

Module 5: Game Program

In this module we are going to create a game program.

When you run this game the computer will pick a secret number between 1 and 10 and you try to guess it.

check_guess.py Helper Function

Before we begin, we are going to need to create a helper function that will test guesses.

Enter the following code and save it to a file called "check_guess.py":

```
def check(guess, secret):  
    '''Compare a guessed number against a secret number.  
  
    Return True if game over (guessed or quit requested).  
    '''  
  
    if "Q" == guess:  
        print("Good bye!")  
        return True  
  
    if guess < secret:  
        print("No. Your guess was too low.")  
        return False  
  
    if guess > secret:  
        print("No. Your guess was too high.")  
        return False  
  
    print("Correct! You guessed my number!")  
    return True
```

Run the program. Then you can make a call to your function by typing into the console:

```
>>> check(guess, secret)
```

where you will substitute values for the arguments:

- *guess* – this represents a number that the person is guessing
- *secret* –this represents a secret number chosen by the computer that the person is trying to guess

Main Program

Enter the following code and save it to a file called "guess_my_number.py":

```
'''guess_my_number.py - A simple number guessing game.

Computer picks a number, human tries to guess it.
'''

from random import randint
from prompt_for_guess import ask
from check_guess import check

print("I am thinking of a number between 1 and 10.")
secret = randint(1, 10)

print("Can you guess my number?")

game_over = False
while not game_over:
    game_over = ask("\nWhat is your guess? (type 'q' to give up) : ")
    game_over = check(guess, secret)

print("Thank you for playing my game.")
```

This is the entire game! It's not that big because we put a lot of the work into functions.

Just start this program and the game will run.