In [2]:
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from random import randint
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In [ ]:
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def guess_a_number():
    """Game to guess a number the computer randomly generated."""

    random_number = randint(0, 100)

    demo_or_play = str(input("Do you want the computer to guess the
number? If so, say 'demo'! "))
    if demo_or_play == 'demo':
        demo_a_number(random_number)
    else:
        guess = check_raw("Please enter an integer between 0 and 10
0: ")
        count_guesses = 1
        while guess != random_number:
            count_guesses = count_guesses + 1
            guess = evaluate_my_number(guess, random_number)
        else:
            print(('Hooray! Your guess is right!\nYou needed {}
guesses.'.format(count_guesses)))

    new_game = str(input("Do you want to play again? If so, say 'ye
s'! "))
    if new_game == 'yes':
        guess_a_number()
    else:
        print('Goodbye!')


def evaluate_my_number(guess, random_number):
    """Is the guess to high or to low? Guess again!"""

    if guess < random_number:
        print('Too low!', end=' ')
    else:
        print('Too high!', end=' ')

    guess = check_raw()
    return guess


def check_raw(print_string='Please try again: '):
    """Gets the string, raw_input should print, checks and returns
the input."""

    try:
        checked_int = int(input(print_string))
        if checked_int < 0 or checked_int > 100:
            print('Your number has to be between 0 and 100!', end='
')
            checked_int = check_raw()
    except ValueError:
        print('That was not an integer!', end=' ')
```

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        checked_int = check_raw()

    return checked_int


def demo_a_number(random_number):
    """The computer tries to guess the number"""

    current_number = 50
    lower_bound = 0
    upper_bound = 100

    count_computer_guesses = 1
    while current_number != random_number:
        count_computer_guesses = count_computer_guesses + 1
        print(('The computer guessed {}'.format(current_number)))
        if current_number < random_number:
            print('That was too low.')
            lower_bound = current_number
        else:
            print('That was too low.')
            upper_bound = current_number
        current_number = (lower_bound + upper_bound) // 2
    else:
        print(('The computer guessed {}\nThat was right! \
        After {} guesses'.format(current_number, count_computer_gue
sses)))


guess_a_number()
```