SCORE: __/25

Pangasinan State University
Urdaneta City Campus
Assignment 1 - Finals
Elective 4 (Special Topics on Web and Mobile 2)

Name: Cedric Joel F. Cayaban	Block:4A	Date: December 02, 2024 Deadline December 10, 2024, 5:00pm

Create a simple word-guessing game where the program selects a random word, and the player must guess it letter by letter. After the game ends, the program will display statistics such as the number of attempts and the time taken to guess the word.

1pt	Create a user-defined module `game_functions.py`
2pts	choose_word(): Randomly selects a word from a predefined list of words. words = ["python", "java", "laravel", "programming", "inheritance"]

Code Here	def choose_word():
	  words = ["python", "java", "laravel", "programming", "inheritance"]
	  answer = random.choice(words)
	  return answer

2pts	get_guess(): Prompts the player to guess a letter and return it.

Code Here	def get_guess(answer, attempts, userGuesses, correctGuesses):
	  answerList = list(answer)
	  while True:
	  guess = input('Guess a letter: ') .lower()
	  if not guess.isalpha():
	  print('Error: Letters only\n')
	  elif len(guess) > 1:
	  print('Error: Single character only\n')
	  elif guess not in answer:
	  print(f"Incorrect guess! The letter '{guess}' is not in the word")
	  userGuesses.append(guess)
	  attempts += 1
	
	  else:
	  if correctGuesses.count(guess) >= answerList.count(guess):
	  print(f"You already guessed the letter '{guess}. Try a different one.'")
	  else:
	  attempts += 1
	  return guess, attempts

3pts	display_word(): Displays the word with guessed letters revealed and unguessed letters as underscores.

Code Here	def display_word(answer, correctGuess):
	  correctCounts = Counter(correctGuess)
	
	  for letter in answer:
	  if correctCounts[letter] > 0:
	  print(letter, end=' ')
	  correctCounts[letter] -= 1
	  else:
	  print('_', end=' ')
	
	  print()

2pts	update_guess_history(): Tracks and updates the number of guesses for each letter using collections.Counter.

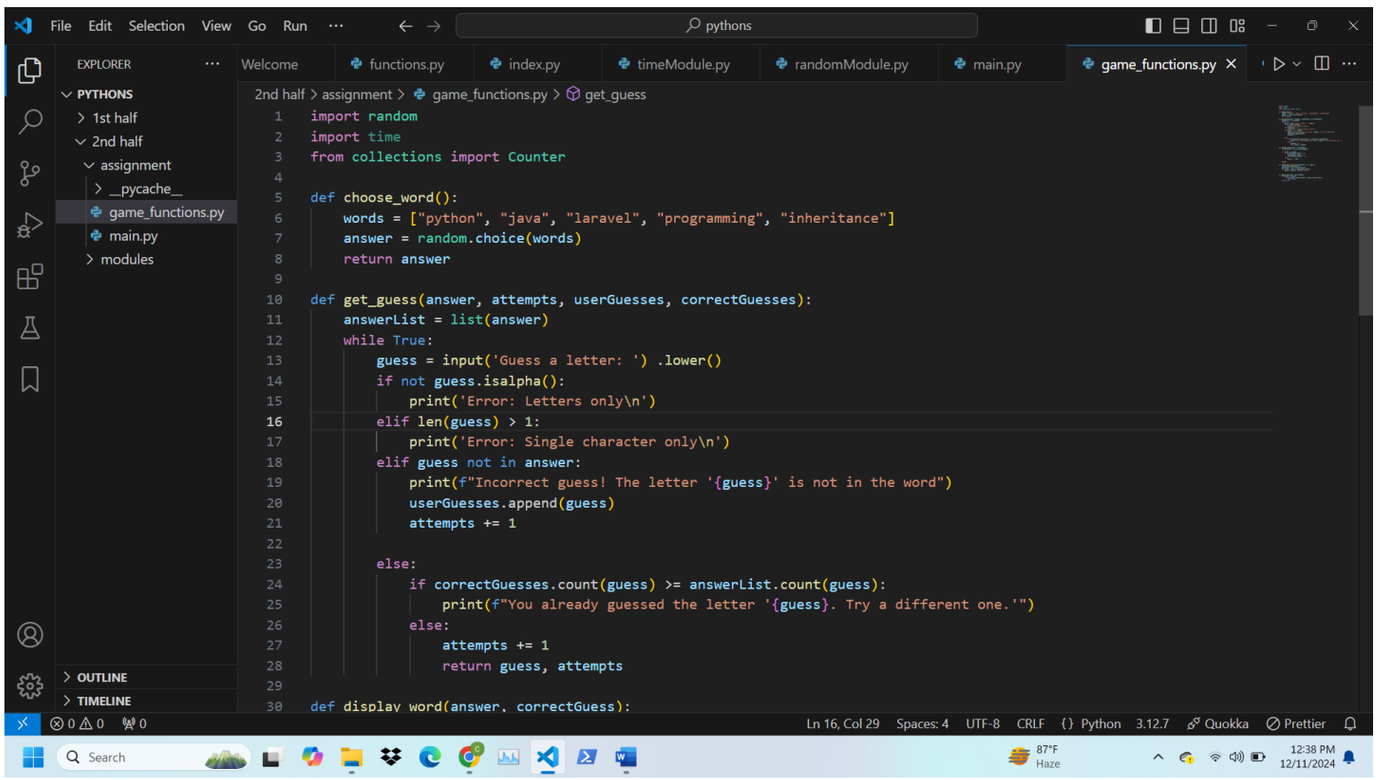
Code Here	def update_guess_history(userGuesses: list, guess):
	  userGuesses.append(guess)
	  guessCounts = Counter(userGuesses)
	  for letter, tries in guessCounts.items():
	  print(f'{letter}: {tries} tries')

3pts	game_over(): Checks if the player has guessed all letters in the word correctly and ends the game.

