**Algorithm Workbench Exercise#4 – – LOGIC ROUTINES USING NESTED LOOPS WITH IF-ELSE STATEMENTS**

**EXTRA CREDIT (10pts) - DUE MONDAY MARCH 7, 2023**

As we continue with our study of programming fundamentals, here is a short extra credit programming challenge involving repetition control structures. To be specific, the program specifications below and the algorithm you develop and write will involve the set-up and use of both while and do-while loops.

**Random Number Guessing Game**

Write a program that generates a random number between 5 and 15 and asks the user to guess what the number is. If the user’s guess is higher than the random number, the program should display ***Too high. Try again***. If the user’s guess is lower than the random number, the program should display ***Too low, Try again***. The program should use a loop that repeats while keeping a count of the number of guesses the user makes until the user correctly guesses the random number. Then the program should display the number of guesses along with the following message ***Congratulations. You figured out my number***. Suggest that you also give the user the opportunity to play the game again or quit.

(HINT: See [career\_predictor2.cpp](http://www.sonic.net/sarkar/cs10sum2017/wks6_8/career_predictor2.cpp) for a sample set-up and implementation of random numbers that maybe helpful)

Since this short programming exercise is "optional" i.e.., not a required assignment and if you have completed assignments 1- 6, the 10 extra credit points earned here will be added as bonus points to your midterm examination point tally for the Spring 2023 session.

Thanks, Sujan!

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