# PA#4: Guess My Number!

In this C++ programming assignment, you will write a guessing game from two perspectives: a) the computer guesses player's number and b) the player guesses computer's number.

## Program Flow

In order to help you with this assignment, I have provided a high-level pseudocode description of each mode.

### Version A (Computer Guess)

* Pause to let the player think of a number (HINT: use a blank input() statement)
* Until the correct number has been chosen, do the following:
  + The computer picks a starting value
  + If the value is not correct, adjust the guess based on the player's reaction (too high or too low). Loop until correct.

### Version B (Player Guess)

* Until the correct number has been chosen, do the following:
  + Ask the player for a guess
  + If that number is too high, inform the user that their guess was too high
  + If that number is too low, inform the user that their guess was too low
  + If the number equals the random number, tell the user that they've guessed correctly

## Sample Output

There are the two output scenarios. The first is the case in which the computer is trying to guess a number:

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| Let's play a guessing game! Who will be guessing? (P)layer or (C)omputer: C  Please think of a number between 0 and 100. When you have thought of a number, press enter to continue.  The computer guesses: 50  Is the number too high (H), too low (L), or correct (C)? l  The computer guesses: 75  Is the number too high (H), too low (L), or correct (C)? h  The computer guesses: 62  Is the number too high (H), too low (L), or correct (C)? c  I've won again! |

The next occurs when the player is attempting to guess the number.

|  |
| --- |
| Let's play a guessing game!  Who will be guessing? (P)layer or (C)omputer: P  The computer will think of a number  I (the computer) have thought of a number between 0 and 100.  Take a guess: 50  Your guess was too low!  Take a guess: 75  Your guess was too high!  Take a guess: 65  You've guessed my number! |

## Deliverables

You must upload your submission through Canvas no later than midnight on Friday October 12, 2018.

## Grading Criteria

Your assignment will be judged by the following criteria (80 pts possible):

* [20] Your programs run without crashing
* [20] You've successfully implemented version A (computer guess)
  + [10] Your computer is able to guess any number between 0 and 100 in less than 10 tries.
* [20] You've successfully implemented version B (player guess)