Code Here	def game_over(answer, correctGuess):
	  for letter in answer:
	  if correctGuess.count(letter) < answer.count(letter):
	  return False
	  return True

1pt	Create your main program `main.py`
1pt	Import the functions from the `game_functions.py` module and start the game by calling the `choose_word function`.

Full clear screenshots of the code (NO CROPPING)
`game_functions.py`



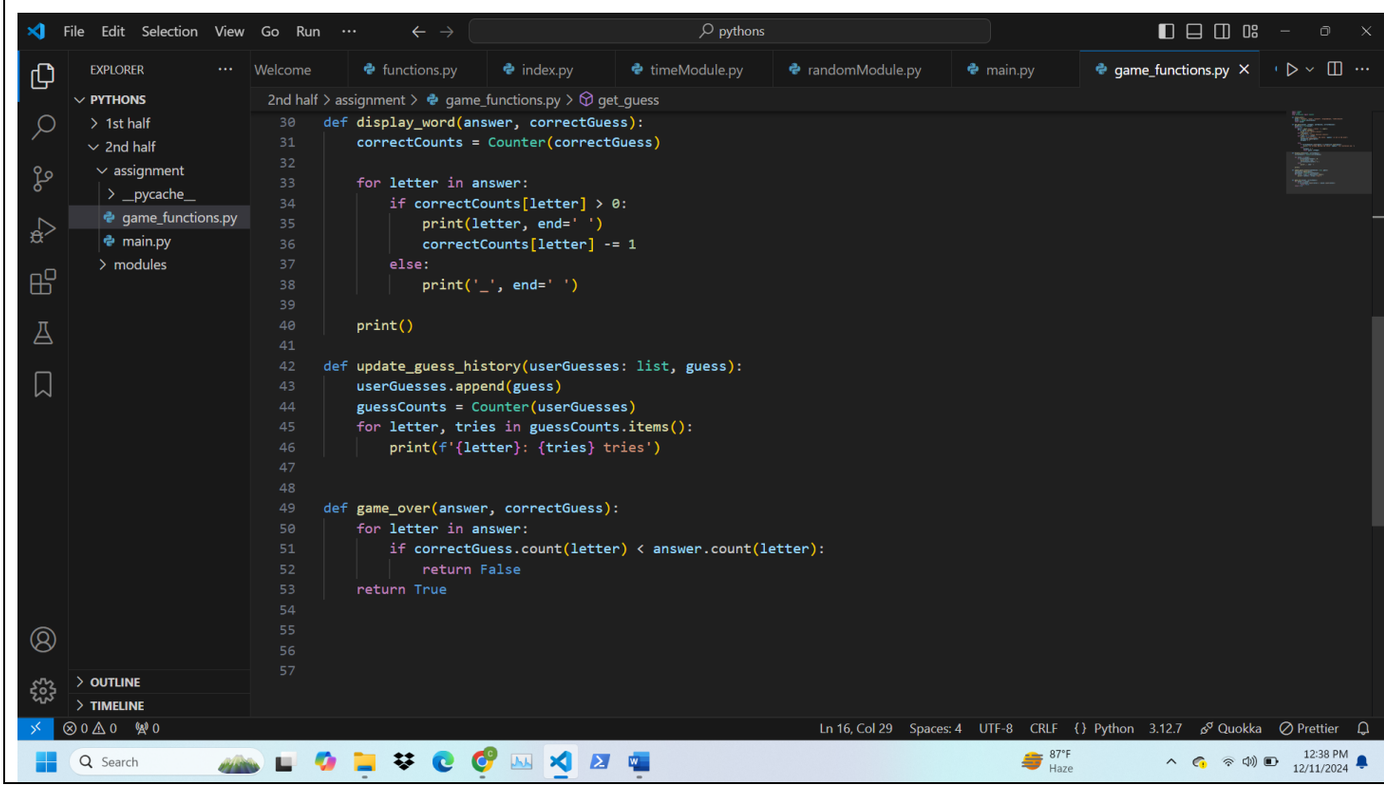
```
import random
import time
from collections import Counter

def choose_word():
    words = ["python", "java", "laravel", "programming", "inheritance"]
    answer = random.choice(words)
    return answer

def get_guess(answer, attempts, userGuesses, correctGuesses):
    answerList = list(answer)
    while True:
        guess = input('Guess a letter: ') .lower()
        if not guess.isalpha():
            print('Error: Letters only\n')
        elif len(guess) > 1:
            print('Error: Single character only\n')
        elif guess not in answer:
            print(f"Incorrect guess! The letter '{guess}' is not in the word")
            userGuesses.append(guess)
            attempts += 1

        else:
            if correctGuesses.count(guess) >= answerList.count(guess):
                print(f"You already guessed the letter '{guess}. Try a different one.'")
            else:
                attempts += 1
                return guess, attempts

def display_word(answer, correctGuess):
```



```
def display_word(answer, correctGuess):
    correctCounts = Counter(correctGuess)

    for letter in answer:
        if correctCounts[letter] > 0:
            print(letter, end=' ')
            correctCounts[letter] -= 1
        else:
            print('_', end=' ')

    print()

def update_guess_history(userGuesses: list, guess):
    userGuesses.append(guess)
    guessCounts = Counter(userGuesses)
    for letter, tries in guessCounts.items():
        print(f'{letter}: {tries} tries')


def game_over(answer, correctGuess):
    for letter in answer:
        if correctGuess.count(letter) < answer.count(letter):
            return False
    return True
```

Full clear screenshots of the code (NO CROPPING)
`main.py`