Nicholas Rahbany - Algorithm

UML Class Diagram

+	public
-	private
	package
#	protected

legend

+	GuessingGame

| + | main(args:String []) |
| + | checkGuess(userGuess: char) |

Data Table for main(args)

Variable or Constant	Type	Purpose
args	String []	parameter, unused
guesses	Integer	Number of guesses available
upperLimit	int	User defined limit for the random number
magicNumber	final int	Random generated number
guess	int	User's guess
userGuess	int	User's guess used in checkGuess method
compNumber	int	The computer's random number for checkGuess method

Algorithm for main(args)
main(args)
    create Random
    create Scanner
    print for user input of the upper limit
    set upper limit
    if upper is less than 10
        set upper = 10
    final integer magicNumber = random upperLimit + 1
    print for user to enter number of guesses
    if the guesses are greater than 4
        guesses = 4
    while you still have guesses, ask for the user's guess
    check if guess is right with checkGuess method
    if guess is right
        player wins
    else,
        subtract one from guesses
        if player has guesses, ask for another guess
        else if there are no guesses, player loses

checkGuess(int userGuess, int compNumber)
    define userGuess
    define compNumber
    if userGuess = compNumber, return true
    else, return false