Day -4

```python
import random

def choose_word():
    words = ["python", "hangman", "programming", "computer", "science",
"developer", "challenge"]
    return random.choice(words)

def display_word(word, guessed_letters):
    display = ""
    for letter in word:
        if letter in guessed_letters:
            display += letter
        else:
            display += "_"
    return display

def hangman():
    max_attempts = 6
    guessed_letters = []
    word_to_guess = choose_word()
    attempts = 0

    print("Welcome to Hangman!")

    while attempts < max_attempts:
        print("\nWord:", display_word(word_to_guess, guessed_letters))
        guess = input("Guess a letter: ").lower()

        if guess.isalpha() and len(guess) == 1:
            if guess in guessed_letters:
                print("You already guessed that letter. Try again.")
            elif guess in word_to_guess:
                print("Good guess!")
                guessed_letters.append(guess)
            else:
                print("Incorrect guess. Try again.")
                guessed_letters.append(guess)
                attempts += 1
        else:
            print("Invalid input. Please enter a single letter.")

        if set(guessed_letters) == set(word_to_guess):
            print("\nCongratulations! You guessed the word:", word_to_guess)
```

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            break

    if attempts == max_attempts:
        print("\nSorry, you ran out of attempts. The word was:",
word_to_guess)

if __name__ == "__main__":
    hangman()
```

```
Welcome to Hangman!

Word: _________
Guess a letter: e
Good guess!

Word: _e_e___e_
Guess a letter: d
Good guess!

Word: de_e___e_
Guess a letter: v
Good guess!

Word: deve___e_
Guess a letter: l
Good guess!

Word: devel__e_
Guess a letter: o
Good guess!

Word: develo_e_
Guess a letter: p
Good guess!

Word: develope_
Guess a letter: r
Good guess!

Congratulations! You guessed the word: developer
PS C:\Users\91817\OneDrive\Desktop\swetha py>
```