message that includes the user’s guess, the randomly determined three-digit number, and the amount of money the user has won as follows:

|  |  |
| --- | --- |
| **Matching Numbers** | **Award ($)** |
| Any one matching | 10 |
| Two matching | 100 |
| Three matching, not in order | 1000 |
| Three matching in exact order | 10000 |
| No matches | 0 |

Make certain that your application accommodates repeating digits. For example, if a user guesses 1, 2 and 3, and the randomly generated digits are 1, 1,and 1, do not give the user credit for three correct guesses – just one.

Ask the user if he/she wants to try to buy another lottery ticket. Tell the user what the choices are for a valid answer. If the answer is yes, loop back up to the top of the do-while loop. If not, exit with a good-bye message.

Name the C# file Lottery.cs.

QA Checklist

|  |  |  |
| --- | --- | --- |
| Quality Check | How verified? (example: verified in source code or verified in output or tried test case, etc.) | Pass/Fail |
| Name, email address and file name at the top of each source code file in a comment? |  |  |
| Used Console.Write() or Console.WriteLine() statements to write your name, program title, and program objective to the screen so that it is the first thing I see when your program runs? |  |  |
| Used good C# programming style and formatting for your program? |  |  |
| Used appropriate comments to explain what you are doing? |  |  |
| Is there a do-while play loop. |  |  |
| Used the Random class to generate three random numbers, each between 1 and 4. |  |  |
| Ask the user to guess three numbers. |  |  |
| Compared each of the user’s guesses to the three random numbers and display a message that includes the user’s guess, the randomly determined three-digit number, and the amount of money the user has won as follows: |  |  |
| Properly awards the following: | ----- | ------ |
| Any one matching |  |  |
| Two matching |  |  |
| Three matching, not in order |  |  |
| Three matching in exact order |  |  |
| No matches |  |  |
| Make certain that your application accommodates repeating digits. For example, if a user guesses 1, 2 and 3, and the randomly generated digits are 1, 1,and 1, do not give the user credit for three correct guesses – just one. |  |  |
| Askes the user if he/she wants to try to buy another lottery ticket. Tell the user what the choices are for a valid answer. If the answer is yes, loop back up to the top of the do-while loop. If not, exit with a good-bye message. |  |  |
| Named the C# file Lottery.cs. |  |  |