

Matrix Programming Assignment

Write a Console program to play Mastermind

The application creates a secret code of 4 digits. Each digit must be between 1 and 6. The code breaker (user) gets some number of chances to figure out the code (configurable). The code breaker will enter their guess at the command line when prompted (ex: 1234). The application will then respond with some number of +’s and -’s where the +’s are always printed before the -’s. If the code breaker guesses correctly, the program prints “You solved it!”. If the code breaker runs out of tries, the program prints “You lose :(“

The scoring rules are:

For each number in the guess that matches the number and position of a number in the secret code, the score includes one plus sign. For each number in the guess that matches the number but not the position of a number in the secret code, the score includes one minus sign.

Each position in the secret code can only be matched once. For example, a guess of 1134 against a secret code of 1234 would get three plus signs: one for each of the exact matches in the first, third and fourth positions. The number match in the second position would be ignored.

Programming Language

C# is preferred. If you listed C# on your resume, C# is expected. If you do not know C#, we will also accept Java.

Tools

You can use [Visual Studio Express](#) or other IDEs or your favorite text editor. Feel free to do as much research as you’d like. But refrain from copying and pasting code from the internet!

Style

We want to see what you think good maintainable code looks like. As such use whatever code style, design approach, and architecture you prefer for solving this problem.

Followup

Email your completed assignment back to us. Once we’ve reviewed it, we will schedule a phone interview with you to discuss your solution.