internship_with_codealpha

December 7, 2024

0.0.1 Hangman Game

```python
[3]: import random

     # List of words for the game
     word_list = [
         "python", "hangman", "programming", "developer", "challenge", "code",
      ↪"debug", "function", "variable"]

     # Randomly select a word from the list
     word = random.choice(word_list)

     # Initialize the set of guessed letters and the number of incorrect guesses
     guessed_letters = set()
     incorrect_guess = 0

     # Set the maximum number of incorrect guesses allowed
     max_incorrect_guess = 6

     # Print the introduction and initial word state
     print("Welcome to Hangman!")
     print(f"The Word has {len(word)} letters.")
     print("_" * len(word))

     # Start the game loop
     while incorrect_guess < max_incorrect_guess:
         guess = input("Guess a letter: ").lower()

         # Validate input
         if len(guess) != 1 or not guess.isalpha():
             print("Please enter a valid single letter.")
             continue

         # Check if the letter was already guessed
         if guess in guessed_letters:
             print("You've already guessed that letter.")
             continue
```

```python
    # Add the guessed letter to the set of guessed letters
    guessed_letters.add(guess)

    # Check if the guess is correct or incorrect
    if guess in word:
        print("Good guess!")
    else:
        incorrect_guess += 1
        print(f"Incorrect! You have {max_incorrect_guess - incorrect_guess}␣
↪guesses left.")

    # Display the current state of the word with guessed letters
    current_display = ''.join([letter if letter in guessed_letters else "_" for␣
↪letter in word])
    print(current_display)

    # Check if the word is completely guessed
    if "_" not in current_display:
        print("Congratulations! You've guessed the word.")
        break
else:
    # If the player reaches the maximum number of incorrect guesses
    print(f"Game Over! The word was: {word}")
```

```
Welcome to Hangman!
The Word has 7 letters.
_____
Guess a letter:  h

Good guess!
h_____
Guess a letter:  a

Good guess!
ha___a_
Guess a letter:  n

Good guess!
han__an
Guess a letter:  g

Good guess!
hang_an
Guess a letter:  m

Good guess!
hangman
```

Congratulations! You've guessed the word.